December 23, 2019
CIWQS Reg. Meas. 427393
CIWQS Place ID 805709

City of Alameda Public Works Department
950 West Mall Square, Room 110
Alameda, CA 94501
Attn.: Andrew Nowacki, Associate Engineer
E-mail: ANowacki@alamedaca.gov

Subject: Water Quality Certification, Sediment Removal from Alameda South Shore Lagoons, City of Alameda, Alameda County

Dear Mr. Nowacki:

We have reviewed the application submitted by The City of Alameda (City) on November 11, 2018, and the supplemental information submitted by Harrison Engineering Inc. on October 14, 2019. We hereby issue a Clean Water Act (CWA) section 401 water quality certification (Certification) for the City to remove sediment from portions of Lagoons 3 and 5 of the Alameda South Shore Lagoons, a system of five constructed lagoons connected by culverts, located near the southwestern shoreline of Alameda Island (Figure 1). The City has received a U.S. Army Corps of Engineers (USACE) Nationwide Permit No. 3 (USACE File No. 2013-00402S) pursuant to CWA section 404 (33 USC 1344) and section 10 of the Rivers and Harbors Act of 1899 (33 USC 403). The City applied to the San Francisco Bay Regional Water Quality Control Board (Water Board) for a Certification verifying that the sediment removal action described below (Project) will not violate State water quality standards.

Project

The Project involves removing a total of approximately 800 cubic yards (cy) of sediment comprising 630 cy from 0.27 acres in the southeastern corner of Lagoon 3 and 170 cy from 0.06 acres in the eastern corner of Lagoon 5 (Figures 2 and 3). The Project depth comprises a design depth of -2 feet mean lower low water (MLLW) plus an additional 1-foot overdredge allowance. The Project footprints within the two lagoons are associated with sedimentation near outfall pipes and culverts under roads, which restricts the flow of water through the lagoons, decreases the available detention volume for storm water runoff, and reduces their ability to support recreational boating. All sediment removed during the Project will be taken to a permitted non-hazardous solid waste landfill for disposal.
Water in the lagoon system is largely salt water pumped from San Francisco Bay through a pipeline with an intake approximately 400 feet offshore of the westernmost lagoon (Lagoon 1). In addition, approximately 1,000 acres (1.6 square miles) of the city drains into the lagoons via overland drainage and storm drain pipes. The water moves by gravity from northwest to southeast through a series of culverts connecting the five lagoons. Water levels in the lagoons are lowered slightly before each major storm so that stormwater can be detained before it flows over a weir at the end of Lagoon 5 and through storm drain pipes to the Bay. The City partially drains the lagoons annually for approximately one month in late spring or summer to maintain culverts and to allow homeowners to maintain their docks and lagoon walls. The average lagoon depth is approximately 3 feet, and the maximum depth is approximately 6 feet.

**Method of Sediment Removal**

The City proposes to remove the sediment in the spring/summer of 2020 when the lagoon water levels are lowered for maintenance of the lagoon system. The corner areas of Lagoons 3 and 5 will be drained until mostly dry and the sediment excavated using land-based equipment such as an excavator. A skid-steer (Bobcat) loader could also be lowered into the lagoon if necessary to access areas out of reach of the excavator. Dewatering of the excavated sediment may be necessary depending on the weather and may require the addition of desiccants such as diatomaceous earth or Portland cement prior to loading into trucks for offsite disposal.

**Sediment Chemistry Testing**

Three composite sediment samples from Lagoon 3 and one composite sample from Lagoon 5 collected from the dredge footprint areas to Project dredge depth were tested for chemical contaminants in June 2019.

The composite sediment samples were analyzed for 17 metals, organochlorine pesticides, PCBs, total petroleum hydrocarbons (TPH) as diesel (TPHd), oil (TPHo), and gasoline (TPHg), semi-volatile organic compounds (which include 16 priority pollutant PAHs), and volatile organic compounds. Because homeowners may be exposed to sediment in the Project area when maintaining their docks and lagoon walls, concentrations of detected contaminants were compared to the lower of human health risk-based thresholds generated by the Water Board¹, U.S. EPA², and the Department of Toxic Substances Control (DTSC)³.

