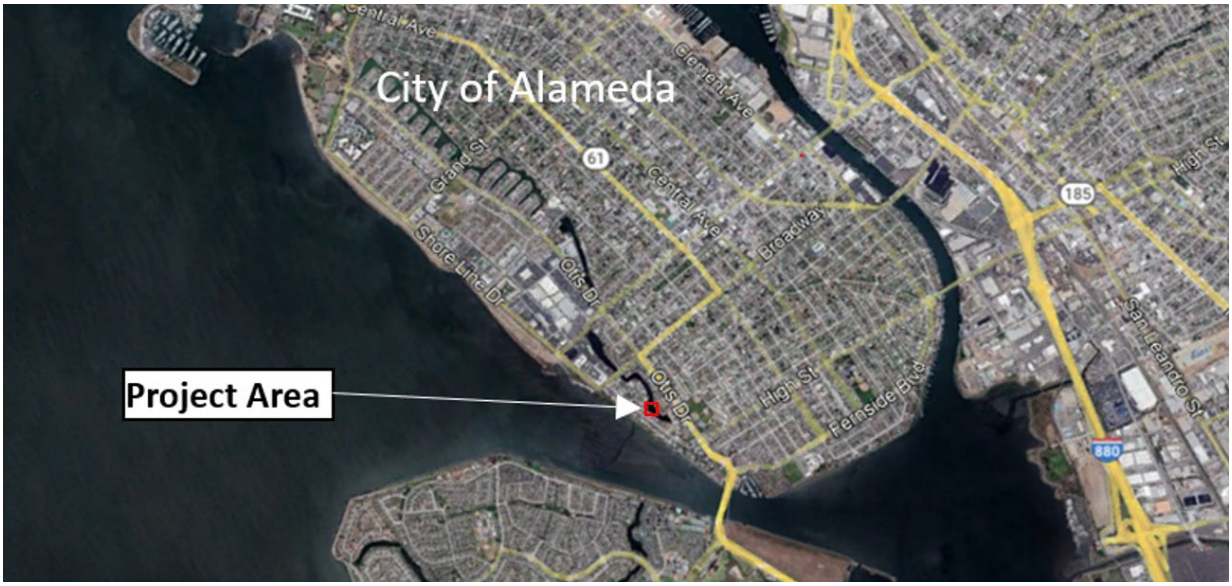
2024 Addendum to
THE CITY OF ALAMEDA
DREDGED MATERIAL MANAGEMENT PROGRAM
2014 Initial Study and Mitigated Negative Declaration



May 2024

Prepared for:
City of Alameda
Public Works Department
950 West Mall Square, Room 110
Alameda, CA 94501-7575
Contact: Andrew Nowacki
e-mail: anowacki@alamedaca.gov

Prepared by:
Area West Environmental, Inc.
6248 Main Avenue, Suite C
Orangevale, CA 95662
Contact: Aimee Dour-Smith
(916) 987-3362
e-mail: adour-smith@areawest.net

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1.0 BACKGROUND

Pursuant to the California Environmental Quality Act (CEQA), the City of Alameda ("City") prepared an Initial Study/ Mitigated Negative Declaration (IS/MND) for the Dredged Material Management Program (DMMP), published in January 2014 and adopted by the City Council on April 14, 2014 ("2014 IS/MND"). A Notice of Determination (NOD) was filed with Alameda County and the State Clearinghouse. The DMMP describes the removal of sediment and debris from the internal lagoon system on Alameda Island to improve lagoon water quality, wildlife habitats, and stormwater detention function. The dredging encompassed by the 2014 IS/MND included approximately 12,000 cubic yards of material from 28 priority areas within the system managed by the City and the Alameda West Lagoon Homeowners Association (AWLHOA). The project was issued a dredging permit through the San Francisco Dredged Material Management Office (DMMO) of the Army Corps of Engineers, and a Water Quality Certification from the California Water Quality Control Board.

This addendum incorporates by reference the environmental analysis completed for the DMMP, including the adopted 2014 IS/MND, all technical appendices and reports produced for the DMMP, and all associated references.

Currently, the City of Alameda and AWLHOA are proposing to complete additional maintenance dredging in Lagoon 5 under the DMMP. The purpose of this Addendum is to address the potential environmental impacts and required mitigation measures of the Lagoon 5 maintenance activities with respect to the original scope of the 2014 DMMP.

2.0 PROJECT INFORMATION

Project Name:

Lagoon 5 Maintenance Dredging

Location:

City of Alameda, Alameda County

Agencies and Authorizations Required:

Dredged Material Management Office (DMMO)	Consolidated Dredging-Dredged Material Reuse/Disposal Application
San Francisco Bay Regional Water Quality Control Board (RWQCB)	Section 401 Water Quality Certification
San Francisco District U.S. Army Corps of Engineers (USACE)	Section 404 Nationwide Permit 3
City of Alameda	Building Permit/Work within Right of Way

3.0 PROJECT SETTING

As described in the 2014 IS/MND, the City of Alameda contains five connected internal water features known as the Alameda Lagoons ("Lagoons") that were created in the 1950s when the

island of Alameda was expanded. Approximately 350 acres of landfill was added to the tidal flats, creating a residential community and associated services and facilities. Artificial fill near the lagoons is expected to be up to 15 feet thick with the underlying native material consisting of unconsolidated marine clays.

The Lagoons are identified by number (Lagoon 1, Lagoon 2, Lagoon 3, Lagoon 4, Lagoon 5) with the division of Lagoons delineated by a physical break between open water (bridge/road or land development). Lagoons 1, 2, and 3 are the largest lagoons, and Lagoon 4 and 5 the smallest. The lagoons are supplied with bay water via an intake pipe and pump into Lagoon 1, at a rate of approximately 3,000 gallons per minute (gpm). The water then moves by gravity through the five lagoons. There is a weir at Willow Street, between Lagoons 2 and 3, and a weir at Bayview Drive, at the end of Lagoon 5 (known as the Bayview weir), that regulates the water level. There is no direct surface access between the lagoons and the bay, nor is there surface access between the lagoons, except between Lagoons 1 and 2 under the Grand Street Bridge. The average lagoon depth is approximately 3 feet, and the maximum depth is approximately 6 feet.

The lagoons provide an internal network for wildlife viewing, small non-motorized watercraft recreation, swimming, and aesthetic purposes. There is no direct public access to the lagoons since they were created primarily for private, residential recreation access.

The lagoons, and associated banks and adjacent residential vegetation, also serve as habitat for various species of wildlife, including nesting and migratory birds. Local domestic and feral wildlife also utilize the lagoon environment. The lagoon banks are planted with native and non-native species typical of residential rear-yard environments and include trees and large shrubs that are capable of shedding leaves and needles into the lagoon environment.

Finally, the lagoon system serves as a storm water detention and settling basin. Approximately 1,000 acres (1.6 square miles) of the city drains into the lagoons via overland drainage and storm drain pipes.

3.1 Lagoon 5 Setting

Where Lagoon 1 is the intake lagoon for the entire system, Lagoon 5 is the end of the system where the Bayview weir moves lagoon water into the lagoon outfall and the San Francisco Bay. Residential properties surround Lagoon 5, zoned R-1 for single-family homes. The nearest school is Otis Elementary, approximately 0.20-mile northeast of Lagoon 5, and the nearest park is Krusi Park, a city park with sports facilities and playground, approximately 0.10-mile northeast of Lagoon 5. Although the lagoon is used almost exclusively for private, residential recreation use, public viewing access is available from these surrounding streets: Broadway, La Jolla Drive, Versailles Avenue, and Waterfront Street. Lagoon 5 (also referred to as the East Lagoon) is approximately 3.5 acres and contains the Bayview Weir, through which lagoon water returns to the bay.

Conditions at Lagoon 5 have slightly changed since the 2014 IS/MND. The city completed repairs on the Bayview Weir in 2022: concrete columns of the weir were encapsulated with shotcrete to repair and reinforce the structure. Maintenance dredging was performed in Lagoon 5 in 2014 and again in 2020 under the DMMP. Approximately 1,817 and 217 cubic yards (cy) of material were removed from the eastern corner of Lagoon 5 in 2014 and 2020, respectively. The existing depth of Lagoon 5 is 2 to -2 feet (NAVD88); the proposed maintenance dredging would bring the lagoon to approximately -2 feet.

Land uses surrounding Lagoon 5 have not changed since 2014. There are no new roads/ paths, or new sensitive receptors in the vicinity of the lagoon or other notable changes in land use or zoning. No new special-status species or other biologically sensitive animals or plants have been identified as residing in or using the lagoon system since 2014.

4.0 PROJECT DESCRIPTION

4.1 Project Objective

Consistent with the DMMP objectives, the primary objective of the Lagoon 5 maintenance dredging is to remove accumulated sediments from Lagoon 5 through excavation to restore the lagoon system's water quality, wildlife habitats, aesthetics, and ability to function as a stormwater detention facility through improved circulation and capacity.

4.2 Dredging and Excavation Activities

The proposed Lagoon 5 maintenance dredging consists of excavating, transporting, and disposing of sediment. The majority of the target area in Lagoon 5 was not originally identified as a priority area in the 2014 IS/MND and was not dredged in 2014 or 2020. Detailed plans are provided as Attachment A.

Dredging of 360 cubic yards of sediment from approximately 6,800 square feet of Lagoon 5 would occur in wetted conditions (normal water levels). Dredging will be accomplished using a barge-mounted excavator. Equipment staging, barge installation and removal, and sediment offloading will occur along Waterton Street, southeast of the Waterton Street and Mound Street intersection.

Excavated material will be directly placed into dumpster bins on a barge or barges for dewatering. Barge dewatering (draining off excess water) is required because there is no suitable stockpile location for dewatering and drying of spoils outside of the lagoons. Silt curtain will be used to segregate impacted dredge and dewatering areas to prevent suspended solids from increasing total suspended solid (TSS) concentrations in areas of the lagoon not being dredged.

When sediment dewatering (or drying) on barges is complete, an excavator (barge or land based) would move sediment into dump trucks for transport to a licensed landfill. Alternatively, the dumpsters may be craned off the barges and placed directly onto trucks for transport to a licensed landfill. Bentonite desiccant would be mixed into the sediment, as necessary, to further dry

material in preparation for transport to the landfill; mixing of desiccant will take place while sediment is in containment, either inside of the dumpsters or inside of haul trucks.

4.3 Water Quality Control Measures

Before dredging activities begin, the contractor would determine background concentrations of total suspended solids (TSS). The contractor shall segregate Lagoon 5 by installing impermeable silt curtain(s) before dredging. Silt curtains will be installed around the active excavation area, including against/along the weir structure. The total enclosure of the excavation area with silt curtain(s) will prevent suspended solids from passing through the weir and entering San Francisco Bay and prevent an increase of TSS concentrations in areas of the lagoon not being dredged (See Design Plans, Attachment A).

Silt curtains would also be used around barges, as needed, to contain sediment-laden drainage coming off the barge and prevent an increase of TSS concentrations in other areas of the lagoon. Dredge material would be placed in dumpsters which can be craned off the barges and onto trucks for transport.

Construction Best Management Practices

In addition to the TSS controls described above, standard construction BMPs would be implemented to prevent and reduce potential impacts on water quality during maintenance activities. Storm drain inlets near land-based staging areas will be protected with sediment filter bags. Temporary mats may be utilized, if necessary, to minimize impact of heavy equipment on existing facilities. Drip pans would be placed under excavators and other equipment located on the barge. Equipment parked for more than eight hours on the street for staging would have drip pans placed under them.

