SEAPLANE LAGOON FERRY TERMINAL OF THE ALAMEDA POINT PROJECT

CEQA ADDENDUM

TO THE ALAMEDA POINT PROJECT ENVIRONMENTAL IMPACT REPORT

City of Alameda

March 2016

URBAN PLANNING PARTNERS INC.

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PROJECT INFORMATION

1. **Project Title:** Seaplane Lagoon Ferry Terminal of the Alameda Point Project (APP)

2. **Lead Agency Name and Address:**

   City of Alameda
   2263 Santa Clara Street
   Alameda, CA 94501

3. **Contact Person and Phone Number:**

   Jennifer Ott, Base Reuse Director
   (510) 747-4747

4. **Project Location:**

   The project site is located along the eastern edge of Seaplane Lagoon within Alameda Point on the former Alameda Point Naval Air Station in the City of Alameda, California. The site is immediately west of Ferry Point, south of West Atlantic Avenue, and north of West Oriskany Avenue, at the proposed intersection of Pacific Avenue and Ferry Point.

5. **Project Applicant**

   City of Alameda
   2263 Santa Clara Street
   Alameda, CA 94501
   (510) 747-4747

6. **General Plan Designation:**

   Mixed-Use 3 (AP-3) (also known as Marina Subarea)

7. **Zoning:**

   Waterfront Town Center (AP-WTC) Sub-district

8. **Project Summary:**

   The City of Alameda (the City) proposes the Seaplane Lagoon Ferry Terminal of the APP (proposed project), which would involve construction of a new ferry terminal in Seaplane Lagoon at Alameda Point to expand existing ferry service from Alameda to San Francisco. The Seaplane Lagoon Ferry Terminal would serve the anticipated increase in demand for Alameda-to-San Francisco ferry service from planned development under the APP as well as the Alameda/Oakland area in general, and also would augment the existing service at the Main Street Ferry Terminal, which has limited capacity for increased ridership.[1]

[1] Seaplane Lagoon Ferry Service Project Draft Memorandum of Understanding between City of Alameda and WETA, 2016.

The City is working in partnership with the San Francisco Bay Area Water Emergency Transportation Authority (WETA) to provide the expanded ferry service. WETA ferry service at both the proposed Seaplane Lagoon Ferry Terminal and the Main Street Ferry Terminal are collectively referred to in this Addendum as the "western Alameda ferry service."

The proposed project would consist of waterside improvements that include the proposed Seaplane Lagoon Ferry Terminal, shoreline repairs, and a new ferry vessel, as well as demolition of the existing deteriorating pier north of the proposed terminal. The project would also involve landside improvements to create pedestrian, bicycle, transit, and vehicle connections with the ferry service. The landside improvements include a 400-space surface parking lot; upgrades to Ferry Point roadway for transit, bicycle, and pedestrian access; and a promenade area along the waterfront.

The project is described further in the *Project Description* section below.

BASIS FOR ADDENDUM

The proposed ferry terminal was analyzed at a program level in the *Alameda Point Project Environmental Impact Report* (APP EIR)[2] which analyzed development of a ferry terminal in Seaplane Lagoon as described in the *Alameda Point Town Center and Waterfront Precise Plan*. This Addendum evaluates the potential project-specific impacts of constructing and operating a new ferry terminal in Seaplane Lagoon at Alameda Point, and evaluates whether the conditions for preparation of a subsequent or supplemental EIR or a Negative Declaration pursuant to Sections 15162 or 15163 are met. This Addendum concludes that the additional level of detail about the project does not involve new or substantially more severe significant environmental effects; therefore, no subsequent of supplemental EIR is required.

Additionally, the operation of ferries serving Alameda has been analyzed by WETA in two EIRs. The *San Francisco Bay Area Water Emergency Transportation Authority's (WETA) Program EIR for the Expansion of Ferry Transit Service in the San Francisco Bay Area* (WETA PEIR)[3] addressed the expansion of ferry service in San Francisco Bay, including the potential impacts associated with operation of additional and expanded routes. The *WETA Environmental Impact Statement/EIR for the Downtown San Francisco Ferry Terminal Expansion Project* (SF Expansion EIS/EIR)[4] addressed the expansion of ferry facilities at the San Francisco Ferry Terminal (the destination of the proposed new ferry service from Seaplane Lagoon), including increased ferry trips and ridership. The proposed Seaplane Lagoon Ferry Terminal would not change the operations of the ferries that serve Alameda except that a portion of the ferries would now enter Seaplane Lagoon; the ferries that will serve the new Seaplane Lagoon Ferry Terminal will be operated by WETA.

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[2] ESA, 2013. Alameda Point Project Environmental Impact Report. State Clearinghouse No. 2013012043. Certified February 4, 2014.

[3] URS, 2003. *Final Program Environmental Impact Report for the Expansion of Ferry Transit Service in the San Francisco Bay Area.*

[4] URS, 2014. *Final Environmental Impact Statement and Record of Decision/Environmental Impact Report for the Downtown San Francisco Ferry Terminal Expansion Project,* September.

Incorporation by Reference

This Addendum hereby incorporates by reference the following documents:

1. Alameda Point Project Environmental Impact Report (APP EIR).

2. Final Program Environmental Impact Report for the Expansion of Ferry transit Service in the San Francisco Bay Area (WETA PIER)

3. Final Environmental Impact Statement and Record of Decision/Environmental Impact Report for the Downtown San Francisco Ferry Terminal Expansion Project (SF Expansion EIS/EIR)

The analyses of all potential environmental impact topics, including all background information regarding the environmental setting of these documents, are incorporated by reference.

The APP EIR, WETA PEIR, and SF Expansion EIS/EIR are available for review at:

City of Alameda
Base Reuse Department
2263 Santa Clara Avenue
Alameda, CA 94501
Hours open: Monday – Thursday, 8:00 a.m.to 5:00 p.m.