TPHd, TPHo, copper, molybdenum, vanadium, and zinc exceeded their respective Tier 1 Environmental Screening Levels (ESLs) in the composite samples collected in Lagoon 3. TPHd, TPHo, copper, lead, vanadium, two PAH compounds, and PCB Arochlor 1254 exceeded screening criteria in composite sample collected in Lagoon 5. Multiple

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¹ Environmental Screening Level (ESL), San Francisco Bay Regional Water Quality Control Board, January 2019.
³ DTSC Recommended Screening Level, residential soil, Human and Ecological Risk Office Note 3, April 2019.
contaminants in both lagoons exceeded San Francisco Bay ambient sediment contaminant concentrations\(^4\). The City proposes to dispose of the sediment removed from Lagoons 3 and 5 in a permitted non-hazardous solid waste landfill.

**California Environmental Quality Act**

On April 15, 2014, the City Council of the City of Alameda, as lead agency, adopted a Mitigated Negative Declaration (MND) (State Clearinghouse (SCH) No. 2014022059) for the Project and filed a Notice of Determination at the SCH on April 21, 2014. The Water Board, as a Responsible Agency under CEQA, has reviewed the MND and finds that the any potentially significant environmental effects that are within the Water Board’s purview and jurisdiction have been identified and will be mitigated to less-than-significant levels. Specifically, significant impacts pertaining to water quality will be mitigated to less-than-significant levels through implementation of mitigation measures identified in the MND, all of which are required to be implemented and reported on by this Certification.

**Certification and General Waste Discharge Requirements**

I hereby certify that any discharge from the Project, as conditioned by this Certification, will comply with the applicable provisions of CWA sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards), and with other applicable requirements of State law. CWA section 401 directs the agency responsible for certification to prescribe effluent limitations and other limitations necessary to ensure compliance with the CWA and with any other appropriate requirement of State law. Section 401 further provides that State certification conditions shall become conditions of any federal license or permit for the project. The conditions of this Certification must be met to ensure that the Project will comply with water quality standards, any applicable effluent limitation, standard of performance, prohibition, effluent standard, or pretreatment standard required pursuant to the CWA sections listed above and to ensure that the Project will comply with any other appropriate requirements.

This discharge of dredged or fill material is also considered to be a discharge of waste to waters within the jurisdiction of the Water Board. Pursuant to Article 4 of Chapter 4, Division 7 of the California Water Code (Wat. Code § 13260 et seq.), the Water Board must issue waste discharge requirements for these discharges. Therefore, this Certification also enrolls the above referenced Project under the State Water Resources Control Board’s Order No. 2003-0017-DWQ, "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification" (General Order). The only substantive requirement of the General Order is to comply with the limitations and monitoring requirements contained in this Certification. Fees paid to satisfy California Code of Regulations, title 23, section 3833(b) (fees associated

\(^4\) Updated Ambient Concentrations of Toxic Chemicals in San Francisco Bay Sediments, San Francisco Estuary Institute, Richmond, CA, July 2015.
with this Certification) shall also be deemed to satisfy fees required by the General Order. The following conditions are associated with this Certification:

1. Dredging shall be limited to the project depth of -2 feet MLLW, plus an additional 1-foot overdredge allowance.

2. None of the sediment removed from the lagoons shall be permitted to leak or spill from trucks hauling it from the Project site to the landfill disposal site.

3. No unauthorized Project-related materials or wastes shall be allowed to enter or be placed where they may be washed by rainfall or runoff into, waters of the State.