At a minimum, the practices/procedures outlined in the following California Stormwater Quality Association (CASQA) BMP worksheets would be followed:

EC-1 Scheduling
EC-2 Preservation of Existing Vegetation
WE-1 Wind Erosion Control
SE-10 Storm Drain Inlet Protection
NS-1 Water Conservation Practices
NS-2 Dewatering Operations
NS-5 Clear Water Diversion
NS-6 Illicit Connection/Discharge
NS-9 Vehicle and Equipment Fueling
WM-1 Material Delivery and Storage
WM-2 Material Use
WM-3 Stockpile Management
WM-4 Spill Prevention and Control
WM-5 Solid Waste Management
WM-9 Sanitary/Septic Waste Management

The deployment of silt curtains, silt curtain removal and CASQA BMPs will be described in a contractor-prepared Water Pollution Control Plan (WPCP).

4.4 Staging

Land-based activities will include equipment staging and preparation for water operations, materials receiving, and staging of dump trucks for loading. All staging, including barge installation/lagoon access, would occur along Waterton Street. An access ramp, as needed, would be erected at the beginning of the project and removed at project completion. Barge(s) would be installed in the Lagoon and removed through this access point. The staging of barges and

equipment would be positioned in such a way as not to impede the flow of water out of the Lagoon via the weir structure. See Attachment A for work phases and staging details.

4.5 Hauling and Disposal

Non-hazardous waste will be disposed of at a certified landfill, pending approval of waste profile and analytical data. The contractor will determine the appropriate upland landfill site for disposal of dredged materials based on the tested soil parameters. Trucks would be loaded, covered, and the material hauled directly to the landfill.

Assuming haul truckloads of approximately 20 cubic yards, 360 cy of soil would require approximately 18 dump truck trips to complete the sediment removal. Dump trucks along Waterton Street, receiving excavated material from the barge-mounted containers via land- or barge-mounted excavator, will travel 1 block south on Court Street to Bayview Drive, then two blocks east to Otis Drive, then six blocks west to Broadway, then four blocks north to Encinial Avenue, which is a designated truck route; there are multiple truck routes available from Encinial Avenue to designated landfills.

4.6 Schedule

The Lagoon 5 maintenance would require approximately 3-4 weeks for project completion. Consistent with the City of Alameda Noise Ordinance (Code Section 4-10.7) as described in the DMMP, construction activities would be limited to Monday through Friday from 7:00 a.m. to 7:00 p.m. Additional special consideration for nearby sensitive receptors included the following limitations:

- The contractor shall keep construction activities under surveillance and control to minimize damage to the environment by noise. The contractor shall use methods and devices to control noise emitted by equipment.
- All equipment shall have sound control devices no less effective than the original equipment and all motorized equipment shall have muffled exhaust.
- Noise generating construction equipment shall be shielded from occupied residences by noise-attenuating buffers.
- The contractor shall not use any machine, mechanism, device or contrivance at the Alameda Lagoons that produces a noise level exceeding 85 dBA, measured 50 feet from the source and when measured at a point of reception within the adjacent housing at the Alameda Lagoons does not exceed 55 dBA during the daytime. The “burst” noise level within the housing area shall not exceed 70 dBA.
- Construction activities and equipment operations within 300 feet of occupied residences shall only be performed from 7:00 a.m. to 7:00 p.m. on Monday through Saturday.
- No operation of equipment requiring backup alarms shall occur outside of 7:00 a.m. to 7:00 p.m.
- No work will occur on legal holidays.

4.7 Comparison of Proposed Lagoon 5 Maintenance Activities with the 2014 Dredged Material Management Program

The Lagoon 5 maintenance dredging proposes substantively similar dredge and sediment dewatering activities and methods to that of the DMMP analyzed in the 2014 IS/MND. The proposed Lagoon 5 work would occur during wetted conditions, and using access points and similar equipment as identified in the DMMP's 2014 IS/MND. Some revisions in dredging methods described in the 2014 IS/MND have been recommended as a result of lessons learned during lagoon dredging efforts that have been completed since 2014. These changes include use of on-water barges.

The location of dredging in Lagoon 5 and the proposed dredge amount are the primary differences between the 2014 DMMP and the proposed Lagoon 5 maintenance dredging. The Lagoon 5 maintenance would dredge the area immediately surrounding the outfall weir, an area adjacent to and partially overlapping the area in Lagoon 5 previously identified by the 2014 IS/MND as a target area. The Lagoon 5 maintenance would remove less material (360 cy total) over a smaller area than the volumes (12,000 cy) and area analyzed in the 2014 IS/MND. Hence, the work duration and vehicle trips (passenger vehicles and dump trucks) generated by the Lagoon 5 maintenance are less than those disclosed in the 2014 IS/MND. Similar to the 2014 DMMP, the Lagoon 5 maintenance dredging would use silt curtains to manage suspended solids; however, the Lagoon 5 maintenance does not propose the use of a polymer to settle solids based on previous dredging experience.

5.0 CEQA DETERMINATION

5.1 CEQA Addendum Requirements

Pursuant to Section 15164 of the CEQA Guidelines, an Addendum to an adopted MND may be prepared by a lead agency or a responsible agency if only minor technical changes or additions are necessary and none of the conditions described in Section 15162 of the CEQA Guidelines calling for the preparation of a subsequent EIR or subsequent MND have occurred. CEQA Guidelines Section 15164 also states that an Addendum need not be circulated for public review but can be included in or attached to the adopted MND for consideration by the hearing body.

The following paragraphs address each of the criteria contained in Section 15162 of the CEQA Guidelines in determining whether a subsequent MND and recirculation is required.

1. Substantial Project Changes: Are there substantial changes to the project which would involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects?
2. Substantial Change in Circumstances: Are there substantial changes to the circumstances under which the project is undertaken which causes new significant environmental effects or a substantial increase in the severity of previously identified significant effects?

3. New Information of Substantial Importance: Is there new information of substantial importance, which was not known or could not have been known with the exercise of reasonable diligence at the time the previous MND was adopted, which shows that:
    - the project will have one or more significant effects not discussed in the previous MND;
    - significant effects previously examined will be substantially more severe than shown in the previous MND;
    - mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
    - mitigation measures or alternatives which are considerably different from those analyzed in the MND would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative?

5.2 Methods

A CEQA Initial Study checklist was used to document that the 2014 IS/MND for the DMMP described the environmental setting, disclosed all significant environmental impacts, and identified mitigation measures to address significant impacts of the Lagoon 5 maintenance activities. The analysis compares the impact conclusions made in the 2014 IS/MND to the anticipated environmental impacts of the proposed Lagoon 5 maintenance dredging. A copy of the Initial Study checklist is included as Attachment B; a summary of the conclusions from the Initial Study is presented here.

5.3 Conclusions

The City has determined that the 2014 IS/MND can be used as the CEQA environmental compliance document for the proposed Lagoon 5 maintenance dredging, and a subsequent MND is not required.

Environmental Setting and Circumstances

The 2014 IS/MND adequately describes the environmental setting for the Lagoon 5 maintenance since no substantial changes have occurred to the environmental setting and the Lagoon 5 maintenance area is wholly covered within the DMMP limits. The urban setting of Alameda's lagoon system has remained relatively static, with no significant changes in land use and transportation infrastructure.

Project Revisions

The Lagoon 5 maintenance dredging proposes substantively similar dredge and sediment dewatering activities and methods to that of the DMMP analyzed in the 2014 IS/MND. The proposed Lagoon 5 work would occur during wetted conditions as discussed in the DMMP's 2014

IS/MND. The Lagoon 5 access points and haul routes have not changed. The methods and equipment proposed for the Lagoon 5 maintenance dredging are consistent with the methods analyzed in the 2014 IS/MND.

Impact Conclusions

The DMMP impact analysis included all potentially significant environmental effects of the proposed Lagoon 5 maintenance dredging. Since the DMMP is a larger project, encompassing all five lagoons and 12,000 cy of sediment removal, and the Lagoon 5 maintenance dredging covers only one lagoon and 360 cy of sediment removal, the magnitude of the impacts described for the DMMP are greater than what is estimated for the Lagoon 5 maintenance.

The analysis compares the impact conclusions made in the 2014 IS/MND to the anticipated environmental effects of the proposed Lagoon 5 maintenance dredging and finds that the impact conclusions for the Lagoon 5 dredging are the same as the conclusions made for the DMMP.

The following resource topics have impacts that are identified in the 2014 IS/MND as "less than significant with mitigation incorporated" and the same conclusion is made for the Lagoon 5 maintenance dredging:

- Air Quality
- Biological Resources
- Cultural Resources
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Transportation

Mitigation measures adopted from the 2014 IS/MND would reduce these potential impacts to a less-than-significant level. The mitigation measures applicable to the Lagoon 5 maintenance activities are included in the Mitigation Monitoring and Reporting Program (MMRP) (Attachment C).

The following resource topics have impacts identified as "less than significant" in the 2014 IS/MND, and the Lagoon 5 maintenance would also have a "less than significant impact" to these resources; no mitigation is required:

- Aesthetics
- Geology and Soils
- Greenhouse Gas Emissions
- Noise
- Recreation

The 2014 IS/MND concluded that the DMMP would have "no impact" on Agriculture and Forest Resources, Land Use/Planning, Mineral Resources, Population and Housing, Public Services, and Utilities and Service Systems. These conclusions are the same for the Lagoon 5 maintenance.

5.4 CEQA Determination

Based on the comparative analysis, the Lagoon 5 maintenance dredging would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects due to substantial project changes or a substantial change in circumstances beyond those evaluated in the 2014 IS/MND. Furthermore, new information does not indicate that the Lagoon 5 maintenance dredging would have one or more significant effects not discussed in the 2014 IS/MND; significant effects previously examined would be substantially more severe than shown in the 2014 IS/MND; mitigation measures or alternatives previously found not to be feasible would in fact be feasible; or mitigation measures or alternatives which are considerably different from those analyzed in the 2014 IS/MND would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measures or alternative. Therefore, an Addendum was prepared to comply with CEQA.

Mitigation measures from the 2014 IS/MND would be adopted and implemented for the Lagoon 5 maintenance dredging. See the MMRP in Attachment C.

As the Lead Agency for the proposed Lagoon 5 maintenance dredging, the City of Alameda is issuing this Addendum in accordance with Section 15164 of the CEQA Guidelines.

Signature: _____ Date: _____

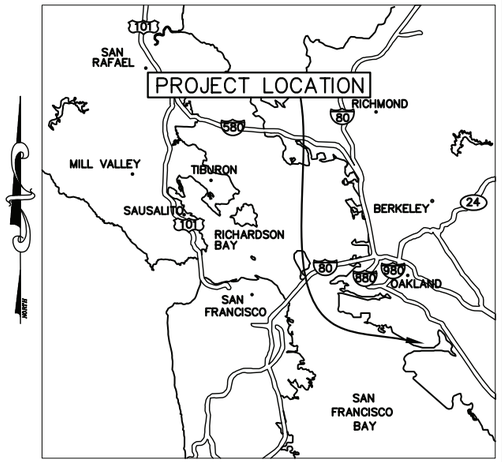
Name: _____

Title: _____

City of Alameda

ATTACHMENT A. LAGOON 5 DREDGING PROJECT PLANS

CITY OF ALAMEDA
ALAMEDA COUNTY, CALIFORNIA
LAGOON 5
DREDGING PROJECT



VICINITY MAP

SHEET INDEX

1	T-1: TITLE SHEET
2	L-1: LAYOUT PLAN
3-5	X-1 TO X-3: SECTIONS
6	TEMP TRAFFIC CONTROL PLAN
7	WATER POLLUTION CONTROL PLAN

GENERAL NOTES:

1) THE CONTRACTOR SHALL INSPECT THE SITE PRIOR TO SUBMITTING A BID IN ORDER TO OBSERVE AND DETERMINE THE EXISTING JOB SITE CONDITIONS AND SITE ACCESS.

2) EXISTING UTILITIES ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICES ALERT (USA) AT (800) 227-2600 AT LEAST TWO WORKING DAYS BEFORE EXCAVATING. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UTILITIES IN ACCORDANCE WITH THE SPECIFICATIONS.