In addition, electronic copies are available online, as follows:

- APP EIR – on the City's website at http://alamedaca.gov/alameda-point/eir
- WETA PEIR – on WETA's website at http://sanfranciscobayferry.com/weta/publications
- SF Expansion EIS/EIR – on WETA's website at http://sanfranciscobayferry.com/weta/downtown-san-francisco-ferry-terminal-expansion-project-environmental-review

Alameda Point Project EIR (APP EIR)

The APP EIR evaluated the potential environmental impacts associated with redevelopment and reuse of the 878 acres of land and approximately 1,229 acres of water at the former Alameda Point Naval Air Station, located at the western end of the City of Alameda. The APP EIR specifically evaluates the following:

- Maritime and water-related recreational uses in and adjacent to Seaplane Lagoon, including a new ferry terminal along its eastern shoreline;
- Rehabilitation and new construction of 1,425 residential units (approximately 3,240 residents) and rehabilitation, reuse, and new construction of approximately 5.5 million square feet of commercial and workplace facilities (approximately 8,900 jobs);
- Rehabilitation and new construction of open space, parks, and trails;

- Adoption of a Master Infrastructure Plan for the replacement, reconstruction, and rehabilitation of deteriorated and substandard infrastructure, buildings, and shoreline protections; and
- Adoption of a General Plan Amendment, a Zoning Ordinance Amendment, and a Precise Plan that would create planning sub-districts in Alameda Point to facilitate a seamless and integrated mixed-use, transit-oriented community consistent with the existing General Plan and Reuse Plan.

At full buildout, the APP is planned to result in up to:

- 5.5 million square feet of developed space including approximately
  - 3,060,500 square feet of manufacturing/warehouse uses
  - 1,627,500 square feet of office/business park/institutional uses
  - 812,000 square feet of retail/commercial uses
- 1,425 residential units;
- 291 acres of parks and open space;
- New ferry terminal; and
- 530 marina slips.

In February 2014, the Alameda City Council approved a Master Infrastructure Plan, General Plan Amendment, and Zoning Ordinance Amendment, and certified the APP EIR; in May 2014, the City Council approved the Alameda Point Transportation Demand Management Plan; and in July 2014, the City Council approved the Alameda Point Town Center and Waterfront Precise Plan.

The APP EIR analyzed the following environmental resource topics: land use consistency and compatibility; population and housing; transportation and circulation; cultural and paleontological resources; biological resources; air quality and greenhouse gases (GHGs); noise; geology, soils, and seismicity; hydrology and water quality; hazards and hazardous materials; aesthetics; public services and recreation; and utilities and service systems.

Significant and unavoidable impacts, even with implementation of mitigation measures, were identified in the APP EIR for the following environmental resource topics: transportation and circulation; cultural resources; air quality and GHGs; and noise. In addition, the APP EIR identified mitigation measures that would reduce significant impacts to less-than-significant levels for the following resources: biological resources; geology, soils, and seismicity; hydrology and water quality; hazards and hazardous materials; aesthetics; and utilities and service systems. All of the mitigation measures identified in the APP EIR were adopted and incorporated into the APP by City Council Resolution No. 14891.

All of the mitigation measures identified in the APP EIR were adopted and incorporated into the APP by City Council Resolution No. 14891 and are part of the project. Attachment A to this Addendum is a Project-Specific Mitigation Monitoring and Reporting Program (MMRP) prepared for the Seaplane Lagoon Ferry Terminal and identifies the mitigation measures from the APP EIR that would apply to construction and operation of the project. This MMRP was prepared as an administrative convenience in order to excerpt from the larger APP MMRP the previously adopted mitigation measures specific to the project in order to assist in implementation. As

described for each environmental resource topic in the Addendum, with implementation of the applicable previously adopted mitigation measures, the project would not result in significant impacts beyond, or significantly greater than, those analyzed in the APP EIR.

Program EIR for the Expansion of Ferry Transit Service in the San Francisco Bay Area (WETA PEIR)

The WETA PEIR, certified in June 2003 by the WETA Board of Directors, evaluated WETA's proposed expansion of ferry service in the San Francisco Bay Area. The primary purpose of this program is to increase regional mobility and transportation options by providing new and expanded water transit services and ground transportation terminal access in the San Francisco Bay Area. The WETA EIR analyzed the expansion of existing service and new routes as described in the Implementation and Operations Plan (IOP), as well as four program alternatives. The IOP provides expanded ferry service and associated landside transit to be implemented in phases through 2025, and includes expanded ferry service between the existing Main Street Ferry Terminal in western Alameda and the San Francisco Ferry Terminal. While the IOP does not represent a precisely fixed set of routes and terminal sites, it is based on the anticipated routes and terminals that would result from its implementation. In addition, Alternative 1 (evaluated in the draft WETA PEIR) included ferry service between a new terminal at Seaplane Lagoon (i.e., the project site) and the San Francisco Ferry Terminal.

The WETA PEIR analyzed the following environmental resource topics: dredging; navigation; wake analysis; water resources; biology; air quality; land use and community issues; aesthetics; cultural resources; geology; noise; transportation; energy; and growth inducing impacts.

Significant and unavoidable impacts were identified for air quality. Potentially significant impacts, even with implementation of mitigation measures, were identified for the following environmental resource topics: navigation; wake analysis; biology; land use and community issues; aesthetics; cultural resources; noise; and energy. In addition, the WETA PEIR identified mitigation measures that would reduce significant impacts to less-than-significant levels for the following resources: dredging; water resources; geology; transportation; and growth inducement.

Mitigation measures were identified in the WETA PEIR and were adopted and incorporated into the ferry service expansion project by WETA, and are thus part of the approved ferry operations and expansion of Seaplane Lagoon ferry service.

EIS/EIR for the Downtown San Francisco Ferry Terminal Expansion Project (SF Expansion EIS/EIR)

The SF Expansion EIS/EIR, which was certified in October 2014, addressed the construction of three new ferry gates and overwater berthing facilities, in addition to supportive landside improvements such as additional passenger waiting and queuing areas, circulation improvements, and other water transit-related amenities at the San Francisco Ferry Terminal. The new gates and amenities will support projects currently under development to provide new ferry service to Richmond, Berkeley, Treasure Island, and other locations, as well as efforts to enhance existing services.

As described in the SF Expansion EIS/EIR, by 2035, the San Francisco Ferry Terminal is projected to serve approximately 32,000 water transit passengers per weekday, a 300-percent increase over current ridership (approximately 11,200 passengers); of that total, WETA's 2035 ridership is expected to account for approximately 25,000 passengers. The projected increase in ridership by 2035 is due to expansion of existing services, implementation of new routes that have already been approved, and development of new water transit routes. The projected increase in ridership and vessel docking at the San Francisco Ferry Terminal includes the expansion of ferry service to western Alameda. Construction of the San Francisco Ferry Terminal expansion is anticipated to be completed by 2019.