4. **Dredge Operation Plan:** The City shall submit a Dredge Operation Plan, acceptable to the Executive Officer, to Water Board staff no earlier than 60 calendar days and no later than 20 calendar days prior to commencement of dredging. The Plan shall include, in addition to the requirements of NWP 3 Special Condition 1.a:
   - A description of the containment method for preventing sediment and associated contaminants from being released outside the dredge footprint.
   - A description of the dewatering process that would be used if determined necessary and associated best management practices (BMPs) for protecting water quality.
   - Information on equipment staging and associated BMPs for protecting water quality (e.g., how will dredging equipment get into and out of the lagoons, how will it be fueled and maintained, how and where will the dredged material be loaded onto trucks, what dust or erosion control measures will be implemented if necessary, and other pertinent information, as needed).

5. **Post-Dredge Report:** The City shall provide an electronic copy of the Post-Dredge Report to Water Board staff within 60 days of completion of sediment removal operations. The report may be submitted via email, compact disc, or by uploading to the Water Board’s FTP site (instructions for accessing and uploading documents will be provided by Water Board staff upon request). The report shall contain the dates of sediment removal, maps of the footprint, the calculated final volume of sediment removed, the disposal location(s), and the volumes per location if more than one site was used.

6. The City or its representative shall notify Water Board staff immediately by telephone and e-mail whenever an adverse condition occurs due to this activity. An adverse condition includes, but is not limited to, a violation or threatened violation of conditions of this Certification, or a release of petroleum products or
toxic chemicals to waters of the State. Pursuant to Water Code section 13267, a written notification of adverse condition shall be submitted to the Water Board within 30 days of occurrence. The written notification shall identify the adverse condition, describe the action necessary to remedy the condition, and specify a timetable, subject to the modifications of the Water Board, for remedial actions.

7. This Certification is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the Water Code and section 3867 of Title 23 of the California Code of Regulations (23 CCR).

8. This Certification is not intended and shall not be construed to apply to any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR subsection 3855(b) and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

9. Certification is conditioned upon total payment of the full fee required in State regulations (23 CCR section 3833). The application fee for the Project ($1,638) was paid in full on October 29, 2019. Additional annual discharge fees are required and will be invoiced annually for the previous fiscal year until the Project is complete or the Certification expires. The annual discharge fee is based on the volume dredged during the previous fiscal year (July 1–June 30), calculated using Post-Dredge Report results provided to the Water Board per Condition 5.

Conclusion
This Certification applies to the Project as proposed in the application materials. Please be advised that failure to implement the Project as proposed is a violation of this Certification. Any violation of 401 water quality certification conditions is subject to administrative civil liability pursuant to Water Code sections 13268 and 13350. Failure to meet any condition of this Certification may subject The City to civil liability imposed by the Water Board to a maximum of $5000 per violation day for violations of Water Code section 13267 technical report requirements and $5,000 per violation day or $10 for each gallon of waste discharged in violation of this Certification.

We anticipate no further action on the application for this Certification. Should new information come to our attention that indicates a water quality problem with this project, the Water Board may issue individual waste discharge requirements pursuant to 23 CCR section 3857.
If you have any questions, please contact Kevin Lunde at (510) 622-2431, or by email, to kevin.lunde@waterboards.ca.gov.

Sincerely,

For Michael Montgomery  
Executive Officer

Attachments:  
Figure 1. Location Map  
Figure 2. Lagoon 3 Footprint  
Figure 3. Lagoon 5 Footprint

cc w/attachments (all via email):  
SWRCB, DWQ (Stateboard401@waterboards.ca.gov)  
CDFW, Santa Rosa, CA (Arn Aarreberg, Arn.Aarreberg@wildlife.ca.gov)  
USACE, San Francisco, CA (Jessica Vargas, Jessica.M.Vargas@usace.army.mil)  
USEPA, San Francisco, CA (Jennifer Siu, Siu.Jennifer@epa.gov)
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Figure 2. Lagoon 3 Footprint
Figure 3. Lagoon 5 Footprint