3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL STORM WATER BEST MANAGEMENT PRACTICE, TRAFFIC CONTROL, MOBILIZATION, DEMOBILIZATION, CONSTRUCTION STAKING, AND LAYOUT AND ANY OTHER ITEMS WHICH MAY BE REQUIRED TO COMPLETE THE WORK IN FULL ARE TO BE INCLUDED IN THE WORK BEING BID.

4) ANY TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

5) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THE SITE OR THE SURROUNDING AREA AS A RESULT OF THE CONTRACTOR'S WORK OPERATIONS. EXISTING FACILITIES THAT ARE DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

6) ALL EXCAVATED MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

7) ALL ELEVATIONS SHOWN ON PLAN ARE EXPRESSED IN NAVD88.

LOCATION MAP
SCALE 1"=100'

LEGEND

1+00	CONTROL LINE
1.0	FG CONTOUR
	LIMITS OF DREDGING
3.5	OG CONTOUR
	SILT CURTAIN

ABBREVIATIONS

FOR ABBREVIATIONS NOT SHOWN, SEE STATE STD PLANS NO. A3A, A3B & A3C

CY	CUBIC YARD
EL	ELEVATION
EX	EXISTING
OG	ORIGINAL GRADE

65% PLANS
NOT FOR CONSTRUCTION

VERIFY SCALES
0 1 2 3
3 INCHES ON ORIGINAL PLAN
IF NOT THREE INCHES ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HARRISON ENGINEERING INC.
1987 BONIFACIO STREET • CONCORD, CA 94520
PHONE (925) 691-0450

BENCH MARK	REFERENCE

NO.	REVISED	BY	APP.

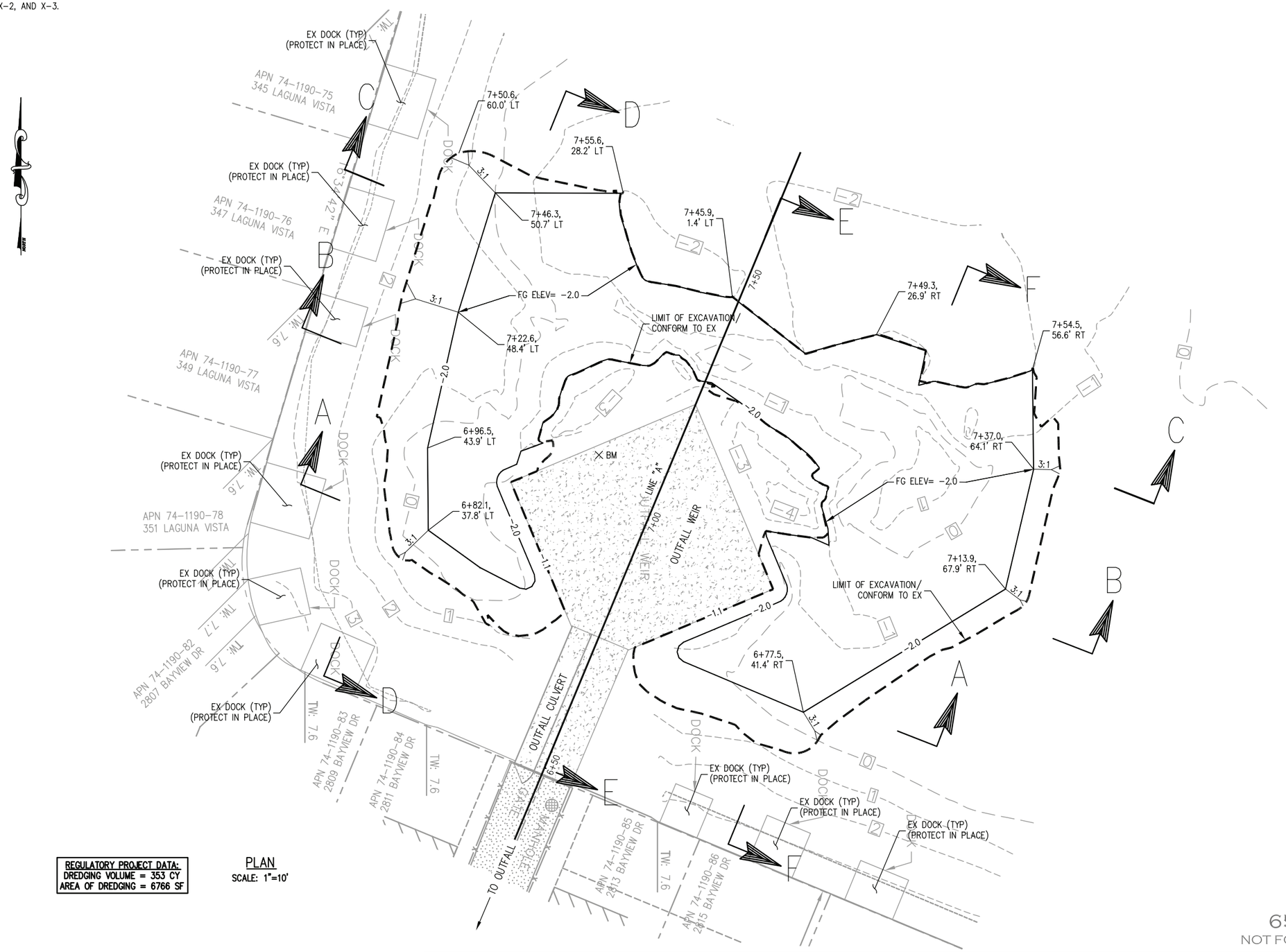
DESIGNED RTH
DRAWN JNT
CHECKED RTH
DATE 04/10/23
SCALE AS NOTED

CITY OF ALAMEDA
CALIFORNIA
ENGINEERING DEPARTMENT

LAGOON 5 DREDGING PROJECT
TITLE SHEET
T-1

APPROVED BY
CITY ENGINEER
DATE
SHEET 1 OF 7
DWG. CASE

NOTES:
1. FOR SECTIONS A–F SEE SHT X–1, X–2, AND X–3.



REGULATORY PROJECT DATA:
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AREA OF DREDGING = 6766 SF

PLAN
SCALE: 1"=10'

65% PLANS
NOT FOR CONSTRUCTION

VERIFY SCALES
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3 INCHES ON ORIGINAL PLAN
IF NOT THREE INCHES ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HEI HARRISON ENGINEERING INC.
1987 BONIFACIO STREET • CONCORD, CA 94520
PHONE (925) 691–0450

BENCH MARK	REFERENCE
CUT X AT NW SIDE OF WEIR WALKWAY, 7+07.8, 13.3' LT ELEVATION=11.45', ALL ELEVATIONS IN NAVD88	

NO.	REVISED	BY	APP.

DESIGNED RTH
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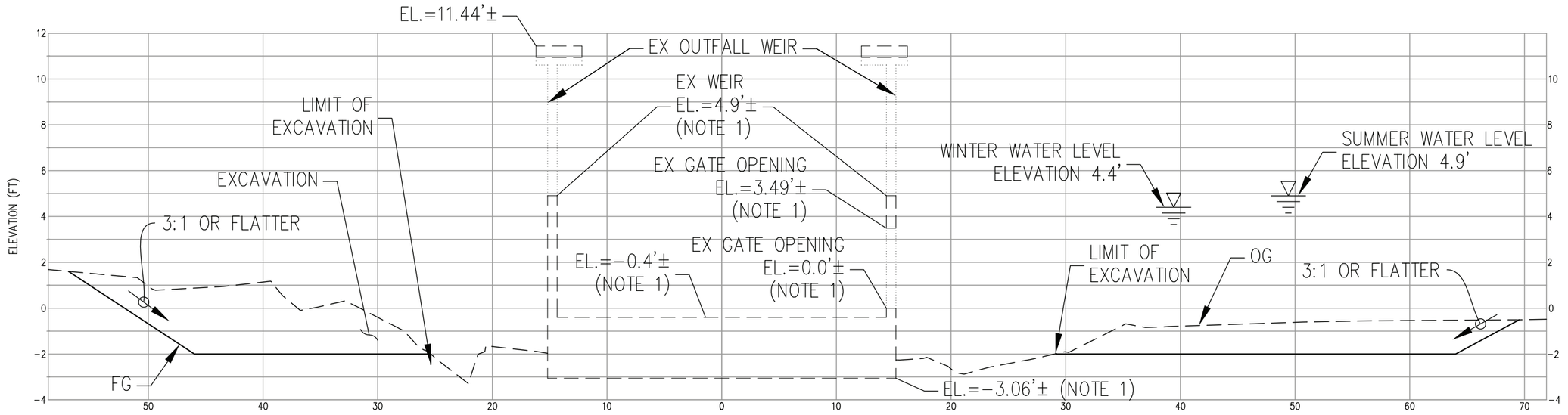
DATE 04/10/23
SCALE AS NOTED

CITY OF ALAMEDA
CALIFORNIA
ENGINEERING DEPARTMENT

LAGOON 5 DREDGING PROJECT LAYOUT PLAN L-1

APPROVED BY
CITY ENGINEER
DATE
SHEET 2 OF 7
DWG. CASE

NOTES:
1. ELEVATIONS BASED ON RECORD DATA.



SECTION B–B (STA 7+09)
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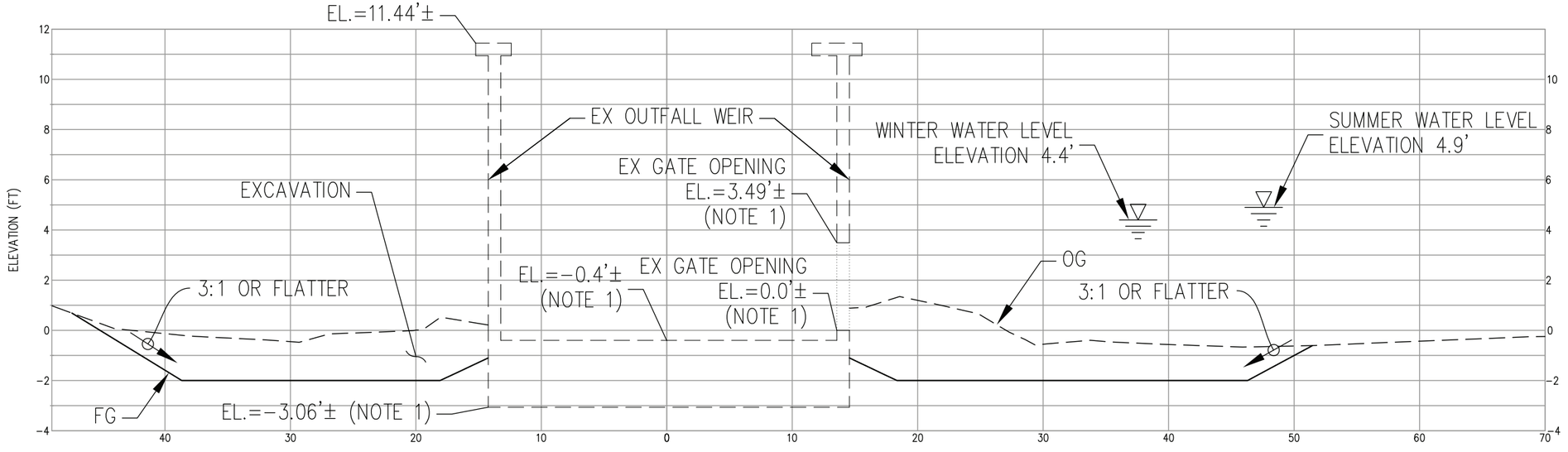
VERT: 1"=2.5'



SECTION A–A (STA 6+84)
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VERT: 1"=2.5'

65% PLANS
NOT FOR CONSTRUCTION

VERIFY SCALES
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IF NOT THREE INCHES ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HARRISON ENGINEERING INC.
1987 BONIFACIO STREET • CONCORD, CA 94520
PHONE (925) 691–0450

BENCH MARK	REFERENCE

NO.	REVISED	BY	APP.