The SF Expansion EIS/EIR analyzed the following environmental resource topics: transportation and circulation; land use and land use planning; parklands and recreation; Section 4(f) resources; air quality and global climate change; noise and vibration; cultural and paleontological resources; biological resources; aesthetics and visual resources; hydrology and water quality; hazards and hazardous materials; geology, soils, and seismicity; energy consumption; utilities and public services; socioeconomics; environmental justice; and regional growth.

Significant and unavoidable impacts, even with implementation of mitigation measures, were identified for transportation and circulation. The SF Expansion EIS/EIR identified mitigation measures that would reduce significant impacts to less-than-significant levels for the following resources: land use and land use planning; parklands and recreation; air quality and global climate change; noise and vibration; cultural and paleontological resources; biological resources; hazards and hazardous materials; and utilities and public services.

Impacts that pertain to increased vessel docking and riders at the San Francisco Ferry Terminal which would apply to the proposed project have been adequately addressed in the SF Expansion EIS/EIR. The mitigation measures for these impacts were adopted and incorporated into the SF Expansion project by WETA, and are thus part of the approved ferry operations.

CEQA Guidelines Sections 15162, 15163 and 15164

Section 15164(a) of the CEQA Guidelines states that "a lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred." Section 15164(c) of the Guidelines states that "a brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR."

Pursuant to Section 15162(a), when an EIR has been certified or a Negative Declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

(1) Proposed substantial changes in the project will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance (which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted) shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration.

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR.

(C) 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.

(D) Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Pursuant to Section 15163(a) (1)-(2), the lead agency may choose to prepare a supplement to an EIR if any of the conditions in Section 15162 are met, but "[o]nly minor additions or changes would be necessary to make the previous EIR apply to the project in the changed situation."

Applicability of CEQA Guidelines Sections 15162, 15163, and 15164 to the Project

For the reasons explained below, none of the conditions for preparation of a subsequent EIR found in CEQA Guidelines Section 15162(a) apply to the project.

1. The project does not involve substantial changes that would require major revisions to the APP EIR. The key components of the project were analyzed in the APP EIR and include: construction and operation of a ferry terminal in Seaplane Lagoon, entailing in-water construction and operating activities; multi-modal transportation hub connecting ferry and transit service, including access improvements and public parking facilities; and Bay trail extension; and geotechnical improvements. Table 1 provides further detail for each project component. Overall, the project is consistent with the analysis in the APP EIR and does not require revisions to the APP EIR due to new or substantially more severe significant environmental effects.

TABLE 1 COMPARISON OF APP EIR DEVELOPMENT PROGRAM AND PROJECT

Key Components	Development Program[a]	Project
Construction and operation of a ferry terminal in Seaplane Lagoon	Potential locations of terminal along eastern edge of Seaplane Lagoon.	Terminal location along eastern edge of Seaplane Lagoon near Pacific Avenue and Ferry Point Way.
In-water construction activities and ferry operations	The project includes a ferry terminal, ferry services, and other new maritime uses and facilities such as floating docks, piers and other improvements to support commercial, public, and recreational use of the Seaplane Lagoon.	Demolition of existing pier structure. Construction of a ferry terminal that includes an abutment and pier, gangway, boarding float, and a canopy that runs the length of the pier.
Multi-modal transportation hub connecting ferry and transit service, including access improvements and public parking facilities	New ferry terminal as a "multi-modal transportation hub,"[5] connecting ferry, AC Transit, and shuttle services with transit users and providing for transit users to access the terminal on foot, by bicycle, or by automobile.	New bus stop and bus turnaround, passenger drop off location, new bike lanes and bike parking, pedestrian promenade, and new parking facility with up to 400 parking spaces.
Extension of Bay Trail	New bike and pedestrian access to the waterfront around Seaplane Lagoon.	New bike and pedestrian access to the waterfront along a portion of the eastern side of Seaplane Lagoon.
Geotechnical improvements for seismic stability	Ground improvement techniques to reduce the potential of soil liquefaction, including dynamic impact/vibration to densify the soil or mixing with cement.	Soil stabilization around the pier abutment location, including cement injection.
Ferry operations within Seaplane Lagoon	500-foot access corridor in Seaplane Lagoon for all marine crafts.	Ferry operations in Seaplane Lagoon under the project would not require alteration to the proposed 500-foot access corridor.
Greenhouse gas reduction through transit-oriented development	Transit-oriented development consistent with Regional Sustainable Communities Strategies for greenhouse gas emission reductions as required by SB 375	New transit service provided by the Seaplane Lagoon ferry terminal in close proximity to future residential development.

[a] Only the aspects of the APP relating to the ferry terminal are listed here.
Source: ESA, 2013. Alameda Point Project Environmental Impact Report. State Clearinghouse No. 2013012043. Certified February 4, 2014.

As described and analyzed in the APP EIR, the project would include construction and operation of a new ferry terminal along the eastern edge of Seaplane Lagoon and the new ferry terminal would provide service from Alameda to San Francisco and offer a direct route and shorter commute time than current ferry service from the Main Street Ferry Terminal.

[5] APP EIR, Project Description, page 3-22.

The APP EIR describes how development at Alameda Point will create opportunities for transit-oriented development consistent with Regional Sustainable Communities Strategies for GHG emission reductions as required by SB 375. The implementation of a new ferry terminal serving Alameda Point located near proposed Site A and Site B development would provide a new transit option convenient to future residential development. The new ferry service would help to reduce GHG emissions associated with automobile trips through VMT reduction.

The APP EIR designated the location for the new ferry terminal within Seaplane Lagoon with future service provided by WETA, and described the new ferry terminal as a "multi-modal transportation hub"[6] – connecting ferry, AC Transit, and shuttle services with transit users and providing for transit users to access the terminal on foot, by bicycle, or by automobile. Under the APP EIR, the new ferry terminal would include a bus drop-off area (collocated with the terminal) and public parking facilities (on- or off-site), and provide for an intermodal transit center.

The project would include intermodal facilities adjacent to Seaplane Lagoon Ferry Terminal, including a new bus stop and bus turnaround, a passenger drop off location, new bike lanes and bike parking, a pedestrian promenade, and a new parking facility with up to 400 parking spaces. The inclusion of these intermodal supportive facilities is consistent with the APP EIR.

The APP EIR includes extension of the Bay Trail along West Atlantic Avenue to Seaplane Lagoon and along Main Street, providing connections to Alameda's existing island-wide network of pedestrian and bicycle facilities. The project would include new pedestrian and bicycle access to the waterfront from West Atlantic avenue south to the future extension of Pacific Avenue. This access is consistent with the location of the proposed Bay Trail under the APP EIR, and would allow future connection to the wider Bay Trail system proposed under the APP EIR.

The APP EIR described the new ferry terminal as being potentially located near the intersection of West Atlantic Avenue and Ferry Point[7] or near Ferry Point south of West Atlantic Avenue and north of the proposed Pacific Avenue extension.[8]

The project would locate the Seaplane Lagoon Ferry Terminal at the intersection of Ferry Point Road and Pacific Avenue, as shown in Figure 5. This proposed location is slightly south of the locations described in the APP EIR, and is proposed to avoid the need for dredging to construct the terminal, its proximity to parking and the need to avoid interference with operations in a nearby building.

The draft master infrastructure plan (MIP) completed as a part of the Precise Plan and incorporated into the APP EIR also outlines required corrective geotechnical improvements for the project site. Corrective geotechnical measures are necessary to provide seismic

[6] APP EIR, Project Description, page 3-22.
[7] APP EIR, Figure 3-8, Proposed Transit Network.
[8] APP EIR, Figure 3-7, Alameda Point Circulation Framework .

stability of the project's shorelines and underlying soils. The project would include soil stabilization around the pier abutment area, consistent with the APP EIR. The soil stabilization is anticipated to include cement injection, a method included in the APP EIR analysis for reducing the liquefaction potential of soils along the shoreline and in other areas.

Ferry operations analyzed in the APP EIR include movement of vessels within Seaplane Lagoon and staff operations at the terminal facilities. The APP EIR also analyzed the construction of a new ferry terminal within Seaplane Lagoon and anticipated that dredging and pile driving (both in Seaplane Lagoon and on land) would be needed to construct the new terminal.

This Addendum and attached technical memoranda evaluate the project and find that it would not result in any new significant impacts or a substantial increase in the severity of significant impacts identified in the APP EIR.

2. There are no substantial changes in the circumstances under which the project would occur. The existing conditions described in the APP EIR adequately describe the environment and circumstances under which the proposed project would occur. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from the changes under which the project would be undertaken, as discussed in the Addendum section below. The APP EIR adequately described the environment and circumstances of the proposed ferry terminal development and operations within Seaplane Lagoon. Since certification of the APP EIR, conditions in and around the APP site remain as described in the APP EIR; therefore, implementation of the project (including the proposed refinements) would not result in new significant environmental effects or a substantial increase in the severity of significant environmental effects already identified in the APP EIR. No substantial changes in noise levels, air quality, traffic, or other conditions have occurred within and around the project site since certification of the APP EIR, as supported by the analysis in this Addendum and attached memoranda.

3. No new information of substantial importance has been identified, which was not known and could not have been known with the exercise of reasonable diligence at the time the APP EIR was certified that is expected to result in new significant environmental effects or a substantial increase in the severity of environmental effects identified in the prior CEQA documents. As discussed in this Addendum, the project would not have new significant effects or significant effects that are substantially more severe. Additionally, no new information of substantial importance has been identified that would make feasible those mitigation measures or alternatives previously determined not to be feasible and would substantially reduce one or more significant effect on the environment, or that mitigation measures or alternatives considerably different from those analyzed in the APP EIR would substantially reduce one or more significant effect on the environment.

PROJECT DESCRIPTION

The City of Alameda (the City) proposes the Seaplane Lagoon Ferry Terminal of the APP (proposed project) for the construction of a new ferry terminal to expand ferry service between Alameda and San Francisco. The proposed Seaplane Lagoon Ferry Terminal would serve the anticipated increase in demand for ferry service from planned development under the APP and Alameda/Oakland in general and would augment the existing ferry service at the Main Street Ferry Terminal in Alameda, which has limited capacity for increased ridership.[9] The ferry service at both the proposed Seaplane Lagoon Ferry Terminal and the Main Street Ferry Terminal would be collectively referred to as the "western Alameda ferry service."

The City is working in partnership with the San Francisco Bay Area WETA to provide ferry service at Seaplane Lagoon. A Draft Seaplane Lagoon Ferry Terminal Service Memorandum of Understanding (MOU), establishing basic principles and a framework for developing a future Seaplane Lagoon Ferry Terminal and new ferry service, was developed by the City and WETA in 2015[10] and is discussed below. The MOU outlines party responsibilities and general assumptions for the service plan, funding, landside and waterside components, and permitting considerations for the project. The City is also collaborating with Alameda Point Partners, the master developer of Site A at Alameda Point, to obtain other agency permits, as well as for the construction of the Seaplane Lagoon Ferry Terminal.

The construction and operation of the Seaplane Lagoon Ferry Terminal and associated access improvements and parking facility are addressed in this Addendum.

Background

This section describes the MOU between WETA and the City pertaining to the project.

WETA Memorandum of Understanding

On June 4, 2015, the WETA Board of Directors adopted a system expansion policy to serve as a framework for evaluating the feasibility of new ferry projects in San Francisco Bay. This policy addresses the development of future ferry service at Seaplane Lagoon. As explained above, the City and WETA proposed to enter into a MOU for the project based on this framework.

As described in the draft MOU, the Seaplane Lagoon Ferry Terminal would enhance ferry service between the western portion of Alameda and San Francisco, which is currently served by the Alameda/Oakland Ferry Service at the Main Street Ferry Terminal in Alameda. The existing service at the Main Street Ferry Terminal has limited capacity to accommodate the increase in commute-period ridership that is anticipated from the development of the APP as well as the Alameda/Oakland area in general. This increased demand would be accommodated by the project, which involves construction of a new ferry terminal on the eastern shore of Seaplane

[9] Seaplane Lagoon Ferry Service Project Draft Memorandum of Understanding between City of Alameda and WETA, 2016.

[10] Seaplane Lagoon Ferry Service Project Draft Memorandum of Understanding between City of Alameda and WETA, 2016.

Lagoon, as well as continuing service at the existing Main Street Ferry Terminal. WETA and the City intend to establish a commute-oriented ferry service between Seaplane Lagoon and San Francisco once operating funds and terminal and vessel assets are secured to operate the expansion service.