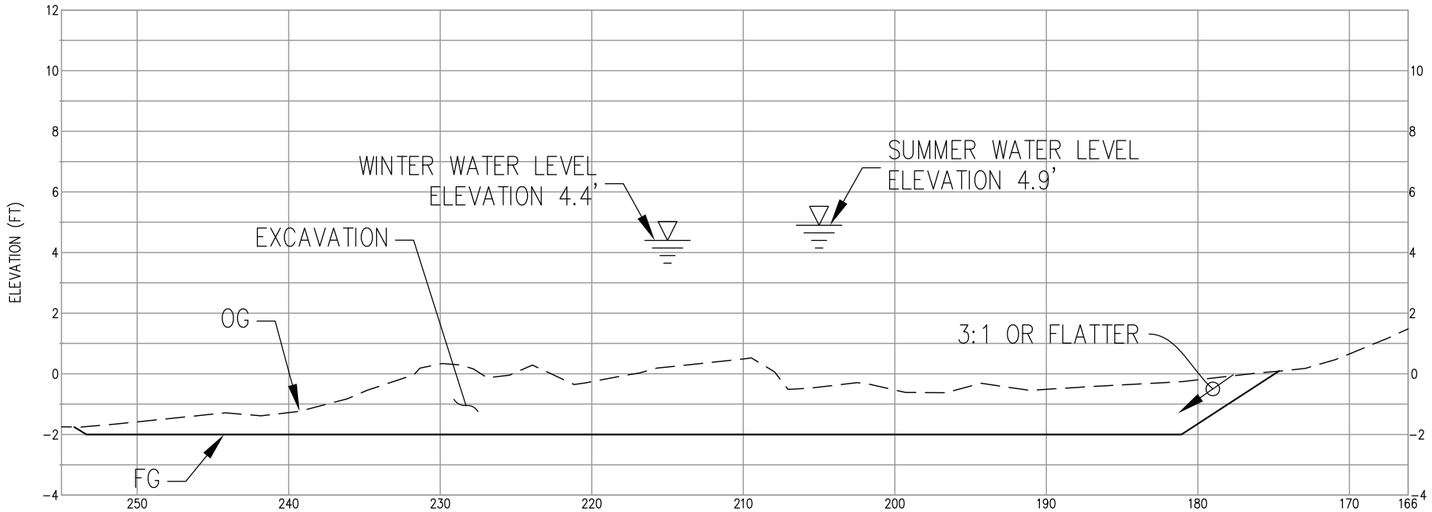
DESIGNED RTH
DRAWN JNT
CHECKED RTH
DATE 04/10/23
SCALE AS NOTED

CITY OF ALAMEDA
CALIFORNIA
ENGINEERING DEPARTMENT

LAGOON 5 DREDGING PROJECT
SECTIONS
X-1

APPROVED BY
CITY ENGINEER
DATE
SHEET 3 OF 7
DWG. CASE

NOTES:
1.



SECTION D–D
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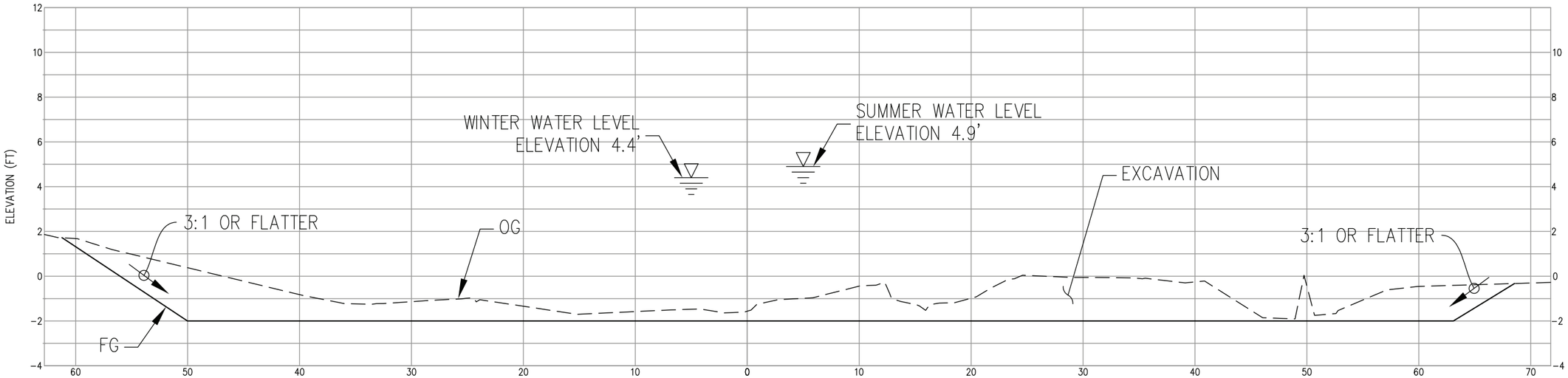

SECTION C–C (STA 7+39)
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VERT: 1"=2.5'

65% PLANS
NOT FOR CONSTRUCTION

VERIFY SCALES
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3 INCHES ON ORIGINAL PLAN
IF NOT THREE INCHES ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HARRISON ENGINEERING INC.
1987 BONIFACIO STREET • CONCORD, CA 94520
PHONE (925) 691–0450

BENCH MARK	REFERENCE

NO.	REVISED	BY	APP.

DESIGNED RTH
DRAWN JNT
CHECKED RTH
DATE 04/10/23
SCALE AS NOTED

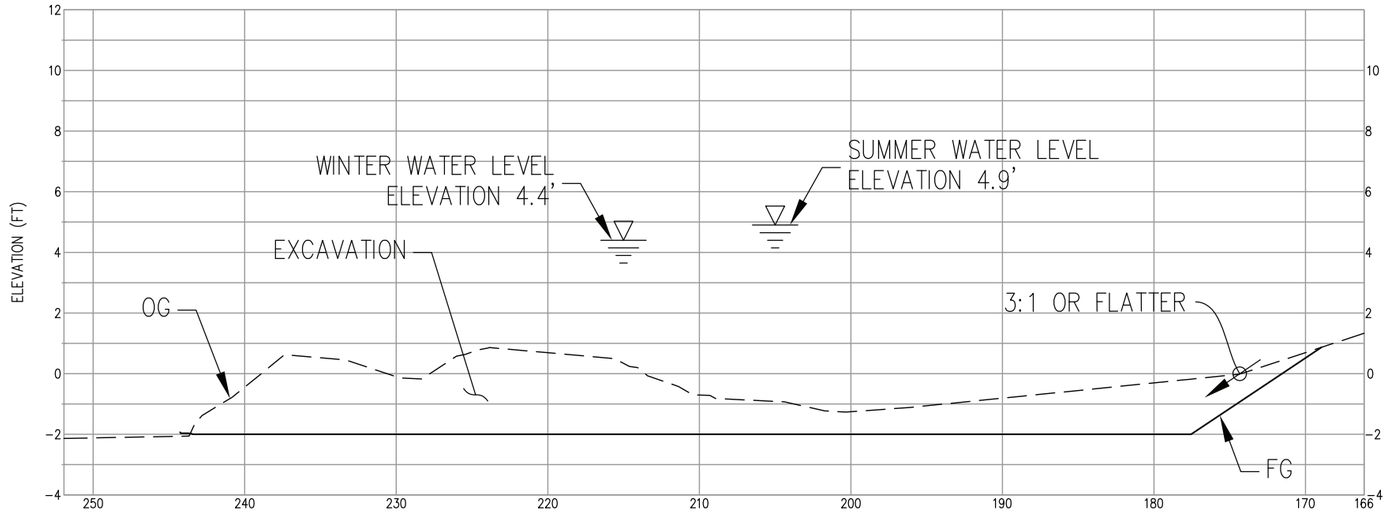
CITY OF ALAMEDA
CALIFORNIA
ENGINEERING DEPARTMENT

LAGOON 5 DREDGING PROJECT
SECTIONS
X-2

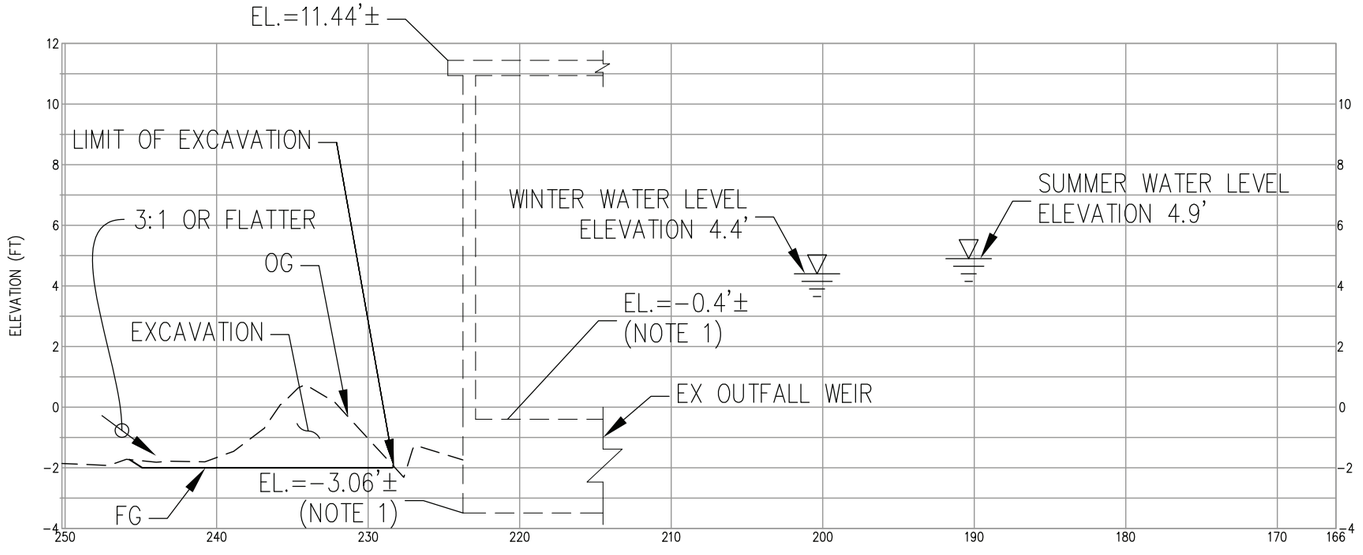
APPROVED BY
CITY ENGINEER
DATE

SHEET 4 OF 7
DWG. CASE

NOTES:
1. ELEVATIONS BASED ON RECORD DATA.