Project Benefits

Ferry service at Seaplane Lagoon would support the City and WETA in (1) providing transit options for the population and employment planned with the development of the APP, including Site A; (2) reducing traffic congestion in the San Francisco Bay Area; and (3) providing emergency response and recovery services in the event of transbay service disruptions to roads, bridges, tunnels, and transit.

Transit Options in Support of the Alameda Point Project and Relief of Congestion

Expanding ferry service, in addition to other public transit and pedestrian/biking alternatives, is a key component of the Alameda Point Transportation Demand Management Plan and the Alameda Point Town Center and Waterfront Precise Plan as part of an overall strategy for reducing traffic congestion in Alameda. The proposed addition of a second ferry terminal in western Alameda would help reduce traffic congestion both by expanding transit options as an alternative to vehicular trips and by dispersing vehicular trips to access ferry transit between two western Alameda ferry terminal locations.

The Main Street Ferry Terminal provides service to/from San Francisco and the Peninsula. Peak-time ferry service demand at this terminal is reaching capacity, with overall ridership rising 14 percent per year from July 2012 to July 2015.[11] Ferry ridership is anticipated to continue increasing annually throughout the San Francisco Bay Area, including at the Main Street Ferry Terminal. Existing demand, current trends in ridership demand, and future projections all indicate the need for expanded ferry service to/from Alameda. The project would help to alleviate the high level of demand at the Main Street Ferry Terminal by offering additional ferry service to/from San Francisco at a location convenient to the APP.

Emergency Operation following Disaster and Sudden Disruptions in Transbay Service

Ferry service provides an alternative form of transit that can operate even if a natural or man-made event disables roads, other transit, bridges, and/or tunnels. In 2007, the California Legislature passed Senate Bill 976 (SB 976), which created WETA as the successor to the Water Transit Authority. This legislation puts emergency preparation and coordinated-response readiness on a par with regionalized water transportation.[12] Given the San Francisco Bay Area's susceptibility to earthquakes and its proximity to water, water transit provides a viable alternative to landside transportation options.

[11] Water Emergency Transportation Authority (WETA), 2016. Short Range Transit Plan, FY 2015-16 to FY 2024-25. January.

[12] San Francisco Bay Area Water Transit Authority, 2009. *Emergency Water Transportation System Management Plan,* June.

In the event of a natural disaster or disruptive regional event, WETA ferries may be called upon by the California Office of Emergency Services (Cal OES) to provide service from the Seaplane Lagoon Ferry Terminal for both emergency response and recovery after the event. In the immediate aftermath of an event, Cal OES would determine how to allocate regional transportation resources, including ferries. In the weeks and months following an event, as the San Francisco Bay Area recovered, ferry service would play a critical role as a component of the regional transit network that could be quickly operationalized at terminals. The Seaplane Lagoon Ferry Terminal would be an asset in this emergency network.

Project Location

Seaplane Lagoon is within Alameda Point on the former Alameda Point Naval Air Station, at the western end of Alameda Island, in the City of Alameda, California (Figure 1). The project would be located along the eastern shoreline of Seaplane Lagoon, west of Ferry Point, south of West Atlantic Avenue, and north of West Oriskany Avenue and existing Buildings 15 and 64 (Figure 2). Pacific Avenue—a new roadway proposed in the Alameda Point Town Center and Waterfront Precise Plan—would intersect with Ferry Point at the location of the Seaplane Lagoon Ferry Terminal.

The project site is accessible from Interstate 880, which is approximately 2.5 miles to the north. Regional access to Alameda Point is via State Route 260 through the Webster-Posey Tube, connecting the island of Alameda and the City of Oakland, which is approximately 2 miles to the northeast. Main Street provides the primary access to the APP area, including to the project site. The Main Street Ferry Terminal is located approximately 1 mile north of the project site in Alameda.

Existing Conditions

This section describes the existing conditions at the project site and the existing WETA ferry service to western Alameda.

Site Conditions

Seaplane Lagoon is a rectangular basin approximately 3,000 feet by 1,600 feet. Breakwaters protect the basin from wind-generated waves, providing typically calm conditions. The lagoon is bordered by a concrete and steel sheet pile bulkhead to the north, rock slope revetments to the east and west, and a breakwater with a 600-foot opening to the south. Four seaplane ramps equally spaced along the north bulkhead of the basin extend down into the water of the lagoon.

The area surrounding Seaplane Lagoon consists of developed land, primarily featuring a large paved area immediately to the north, paved and vegetated areas to the west (which were formerly part of an aircraft landing area), and industrial and former military structures to the east. As shown in Figure 2, existing land uses within the project area and vicinity include warehouses and other light industrial uses. The landside portion of the project area includes Ferry Point roadway, a concrete sidewalk on the eastern side of the roadway, and both paved and unpaved areas. Several one- and two-story industrial buildings lie to the east of the project

Not to scale

Legend

- Proposed Project Area
- Proposed Seaplane Lagoon Ferry Terminal
- Alameda Point Sites A and B
- Existing Main Street Ferry Terminal

N

Source: Google Earth, 2015, Town Center Plan, 2014

Figure 1
Seaplane Lagoon Ferry Terminal CEQA Analysis
Project Vicinity

Not to scale

Note: Numbers on building indicate building number, consistent with the APP EIR.

Legend

- Project Site
- Temporary Work Area
- Site A Development

N

Source: Google Earth, 2015, Moffatt & Nichol, 2016

Figure 2
Seaplane Lagoon Ferry Terminal CEQA Analysis
Project Area

area. A vacant lot is located to the east of the proposed Seaplane Lagoon Ferry Terminal. This lot is partially enclosed with a fence and contains a building foundation.

A deteriorating wooden pier structure exists on the eastern shoreline of Seaplane Lagoon, north of the proposed ferry terminal. This structure extends approximately 175 feet from the shoreline and has a 12-foot-wide walkway that extends to a partially collapsed circular deck with an approximately 35-foot radius.

South of the lagoon along the eastern edge of Alameda Point are several decommissioned naval vessels, including the USS Hornet, which has been converted into a museum. Two buildings are located on the southeast corner of Seaplane Lagoon: Building 15, which is used for office/commercial uses, and Building 64, which is vacant.