SECTION F–F
HORIZ: 1"=5'
VERT: 1"=2.5'



SECTION E–E
HORIZ: 1"=5'
VERT: 1"=2.5'

65% PLANS
NOT FOR CONSTRUCTION

VERIFY SCALES
0 1 2 3
3 INCHES ON ORIGINAL PLAN
IF NOT THREE INCHES ON THIS SHEET, ADJUST SCALES ACCORDINGLY

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CITY OF ALAMEDA
CALIFORNIA
ENGINEERING DEPARTMENT

LAGOON 5 DREDGING
PROJECT
SECTIONS
X-3

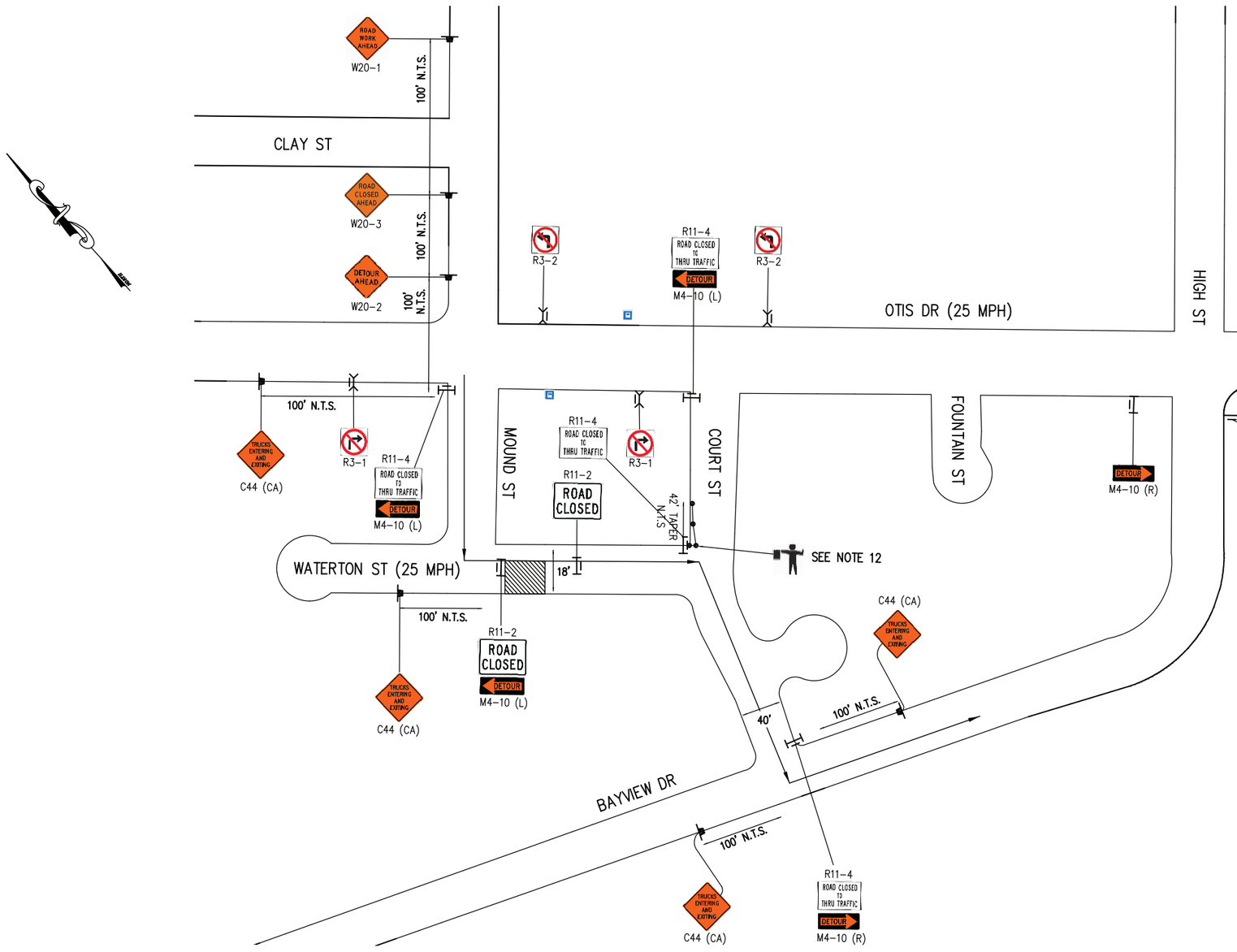
APPROVED BY
CITY ENGINEER
DATE
SHEET 5 OF 7
DWG. CASE

NOTES:

1. TRAFFIC CONTROL SHALL CONFORM WITH THE MOST CURRENT CAMUTCD PART 6 AND/OR CALTRANS STANDARDS.
2. ONE LANE TRAFFIC IN EACH DIRECTION AND ALL HIGH VOLUME TURNING LANES SHALL BE MAINTAINED AT ALL TIMES ON ALL STREETS AT A MINIMUM LANE WIDTH OF 10 FEET.
3. CONTRACTOR SHALL NOTIFY LOCAL AUTHORITIES ONCE SIGNS ARE POSTED.
4. ALL ADVANCED WARNING SIGNS SHALL BE EQUIPPED WITH 2 (18" ORANGE FLAGS).
5. CERTIFIED TRAFFIC CONTROL WORKERS SHALL HAVE TYPE II VESTS, WORK SHOES, AND HARD HATS.
6. TEMPORARY NO PARKING SIGNS SHALL BE PLACED A MINIMUM OF 72 HOURS PRIOR TO WORK.
7. DRIVEWAYS SHALL BE MONITORED AND MAINTAINED AT ALL TIMES DURING WORK HOURS.
8. DISTANCE BETWEEN SIGN AND WORK AREA WILL BE DETERMINED ON SPEED LIMIT.
9. ROADWAY SHALL NOT BE OPENED UNTIL SAFE FOR PUBLIC USE. ALL OPEN TRENCHES MUST BE BACKFILLED PRIOR TO PUBLIC USAGE.
10. ALL DEVICES SHALL BE REMOVED WHEN NO LONGER REQUIRED.
11. CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FROM CALTRANS FOR THE INSTALLATION OF TRAFFIC CONTROL SIGNAGE ON OTIS DRIVE.
12. FLAGGER SHALL HOLD VEHICULAR TRAFFIC TO ALLOW TRUCKS ENTERING AND EXITING.

LEGEND

- CHANNELIZING DEVICE
- SIGN
- WORK ZONE
- TYPE 1 BARRICADE W/SIGN
- TYPE 3 BARRICADE W/SIGN
- CERTIFIED FLAGGER
- TRUCK INGRESS AND EGRESS



65% PLANS
NOT FOR CONSTRUCTION

VERIFY SCALES
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3 INCHES ON ORIGINAL PLAN
IF NOT THREE INCHES ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HEI HARRISON ENGINEERING INC.
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BENCH MARK	REFERENCE

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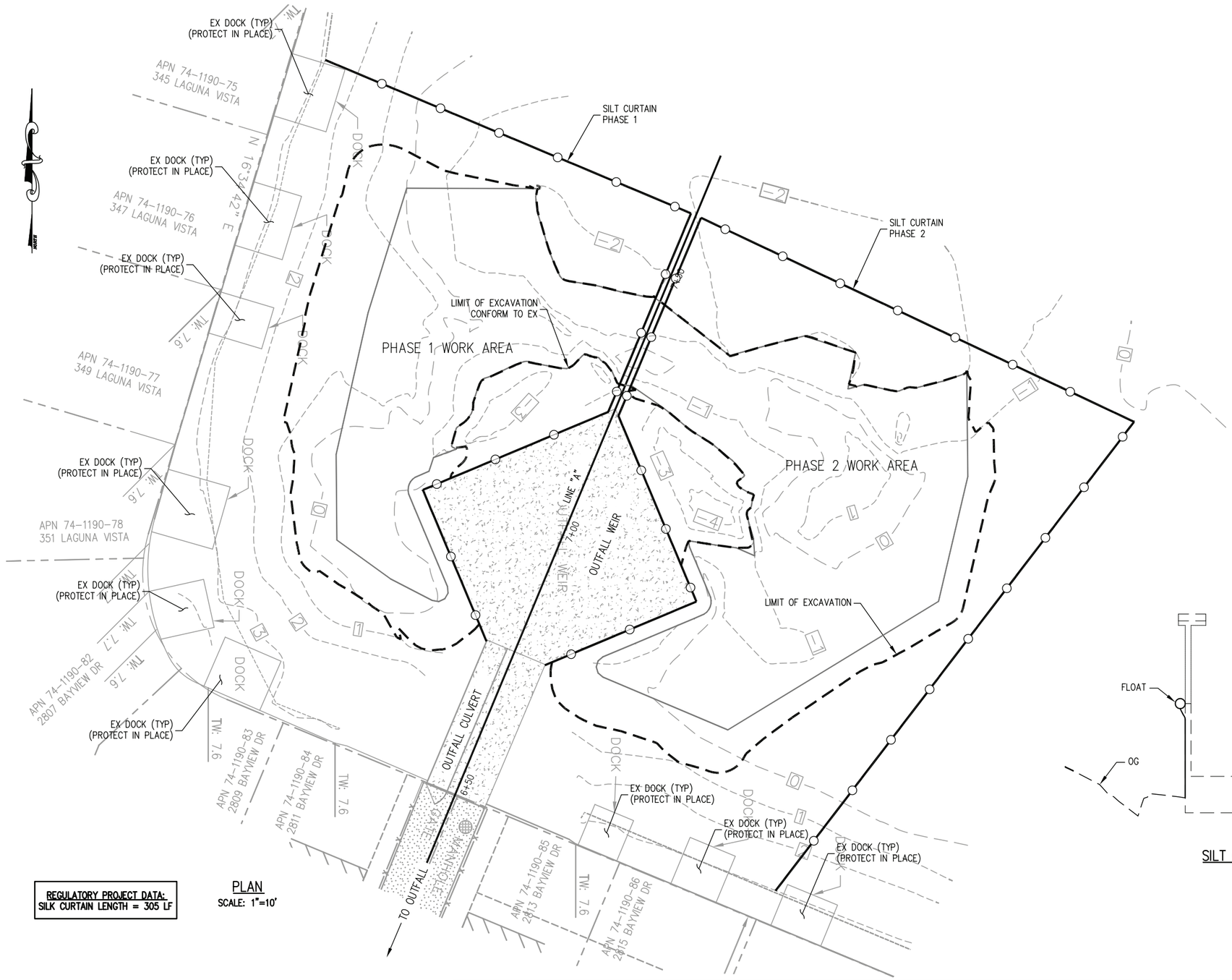
DESIGNED RTH
DRAWN JNT
CHECKED RTH
DATE 04/10/23
SCALE AS NOTED

CITY OF ALAMEDA
CALIFORNIA
ENGINEERING DEPARTMENT

LAGOON 5 DREDGING PROJECT TEMP TRAFFIC CONTROL PLAN

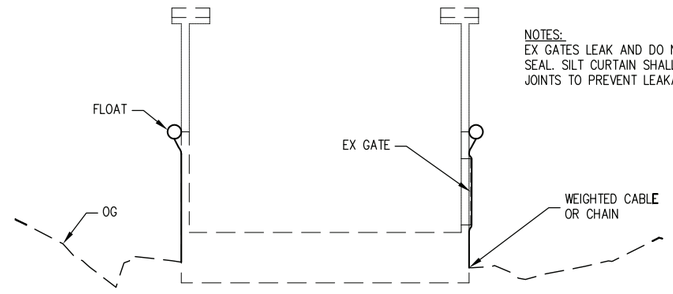
APPROVED BY
CITY ENGINEER
DATE

SHEET 6 OF 7
DWG. CASE



PLAN
SCALE: 1"=10'

REGULATORY PROJECT DATA:
SILK CURTAIN LENGTH = 305 LF



NOTES:
EX GATES LEAK AND DO NOT SEAL. SILT CURTAIN SHALL COVER JOINTS TO PREVENT LEAKAGE.

SILT CURTAIN AT WEIR DTL
NTS

65% PLANS
NOT FOR CONSTRUCTION

VERIFY SCALES
0 1 2 3
3 INCHES ON ORIGINAL PLAN
IF NOT THREE INCHES ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HARRISON ENGINEERING INC.
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PHONE (925) 691-0450

BENCH MARK	REFERENCE

NO.	REVISED	BY	APP.

DESIGNED RTH
DRAWN JNT
CHECKED RTH
DATE 04/10/23
SCALE AS NOTED

CITY OF ALAMEDA
CALIFORNIA
ENGINEERING DEPARTMENT

LAGOON 5 DREDGING PROJECT
WATER POLLUTION CONTROL PLAN

APPROVED BY
CITY ENGINEER
DATE
SHEET 7 OF 7
DWG. NO.
CASE NO.

ATTACHMENT B. CEQA INITIAL STUDY CHECKLIST

A CEQA Initial Study checklist was used to compare the 2014 IS/MND impact conclusions with the impact analysis findings for the proposed Lagoon 5 maintenance dredging. The checklist includes the eleven resource topics that 2014 IS/MND determined the DMMP could have a "Less than Significant Impact" or a "Less than Significant Impact with Mitigation Incorporated". For each environmental resource topic, a checklist table shows the CEQA impact conclusion from the 2014 IS/MND and the conclusion for the Lagoon 5 maintenance dredging. Resource areas described as experiencing 'no impact' in the 2014 IS/MND would also experience no impact from the Lagoon 5 maintenance dredging and are not included in the Initial Study Checklist that follows. The "no impact" topics are Agriculture and Forest Resources, Land Use/Planning, Mineral Resources, Population and Housing, Public Services, and Utilities and Service Systems.

The CEQA Environmental Checklist is used to demonstrate that environmental impacts associated with the Lagoon 5 maintenance dredging are consistent with those disclosed in the 2014 IS/MND for the DMMP, and to show that the City has completed a due diligence review to come to this conclusion. The CEQA Environmental Checklist identifies physical, biological, social, and economic factors that might be affected by the proposed projects. The questions in each impact summary table are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

The CEQA determinations presented in the checklist depend on the level of potential environmental impact that would result from project activities. The level of significance determinations is defined as follows:

- No Impact: Indicates no physical environmental change from existing conditions.
- Less Than Significant Impact: Indicates the potential for an environmental impact that is not significant.
- Less Than Significant Impact with Mitigation Incorporated: Indicates the potential for a significant environmental impact that would be mitigated with the implementation of mitigation measures to a level of less than significant.
- Potentially Significant Impact: Indicates the potential for a significant and unavoidable environmental impact.

AESTHETICS

Question	2014 DMMP Determination	2024 Lagoon 5 Determination
Would the Project: a) Have a substantial adverse effect on a scenic vista?	Less Than Significant Impact	Less Than Significant Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No Impact	No Impact
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	Less Than Significant Impact	Less Than Significant Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No Impact	No Impact

Summary of Aesthetics Impacts from 2014 IS/MND

The 2014 MND analysis describes temporary visual impacts from the presence of construction equipment associated with the dredging, including equipment that rises near or above surrounding vegetation and the horizon line. Construction equipment would be visible to residents in the immediate area of dredging. The 2014 proposed dredging activity would be limited to daytime working hours only with no proposed installation of temporary lighting equipment. The project is not located within a state scenic highway. There would be no long-term impacts to aesthetics.

Comparison of Environmental Impacts

The Lagoon 5 maintenance dredging does not modify the project description such that any of the abovementioned conclusions have changed. The conclusions of the 2014 IS/MND apply; the Lagoon 5 maintenance would have a Less Than Significant Impact on Aesthetics. No mitigation is required.

AIR QUALITY

Question	2014 DMMP Determination	2024 Lagoon 5 Determination
Would the Project: a) Conflict with or obstruct implementation of the applicable air quality plan?	Less Than Significant Impact	Less Than Significant Impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Less Than Significant Impact	Less Than Significant Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under and applicable federal or state ambient air quality standard?	No Impact	No Impact
d) Expose sensitive receptors to substantial pollutant concentrations?	Less Than Significant Impact	Less Than Significant Impact
e) Create objectionable odors affecting a substantial number of people?	Less Than Significant Impact	Less Than Significant Impact

Summary of Air Quality Impacts from 2014 IS/MND

The 2014 IS/MND found that DMMP would include the use of heavy equipment, haul trucks, and truck and commuter vehicles consistent with short-term construction projects. The DMMP would have no permanent infrastructure, new stationary sources of air emission, or other long-term ongoing source of air emissions, including changes in land use or modification of the roadway network, local transit lines, or local bicycle and pedestrian networks.

The Roadway Construction Emissions Model (Roadmod, V 7.1.5) was used to estimate dredging-related air emissions and found that dredging emissions were below the significance thresholds specified by the Bay Area Air Quality Management District (BAAQMD)[1], and the project would not expose sensitive receptors to substantial pollutant concentrations. The analysis assumed 800 truckloads of dredge materials during a 4-month construction period and as many as 25 vehicle commutes each day for workers. The 2014 IS/MND also found that while Alameda County is designated as in 'non-attainment status' for Ozone, PM2.5 and PM10, the DMMP would not violate applicable local or state policies or plans because it would not result in a growth in population, employment, or vehicle-miles traveled in excess of state and local forecasts. When lifted above the water surface for removal, dredged sediment is a source of potential odor. The 2014 IS/MND concluded that short-term exposure to these potential odor sources would be less

[1] BAAQMD. 2010. Thresholds for Use in Determining the Significance of Projects Environmental Effects under the California Environmental Quality Act. Resolution 2010-06. Available: https://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/Board%20Resolution%20Adopting%20CEQA%20Thresholds_6_2_10.ashx
BAAQMD. 2012. California Environmental Quality Act Air Quality Guidelines. Updated May 2012. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/baaqmd-ceqa-guidelines_final_may-2012.pdf

than significant. Therefore, air emissions and impacts during DMMP activities would be less than significant.

Comparison of Environmental Impacts

The Guidelines for Air Quality, as established by the BAAQMD were updated in 2017[2]. The 2017 thresholds are identical to those that were used in the 2014 IS/MND analysis. Therefore, there are no new significance thresholds that would apply to the analysis of the Lagoon 5 maintenance dredging.

Similar to the 2014 DMMP, the Lagoon 5 maintenance does not include an ongoing operational component and no ongoing emissions would occur.

The proposed Lagoon 5 dredging would require fewer truck trips and a shorter work period (3-4 weeks) than evaluated in the 2014 IS/MND, which estimated 3-4 weeks per lagoon for five lagoons over two years. Therefore, construction-related air emissions from the Lagoon 5 maintenance would be less than the emissions disclosed in the 2014 IS/MND, and impacts would be less than the BAAQMD thresholds. The Lagoon 5 maintenance dredging would use similar equipment and similar methods for sediment drying, allowing draining of excess water from sediment held in barges before transport offsite; no newly identified odors or odor intensity is anticipated.

The impact conclusions of the 2014 IS/MND apply; the Lagoon 5 maintenance would have a Less Than Significant Impact on Air Quality.

Air Quality Mitigation Measures

The 2014 MND identified one mitigation measure (Mitigation Measure AIR-1) that would reduce air quality impacts. This mitigation measure would be applied to the Lagoon 5 maintenance dredging. Refer to the Mitigation Monitoring and Reporting Program (MMRP) for the full text of mitigation measures.

Mitigation Measure AIR-1: BAAQMD Construction Mitigation Measures

[2] Bay Area Air Quality Management District (BAAQMD). 2017. Spare the Air, Cool the Climate: A Blueprint for Clean Air and Climate Protection in The Bay Area (Final 2017 Clean Air Plan). Accessed March 2023 from https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en

BIOLOGICAL RESOURCES

Question	2014 DMMP Determination	2024 Lagoon 5 Determination
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 Wildlife or U.S. Fish and Wildlife Service?	No Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	No Impact	No Impact
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?	Less Than Significant Impact	Less Than Significant Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact	No Impact
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?	No Impact	No Impact

Summary of Biological Resources from 2014 IS/MND

The 2014 IS/MND determined that the DMMP would have no impact on special-status species. The lagoons, which are man-made diked impoundments filled with pumped-in bay water, are a highly modified system that does not support habitat suitable for special-status species (both plant and animal). The dredging operation would not remove riparian habitat or other sensitive natural community; no vegetation removal, trimming or other significant direct impacts to shoreline habitats would occur.

Although migratory bird species are unlikely to be adversely impacted by the project, the 2014 IS/MND recognized that raptors and other birds may be using the general area and adopted mitigation (**Mitigation Measure BIO-1)** to reduce potential impacts to nesting birds.

The 2014 MND found that work in the lagoons has the potential to discharge sediment through the Bayview Weir to the San Francisco Bay, which contains critical habitat for threatened and endangered animals and plants. To prevent discharge of sediments from the lagoons and impacts

to downstream special-status species in the San Francisco Bay, the 2014 MND included sediment control measures (**Mitigation Measures HW-1, HW-2, and HW-3)**.

Comparison of Environmental Impacts

The biological conditions of the Lagoon system have not changed since the 2014 IS/MND was adopted. Ramp installation for staging of barges could have a temporary and transient impact on shoreline grasses (primarily non-native ornament or weed plants) at the point of contact. The conclusions of the 2014 IS/MND apply, and the Lagoon 5 maintenance dredging would have a Less Than Significant Impact with Mitigation Incorporated on Biological Resources.

Biological Resources Mitigation Measures

The following mitigation measures were adopted in the 2014 MND and would apply to the Lagoon 5 maintenance dredging. The full text of the migration measures is provided in the MMRP.

Mitigation Measure BIO-1: Protection for Nesting Birds

Mitigation Measure HW-1: Best Management Practices (BMP) and Erosion Control Measures

Mitigation Measure HW-2: Management of Dewatering Discharges

Mitigation Measure HW-3: Management of Siltation from Dredging Activities

CULTURAL and PALEONTOLOGICAL RESOURCES

Question	2014 DMMP Determination	2024 Lagoon 5 Determination
Would the Project: a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated
c) Disturb any human remains, including those interred outside of formal cemeteries?	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated
d) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No Impact	No Impact

Summary of Cultural Resources Impacts from 2014 IS/MND

The Lagoons do not contain known historic or cultural resources and are unlikely to include unknown archaeological resources, undiscovered human remains, or other places associated with traditional cultural practices of beliefs of a living community. No historic buildings or structures would be directly affected by the project. The 2014 IS/MMD included inadvertent discovery protocols (**Mitigation Measure CUL-1 and CUL-2**), which establish procedures for the inadvertent discovery of cultural resources and human remains. No unique paleontological or geologic resources are known or expected to be directly or indirectly affected by the dredging and dewatering under the proposed project so there would be no impact on paleontological resources.

Comparison of Environmental Impacts.

There is no change in the overall footprint, as the 2014 review of Cultural Resources analyzed impacts to the lagoon system as a whole, including Lagoon 5. The Lagoon 5 maintenance dredging would incorporate recommended Mitigation Measures to apply inadvertent discovery protocols. The conclusions of the 2014 IS/MND apply; the Lagoon 5 maintenance would have a Less Than Significant Impact with Mitigation Incorporated on Cultural Resources.

Cultural Resources Mitigation Measures

The following mitigation measures were adopted in the 2014 MND and would apply to the Lagoon 5 maintenance dredging. The full text of the migration measures is provided in the MMRP.

Mitigation Measure CUL-1: Cultural Resources Record Search

Mitigation Measure CUL-2: Accidental Discovery of Human Remains

GEOLOGY AND SOILS

Question	2014 DMMP Determination	2024 Lagoon 5 Determination
Would the Project: a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Less Than Significant Impact	Less Than Significant Impact
ii) Strong seismic ground shaking?	Less Than Significant Impact	Less Than Significant Impact
iii) Seismic-related ground failure, including liquefaction?	Less Than Significant Impact	Less Than Significant Impact
iv) Landslides?	No Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact
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?	No Impact	No Impact
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?	No Impact	No Impact
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 waste water?	No Impact	No Impact

Summary of Geology and Soils Impacts from 2014 IS/MND

The lagoons are in an area subject to seismic hazards, including liquefaction, lateral spreading, and subsidence. The 2014 IS/MND concluded that the hazards were not exacerbated by the DMMP, and the DMMP would not increase exposure to potential adverse effects associated with known hazards. The DMMP proposed land-based construction staging, which has the potential to cause minor erosion and loss of soil. With erosion control measures (**Mitigation Measure HW-1**), this potential impact was reduced to a less-than-significant level.

Comparison of Environmental Impacts

The Lagoon 5 maintenance dredging does not modify the project description such that any of the abovementioned conclusions have changed. The Lagoon 5 work proposes primarily on-water staging and materials storage, so the potential for soil erosion is reduced to a less-than-significant level. Therefore, the Lagoon 5 maintenance would have a less-than-significant impact on Geology and Soils.

Geology and Soils Mitigation Measures

The following mitigation measure was adopted in the 2014 MND and would apply to the Lagoon 5 maintenance dredging. The full text of the migration measure is provided in the MMRP.