Ferry Point roadway consists of two travel lanes, one in each direction: a 12-foot-wide concrete sidewalk on the inland (eastern) side of the road and an asphalt parking area along the waterfront. From the western edge of the asphalt, the ground slopes downward to the water. The slope has been treated with erosion control revetment, which consists of crushed rock (riprap). Water depths in Seaplane Lagoon generally range from 13 to 20 feet Mean Lower Low Water (MLLW). In the vicinity of the proposed ferry terminal, water depths are approximately 10 feet MLLW at about 100 feet from the eastern shoreline, and approximately 13 to 14 feet MLLW at about 200 feet from the shoreline.

WETA Ferry Service to Western Alameda

Alameda is currently served by WETA ferry routes at the Main Street Ferry Terminal on Alameda Point and the Harbor Bay Terminal on Bay Farm Island. Ferry service to western Alameda is provided at the Main Street Ferry Terminal, at 2990 Main Street, which has the following routes/services: weekday and weekend service to the San Francisco Ferry Terminal, San Francisco Pier 41, and Oakland Jack London Square Terminal; weekday commute service to South San Francisco; and seasonal service to AT&T Park for San Francisco Giants baseball games and other select events.

The morning Alameda/Oakland route originates at the Oakland Jack London Square Terminal and stops at the Main Street Ferry Terminal before arriving at the San Francisco Ferry Terminal; some of these trips continue on to San Francisco Pier 41. Morning return service from San Francisco mostly originates at the Ferry Building with stops in Oakland before arriving in Alameda in the morning (some trips originate at Pier 41). In the afternoon, service originates in Alameda and stops in Oakland before arriving in San Francisco. Afternoon return service from San Francisco stops in Alameda before arriving in Oakland. The commute time from Alameda to San Francisco is approximately 20 minutes, and the commute time from San Francisco to Alameda is approximately 45 minutes; service is provided during weekday commute and midday periods, as well as on weekends.

During peak operating periods, the Alameda/Oakland route is provided by the concurrent operation of two vessels. Approximately 800 parking spaces are available for ferry patrons at or in close proximity to the Main Street Ferry Terminal.

Project Components

As described in the Alameda Point Town Center and Waterfront Precise Plan and in Chapter 3, Project Description, of the APP EIR, Seaplane Lagoon is the "centerpiece" of Alameda Point and Ralph Appezzato Memorial Parkway is the "gateway" to the Town Center and Waterfront Sub-District and Alameda Point. In addition to the existing uses, Seaplane Lagoon is identified in the Alameda Point Town Center and Waterfront Precise Plan for new maritime uses, including ferry services; the plan intends for the future ferry terminal to provide service that connects the APP to San Francisco.

The City of Alameda, in cooperation with WETA, proposes to construct a new ferry terminal along the eastern edge of Seaplane Lagoon. The proposed Seaplane Lagoon Ferry Terminal project would consist of the following waterside elements:

- Ferry terminal, that includes an abutment and pier, gangway, boarding float, and a canopy that runs the length of the pier;
- Shoreline repairs, including installation of soil cement columns;
- A ferry vessel; and
- Demolition of an existing pier.

The abutment and pier at the entrance to the Seaplane Lagoon Ferry Terminal would provide secure entry from land to a pedestrian gangway. The gangway would connect the pier to the boarding float and the length of the gangway would be determined by tides. A boarding float, which would be held in position by pipe guide piles and fender piles, would provide access to the ferry vessel. Shoreline repairs would be constructed to stabilize the soils in the vicinity of the abutment. Figure 3 shows the components of the proposed Seaplane Lagoon Ferry Terminal.

In addition to the waterside elements described above, the project includes landside access improvements that would create pedestrian, bicycle, transit, and vehicle connections with each phase of the Site A development. For Phase 1, landside improvements include:

- A 400-space parking lot;
- Repaving of the Ferry Point roadway (at existing grade);
- Painting and re-striping the roadway for transit, bicycle, and pedestrian circulation to/from the ferry terminal and for a promenade area;
- Stormwater improvements;
- Seating and tree boxes; and
- A bus stop.

Future phases of Alameda Point, such as Site B, would implement permanent landside public access improvements consistent with the Alameda Point Town Center and Waterfront Precise

Plan and Master Infrastructure Plan. These projects would undergo separate, project-specific CEQA review.

Public access improvements include new roadway access to the terminal, a new 400-space parking lot, a bus stop, a pedestrian pathway, a bicycle cycle track,[13] and bicycle parking. These facilities are described in the Access and Parking Facilities section, below, and shown in Figure 4. The project would comply with Americans with Disabilities Act (ADA) standards.

Ferry service to western Alameda would be expanded to Seaplane Lagoon while maintaining the existing Main Street Ferry Terminal service. The new ferry service to Seaplane Lagoon would be a commute-oriented route between Seaplane Lagoon and San Francisco – with three AM peak period departures to San Francisco and two return trips to Seaplane Lagoon, and three PM peak period departures to Seaplane Lagoon and two return trips to San Francisco. The proposed Seaplane Lagoon Ferry Terminal would be designed as an unstaffed facility with a security gate at the end of the pier by the gangway, and would be open only when a vessel is at the terminal, generally for 5 to 10 minutes. The boat captain would dock and tie up the ferry to the float. The ferry operator would then unlock and open the gate for passenger entry/egress. The facility would be designed as an essential facility, which would be operational after an earthquake.

Ferry service from Seaplane Lagoon would be initiated once operating funds and terminal and vessel assets are secured to operate the service. In addition, the existing levels of service and current amenities, including both the quantity and location of on-street and off-street parking facilities, would be maintained at the Main Street Ferry Terminal.

Access and Parking Facilities

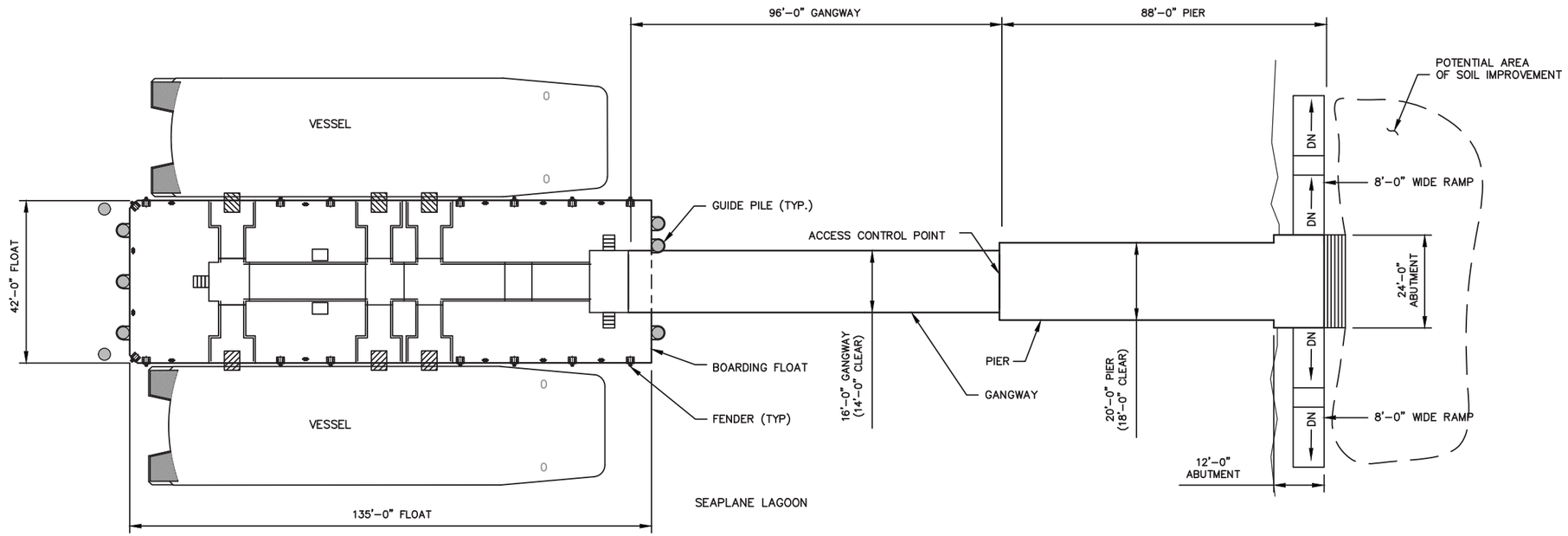
Access and parking improvements would include new paving for bicycle, pedestrian, transit, and vehicular circulation and the installation of a 400-space parking facility. Parking would be within ¼ mile of the access control gates, with priority given to ferry patrons accessing the terminal during weekday commute periods. Proposed landside improvements, including a circulation framework, are shown in Figure 4.

Roadway, Bicycle, and Pedestrian Improvements

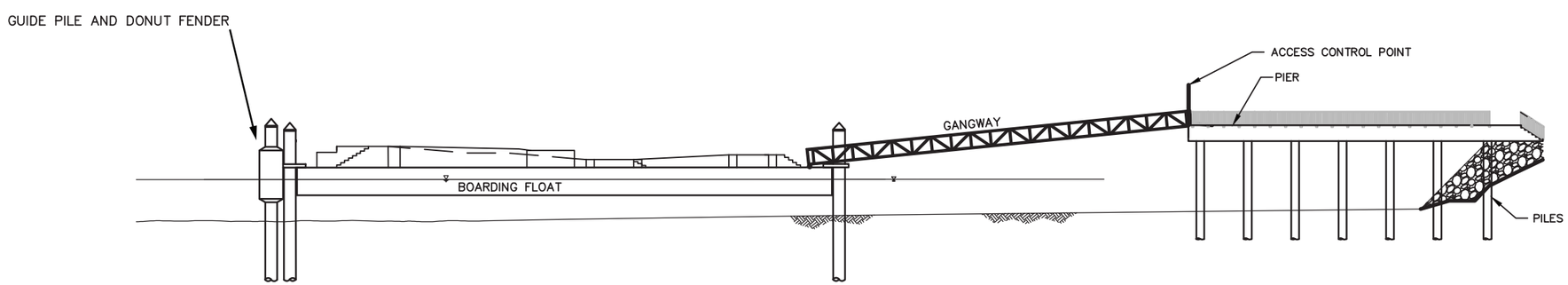
In the vicinity of the proposed ferry terminal, Ferry Point would remain a two-lane road (one lane each direction), but would be reconfigured with a sidewalk, bicycle cycle track, and pedestrian plaza/promenade along the waterfront. Site circulation and access is shown on Figure 5.

Ferry Point would be reconfigured from just north of West Oriskany Avenue to just south of West Atlantic Avenue, and would connect to the reconfigured Ferry Point that would be constructed for Site A. The roadway would be 22 feet wide with one lane in each direction.

[13] A cycle track is an exclusive bicycle facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bicycle lane. A cycle track is physically separated from motor traffic and distinct from the sidewalk.