Mitigation Measure HW-1: BMPs and Erosion Control Measures

GREENHOUSE GAS EMISSIONS

Question	2014 DMMP Determination	2024 Lagoon 5 Determination
Would the Project: a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less Than Significant Impact	Less Than Significant Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less Than Significant Impact	Less Than Significant Impact

Summary of Greenhouse Gas Emissions Impacts from 2014 MND

The 2014 IS/MND evaluates Greenhouse Gas (GHG) emissions from the use of fossil fuels used in heavy equipment, trucks, and personal operating vehicles. In 2014, the BAAQMD had not yet adopted a threshold of significance for construction-related GHG emissions. As an alternative to a construction threshold, the 2014 MND reviewed estimated emissions from dredging as compared to one year of operations emissions, for which the BAAQMD had an established threshold. The projected construction emissions were determined to be less than the allowable threshold for one year of project emissions and the impact on emissions was determined to be less than significant.

The 2014 MND analysis found that short-term emissions would not conflict with any GHG goals set by the BAAQMD and would be consistent with San Francisco's Strategies to Address Greenhouse Gas Emissions.

Comparison of Environmental Impacts

The Lagoon 5 maintenance dredging would require fewer truck trips and equipment use than analyzed in the 2014 IS/MND. Therefore, the Lagoon 5 work would result in less GHG emissions than disclosed in the 2014 IS/MND. The current BAAQMD Thresholds Justification Report (2022), like the guidance available in 2014, does not recommend a construction-related GHG threshold. Similarly, the City of Alameda's Climate Action and Resiliency Plan[3] (CARP) and the Plan Bay Area 2050[4] describe green building goals, electrification priorities for new construction, construction debris recycling, transportation strategies and other GHG reduction strategies, but do not specify new goals or regulations regarding construction methods or equipment. The conclusions of the 2014 IS/MND apply; the Lagoon 5 maintenance would have a Less Than Significant Impact on GHG. No mitigation is required.

[3] City of Alameda. 2019. Climate Action and Resiliency Plan (CARP). Accessed April 2023 from https://www.alamedaca.gov/files/sharedassets/public/public-works/climate-action-page/new-folder/final-carp-9-2019/alameda_carp_final_091119noappendices.pdf

[4] Association of Bay Area Governments. 2021. Plan Bay Area. Accessed April 2023 from https://www.planbayarea.org/digital-library/plan-bay-area-2050

HAZARDS AND HAZARDOUS MATERIALS

Question	2014 DMMP Determination	2024 Lagoon 5 Determination
Would the Project: a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated
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?	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard noise for people residing or working in the project area?	No Impact	No Impact
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	No Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No Impact	No Impact
h) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No Impact	No Impact

Summary of Hazards and Hazardous Materials Impacts from 2014 MND

Sediment testing in 2010, 2011, and 2013 showed that dredged sediments contained a range of elevated concentrations of metals, polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), and low-level radionuclides. To reduce the project's potential to 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 to a less than significant level, mitigation was adopted in the 2014 IS/MND. Mitigation measure HAZ-1 calls for the development of a Site Health and Safety Plan outlining requirements for dredged sediment handling, transportation and disposal, and HAZ-2 requires that prior to handling and disposal, dredged sediments are sampled. With the implementation of identified mitigation measures and adherence to all state and federal regulations regarding hazardous materials handling, transport and disposal, the potential adverse impacts from material dredging and transport would be less than significant.

Comparison of Environmental Impacts

The Lagoon 5 maintenance dredging proposes substantively similar dredge and sediment dewatering activities and methods to that of the 2014 DMMP. There are no environmental changes that would indicate a significant increase in sediment toxicity, nor does the project propose using new potentially hazardous chemicals as a component of the maintenance activity. The City completed materials sampling and testing for Lagoon 5 in October 2023[5]. Based on the analytical results of the October 2023 testing, the sediment in Lagoon 5 appears acceptable for disposal as a non-hazardous waste at a Class II facility. The impact conclusions of the 2014 IS/MND apply; with Mitigation Incorporated, the Lagoon 5 maintenance dredging would have a Less Than Significant Impact on Hazards and Hazardous Materials.

Hazards and Hazardous Materials Mitigation Measures

The following mitigation measures were adopted in the 2014 MND and would apply to the Lagoon 5 maintenance dredging. The full text of the migration measures is provided in the MMRP.

Mitigation Measure HAZ-1: Site Health and Safety Plan Mitigation Measures

Mitigation Measure HAZ-2: Management of Soil

Mitigation Measure HW-1: BMPs and Erosion Control Measures

Mitigation Measure HW-2: Management of Dewatering Discharges

[5] Cornerstone Earth Group. 2023. Alameda Lagoon Dredging Project Sediment Quality Evaluation, Lagoon 5 and Outfall Channel, Alameda, California. November 6.

HYDROLOGY AND WATER QUALITY

Question	2014 DMMP Determination	2024 Lagoon 5 Determination
Would the Project: a) Violate any water quality standards or waste discharge requirements?	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion of siltation on- or off-site?	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	No Impact	No Impact
e) 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?	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated
f) Otherwise substantially degrade water quality?	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map?	No Impact	No Impact
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	No Impact	No Impact
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	No Impact	No Impact
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	No Impact	No Impact

Summary of Hydrology and Water Quality Impacts from 2014 IS/MND

To protect the water quality of the lagoon system from potential construction-related impacts, including equipment leaks, spills, and bank erosion, the 2014 IS/MND calls for the incorporation of BMPs, erosion control measures, and measures to limit the transport of suspended solids. The BMPs and erosion control measures are incorporated into the 2014 IS/MND through **Mitigation Measure HW-1** and **Mitigation Measure HW-3,** which outline management controls for total suspended solids (TSS) such as silt curtains and use of polymer system. **Mitigation Measure**

HW-2 describes a project-specific dewatering management plan that requires specification of methods for collecting, transporting, treating, and discharging all water produced by construction site dewatering, in accordance with the Construction General Permit. Project impacts were determined to be less than significant with the incorporation of these mitigation measures.

Comparison of Environmental Impacts

The Lagoon 5 maintenance dredging proposes substantively similar dredge and sediment dewatering activities and methods to that described in the 2014 IS/MND. The risk to water quality from equipment leaks and migration of suspended solids would be similar to the impacts disclosed in the 2014 IS/MND, though the impact potential would be lower since the total volume of sediment that would be removed in Lagoon 5 would be 360 cy, compared to 12,000 cy analyzed in the 2014 IS/MND. The impact conclusions of the 2014 IS/MND apply; with Mitigation Incorporated, the Lagoon 5 maintenance dredging would have a Less Than Significant Impact on Hydrology and Water Quality.

Hydrology and Water Quality Mitigation Measures

The following mitigation measures were adopted in the 2014 MND and would apply to the Lagoon 5 maintenance dredging. The full text of the migration measures is provided in the MMRP. It should be noted that the Lagoon 5 maintenance is not likely to require a SWRCB Construction General Permit and a SWPPP as described in **Mitigation Measure HW-1**. In lieu of a SWPPP, the City would require that the contractor prepare a Water Pollution Control Plan (WPCP). Additionally, the proposed Lagoon 5 dredging does not propose use of a polymer system to assist with sediment siltation reduction as described in **Mitigation Measure HW-3;** TSS controls would be based on the TSS control approaches that were successful during previous DMMP dredging.

Mitigation Measure HW-1: BMPs and Erosion Control Measures

Mitigation Measure HW-2: Management of Dewatering Discharges

Mitigation Measure HW-3: Management of Siltation from Dredging Activities

NOISE

Question	2014 DMMP Determination	2024 Lagoon 5 Determination
Would the Project: a) Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Less Than Significant Impact	Less Than Significant Impact
b) Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	Less Than Significant Impact	Less Than Significant Impact
c) have a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	No Impact	No Impact
d) a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	Less Than Significant Impact	Less Than Significant Impact
e) For a project located within the vicinity of a private air strip 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?	Less Than Significant Impact	Less Than Significant Impact

Summary of Noise Impacts from 2014 IS/MND

The 2014 MND estimated construction noise from dredging equipment, loaders, and trucks used to transport dredged material. Predicted noise levels at 50 feet without mufflers or other noise-reducing measures were estimated between 60 and 93 decibels (dB). The 2014 IS/MND concluded the project would comply with the City of Alameda's Nosie Ordinance (Municipal Code Section 4-10). Additionally, the 2014 IS/MND noted that the equipment would create groundborne vibration (estimated to be 0.202 peak particle velocity [PPV]) that would be noticeable to the people in the area but would not exceed thresholds for disturbance or structural damage. As a temporary noise source, the DMMP would have a less-than-significant noise impact.

Comparison of Environmental Impacts

The Lagoon 5 maintenance dredging would create noise from a variety of construction equipment sources; the primary equipment noise would come from the excavator that would be actively working to move sediments and mix desiccant. There would also be noise from the haul trucks/dump trucks, crane, and barge staging, loading and unloading. The proposed dredging in Lagoon 5 would use similar equipment to that analyzed in the 2014 IS/MND. Construction schedule limitations and compliance with the City of Alameda Noise Ordinance (Code Section 4-10.7) would be observed during Lagoon 5 dredging. Therefore, the conclusions of the 2014 IS/MND apply; the Lagoon 5 maintenance dredging will have a Less Than Significant Impact on Noise. No mitigation is required.

RECREATION

Question	2014 DMMP Determination	2024 Lagoon 5 Determination
Would the Project: a) 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?	Less Than Significant Impact	Less Than Significant Impact
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	No Impact	No Impact

Summary of Recreation Impacts from 2014 MND

As a temporary project intended, in part, to improve the recreational environment of the lagoons, the 2014 IS/MND found that the project would have no long-term impacts on recreational facilities. The 2014 IS/MND acknowledged that while one or more lagoon would be closed for dredging, recreation users may shift into the other lagoons. Due to the limited time frame for construction, this impact would be less than significant.

Comparison of Environmental Impacts

The Lagoon 5 maintenance dredging would temporarily close recreational access to Lagoon 5. The 3- to 4-week closure would not significantly affect recreation users or contribute to the deterioration of nearby Lagoons. The conclusions of the 2014 IS/MND apply; the Lagoon 5 maintenance dredging would have a Less Than Significant Impact on Recreation. No mitigation is required.

TRANSPORTATION

Question	2014 DMMP Determination	2024 Lagoon 5 Determination
Would the Project: a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	No Impact	No Impact
c) Result in a change in air traffic patterns, including either an increase in traffic levels, obstructions to flight, or a change in location, that results in substantial safety risks?	No Impact	No Impact
d) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Less Than Significant Impact	Less Than Significant Impact
e) Result in inadequate emergency access?	No Impact	No Impact
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated

Summary of Transportation Impacts from 2014 IS/MND

The 2014 MND found that by hauling at California legal capacity (16 cubic yards per load using California tandem trucks) on an established and City-approved truck haul route, the DMMP would not conflict with existing plans or policies and would not increase hazards due to unsafe or incompatible route selection. Similarly, the 2014 IS/MND found that emergency access would not be affected by the Project as the staging and work areas were limited to small residential streets, which would be accessible to emergency responders during construction. The 2014 IS/MND also determined that the DMMP could temporarily affect bicycle and pedestrian use though major bicycle and pedestrian commuting facilities, like the Bay Trail. To reduce potential impacts on traffic flows on roadways affected by project construction and ensure the safety of bicyclist and pedestrians, the 2014 IS/MND proposed a traffic control plan, described as **Mitigation Measure TRA-1**, which would reduce potential impact to a less-than-significant level.

Comparison of Environmental Impacts

The proposed Lagoon 5 maintenance dredging would use legal capacity trucks with a maximum of 16 cubic yards per load. The haul route would use Encinal Avenue, an established truck route. The Construction Traffic Control Plan, described as **Mitigation Measure TRA-1** in the 2014 IS/MND, would continue to be an appropriate method for ensuring traffic safety and passage for

pedestrians and bicyclists during construction. The 2014 IS/MND applied additional traffic controls that recommended limiting truck hauling between 7:00 a.m. and 9:00 a.m. and after 3:00 p.m. to minimize potential conflicts with school and business traffic. The proposed Lagoon 5 dredging project's Traffic Control Plan, **Mitigation Measure TRA-1**, would account for increased residential traffic during morning and evenings and limit, to the extent possible, haul truck traffic during these times. The conclusions of the 2014 IS/MND apply; with Mitigation Incorporated, the proposed Lagoon 5 dredging would have a Less Than Significant Impact on Transportation.

Transportation Mitigation Measures

The following mitigation measure was adopted in the 2014 MND and would apply to the Lagoon 5 maintenance dredging. The full text of the migration measures is provided in the MMRP.

Mitigation Measure TRA-1: Construction Traffic Control Plan

ATTACHMENT C. DMMP MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION MONITORING AND REPORTING PROGRAM (Includes Text for Adopted Mitigation and Improvement Measures)				
MITIGATION MEASURES	**Responsibility for Implementation**	**Schedule**	**Monitoring/Report Responsibility**	**Status/Date Completed**
Air Quality Mitigation Measures				
Mitigation Measure AIR-1: (Bay Area Air Quality Management District) BAAQMD Construction Mitigation Measures • All exposed surfaces (parking areas, staging areas) 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. • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. • A publicly visible sign would be posted 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 BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.	City of Alameda Public Works Department and Project Contractor.	During project activities.	The Public Works Department shall coordinate with Project Contractor to ensure that these measures are in place during project activities.	Considered complete after end of project construction, and as directed by the Public Works Department.

MITIGATION MONITORING AND REPORTING PROGRAM
(Includes Text for Adopted Mitigation and Improvement Measures)

MITIGATION MEASURES	Responsibility for Implementation	Schedule	Monitoring/Report Responsibility	Status/Date Completed
Biological Resources Mitigation Measures				
Mitigation Measure BIO-1: Protection for Nesting Birds If nesting birds are encountered during project activities, work shall be halted until the birds have fledged or a disturbance-free buffer has been established. Buffer sizes will be established in consultation with Tetra Tech and the California Department of Fish and Wildlife and/or United States Fish and Wildlife Service. If for any reason a bird nest must be removed during the nesting season, the project proponent shall provide written documentation providing concurrence from the appropriate resource agencies (e.g., California Department of Fish and Wildlife and United States Fish and Wildlife Service) authorizing the nest relocation.	City of Alameda Public Works Department and Project Contractor.	During project activities.	Public Works Department, in consultation with the California Department of Fish and Wildlife and/or United States Fish and Wildlife Service as necessary.	Considered complete after end of project construction, and as directed by the Public Works Department.
Cultural Resource Mitigation Measures				
Mitigation Measure CUL-1: Cultural Resources Record Search Prior to commencement of project activities, a record search will be conducted to confirm that there are no recorded cultural resources in or adjacent to the final project area. Pursuant to CEQA Guidelines section 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during the project, all work within 100 feet of the resources shall be halted and the project applicant and/or lead agency shall consult with a qualified archaeologist to assess the significance of the find. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified archaeologist would meet to determine the appropriate avoidance measures or other appropriate measure. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards. In considering any suggested measure proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique	City of Alameda Public Works Department and Cultural Resources Consultant.	Prior to commencement of project activities.	Public Works Department in coordination with approved Cultural Resources consultant.	City of Alameda shall accept the findings and any subsequent mitigation measures of the Cultural Resources record search prior to commencement of project activities.

**MITIGATION MONITORING AND REPORTING PROGRAM
(Includes Text for Adopted Mitigation and Improvement Measures)**

MITIGATION MEASURES	Responsibility for Implementation	Schedule	Monitoring/Report Responsibility	Status/Date Completed
archaeological resources, the project applicant shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while measure for historical resources or unique archaeological resources is carried out.				
Mitigation CUL-2: Accidental Discovery of Human Remains In the event that human skeletal remains are discovered as part of the project, all work shall immediately halt and the Alameda County Coroner shall be contacted to evaluate the remains, and following the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities shall cease within a 100-foot radius of the find until appropriate arrangements are made. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance and avoidance measures (if applicable) shall be completed expeditiously and determine whether there are areas that may be sensitive.	City of Alameda Public Works Department.	During project activities.	Public Works Department and Alameda County Coroner, in consultation with the Native American Heritage Commission as necessary.	Completion of notification and consultation requirements of Pub. Res. Code Sec. 5097.98, Section7050.5(c) of the California Health and Safety Code, and NAGPRA Regulations at 43 CFR 10.4.
Hazards and Hazardous Materials Mitigation Measures				
Mitigation Measure HAZ-1: Site Health and Safety Plan A site Health and Safety Plan (HASP) shall be prepared by the contractor in accordance with federal and state OSHA requirements, and appropriate personal protective equipment shall be used and waste management procedures implemented based on the plan. The HASP will include procedures required to handle and mitigate potential risk to due to lead fibers and other contaminants that could be entrained in airborne particulates in a breathing zone during excavation. This plan will describe training requirements and certifications needed for personnel who would be involved with the removal of	City of Alameda Public Works Department and Project Contractor.	Prior to project activities.	The Public Works Department shall approve the HASP prior to commencement of project activities.	Considered complete after end of project construction, and as directed by the Public Works Department.

MITIGATION MONITORING AND REPORTING PROGRAM (Includes Text for Adopted Mitigation and Improvement Measures)				
MITIGATION MEASURES	**Responsibility for Implementation**	**Schedule**	**Monitoring/Report Responsibility**	**Status/Date Completed**
lead-contaminated material. Adherence to this plan will reduce the potential hazard posed by contaminated sediment to the public and environment to less than significant.				
Mitigation Measure HAZ-2: Management of Soil The project sponsor shall obtain representative samples of dredged material to confirm the appropriate disposal methods. All soil encountered during project activities shall be assumed to contain elevated levels of contaminants and shall be managed appropriately until laboratory testing confirms suitability. Access to the support and work areas will be controlled by fences, and signage to prevent entry by unauthorized personnel and vehicles. Dust generation is not a major concern because the sediment will be placed on trucks to be transported off site as the moisture evaporates. Soil will be covered during transport to the Alameda Point Site 1 landfill.	City of Alameda Public Works Department and Project Contractor	Prior to and during project activities	The Public Works Department shall coordinate with Project Contractor to ensure that these measures are in place during project activities.	Considered complete after end of project construction, and as directed by the Public Works Department.
Hydrology And Water Quality Mitigation Measures				
Mitigation Measure HW-1: Best Management Practices (BMPs) and Erosion Control Measures Erosion control measures and BMPs shall be implemented to minimize the effects of erosion, sedimentation, and leakage of vehicle and equipment fluids and shall be developed further in the project-specific ~~SWPPP~~ Water Pollution Prevention and Control Plan (WPPCP) prepared by the contractor, in accordance with the requirements of the General Construction Permit. The BMPs described in the ~~SWPPP~~ WPPCP shall require review and approval by the Regional Water Quality Control Board (RWQCB). BMPs implemented as part of the proposed project could include the measures described below. The measures could be altered, supplemented, or deleted during the RWQCB review process. Implementation of these measures shall help meet the relevant water quality objectives included in the Basin Plan (for example, maintain beneficial uses of receiving waters, not create floating material or visible film at the water surface, and prevent toxic substances in concentrations that would adversely affect aquatic life in receiving waters) (SWRCB 2011).	City of Alameda Public Works Department and Project Contractor	Prior to and during project activities	The Regional Water Quality Control Board shall approve the BMPs as described in the ~~SWPPP~~ WPPCP. The Public Works Department shall coordinate with Project Contractor to ensure that these measures are in place during project activities.	Considered complete after construction of project.

MITIGATION MONITORING AND REPORTING PROGRAM
(Includes Text for Adopted Mitigation and Improvement Measures)

MITIGATION MEASURES	Responsibility for Implementation	Schedule	Monitoring/Report Responsibility	Status/Date Completed
Mitigation Measure HW-2: Management of Dewatering Discharges The contractor shall prepare a project-specific dewatering plan to address potential impacts of dewatering discharges during construction on the water quality of receiving water bodies and to comply with the NPDES requirements. The discharges shall be handled in accordance with the General Construction Permit. A management plan for dewatering shall be prepared to comply with the NPDES requirements. The discharges shall be handled in accordance with the General Construction Permit and shall be developed and approved before dredging. The dewatering management plan shall specify methods for collecting, transporting, treating, and discharging all water produced by construction site dewatering. Applicable BMPs shall be identified in the dewatering management plan to ensure that discharges to receiving waters meet applicable water quality objectives.	City of Alameda Public Works Department and Project Contractor.	Prior to commencement of project activities.	The Public Works Department shall approve the dewatering plan prior to commencement of project activities.	Considered complete after end of project construction, and as directed by the Public Works Department.
Mitigation Measure HW-3: Management of Siltation from Dredging Activities The dredging associated with the project has the potential to cause an increase of suspended solids in the lagoons if suspended solids are not properly managed during dredging of the priority areas. The project contractor shall segregate the priority areas by installing silt curtains during dredging if the TSS concentrations during dredging exceed background concentrations established before dredging. The silt curtain will help prevent suspended solids from increasing TSS concentrations in areas of the lagoon no being dredged. ~~If the solids do not settle, a small polymer system on a barge will use a small amount of polymer to circulate to aid the settling of suspended solids~~.	City of Alameda Public Works Department and Project Contractor	Prior to and during project activities.	The Public Works Department shall approve the methodology, materials and equipment for management of siltation prior to commencement of project activities.	Considered complete after end of project construction, and as directed by the Public Works Department.

MITIGATION MONITORING AND REPORTING PROGRAM (Includes Text for Adopted Mitigation and Improvement Measures)				
MITIGATION MEASURES	**Responsibility for Implementation**	**Schedule**	**Monitoring/Report Responsibility**	**Status/Date Completed**
Traffic and Transportation Mitigation Measures				
Mitigation Measure TRA-1: Construction Traffic Control Plan The project contractor shall prepare and successful implement a construction traffic control plan that will include project-specific measures to reduce potential impacts on traffic flows on roadways affected by project construction. This plan will be reviewed and approved by the City of Alameda prior to commencement of project activities. These roadways will include, but not be limited to Willow Street, Grand Street, and Broadway. The plan shall include the following: • Flaggers or signs will guide vehicle and other traffic (pedestrian and bicycles) through or around the construction zone. At all times, the contractor will maintain access for emergency response vehicles. • Large truck and delivery trips shall be scheduled outside the peak morning and evening commute hours, and outside on-site peak traffic hours (for parking lot use). • Along major arterials, truck trips will be scheduled outside the peak morning, peak evening, and event commute periods to the extent feasible. • Construction, particularly related to lane closures, will be coordinated with local transit service providers. • On-going and up-to-date information relating to the construction schedule and affected roadways and intersections, particularly lane closures, and a contact person, shall be provided to the public, for example on the City of Alameda website. • Where it is feasible and safe to do so, existing pedestrian and bicycle access and circulation will be maintained at all times. If access and circulation cannot be maintained, detours will be designated and posted for pedestrians and bicyclists. • All construction equipment and materials will be stored in designated contractor staging areas on or adjacent to the worksite, in a manner that minimizes obstruction of traffic.	City of Alameda Public Works Department and Project Contractor	Prior to and during project activities.	The Public Works Department, Fire Chief, and Police Chief shall review and approve the Construction Traffic Control Plan prior to commencement of project activities.	Considered complete after end of project construction, and as directed by the Public Works Department.

MITIGATION MONITORING AND REPORTING PROGRAM (Includes Text for Adopted Mitigation and Improvement Measures)				
MITIGATION MEASURES	**Responsibility for Implementation**	**Schedule**	**Monitoring/Report Responsibility**	**Status/Date Completed**
• Public roadways will be repaired or restored to their original conditions upon completion of construction. • The traffic control plan will conform to the *California Manual on Uniform Traffic Control Devices: Part 6*, "Temporary Traffic Control." Traffic plans may require approval from City emergency response providers. Traffic circulation patterns and associated signage will be approved by the City.				