TERMINAL PLAN

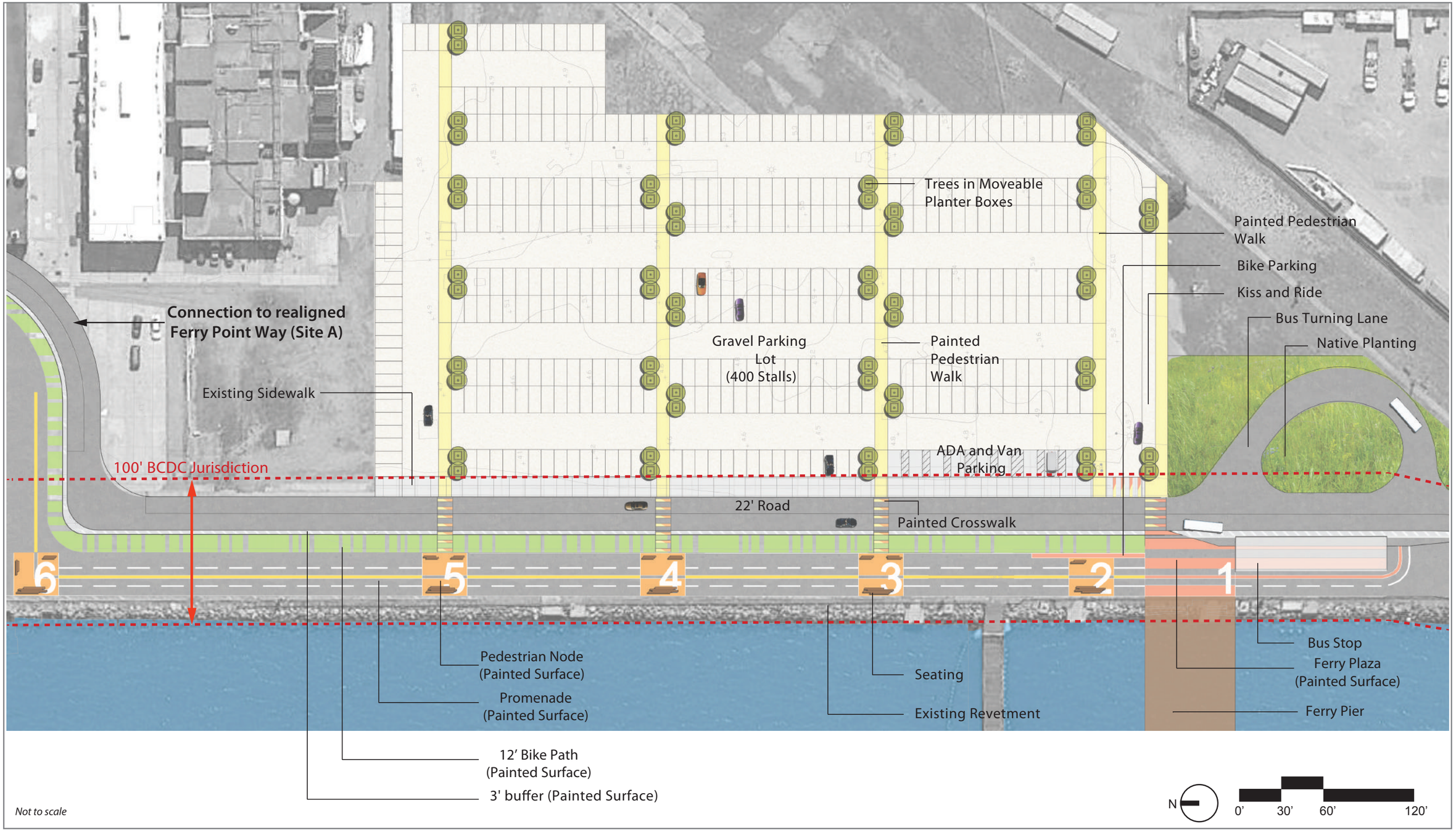


TERMINAL ELEVATION

Not to scale

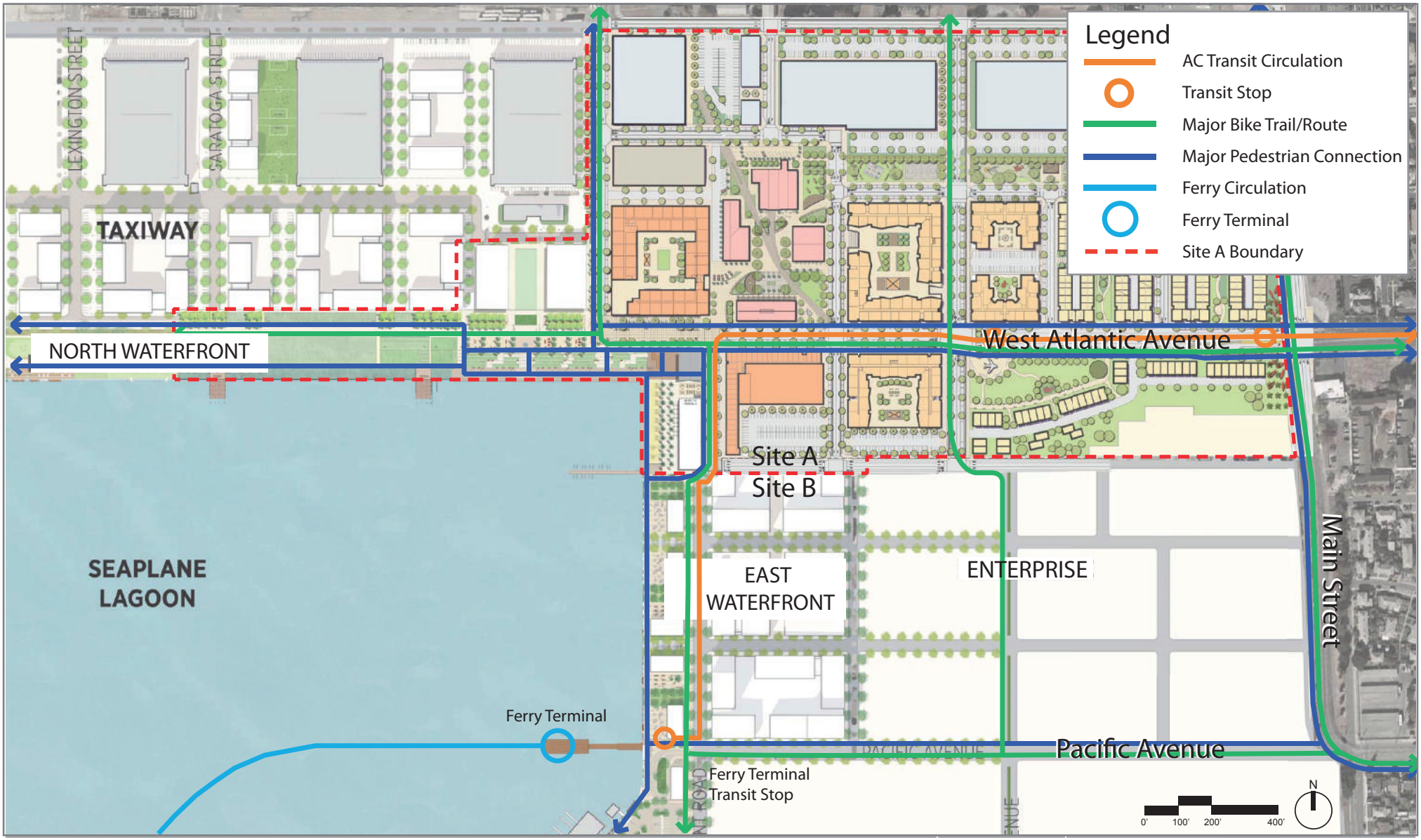
Source: Moffatt & Nichol, 2016

Figure 3
Seaplane Lagoon Ferry Terminal CEQA Analysis
Ferry Terminal Conceptual Design



Source: April Philips Design Works, 2016

Figure 4
Seaplane Lagoon Ferry Terminal CEQA Analysis
Landside Improvements Conceptual Design



Source: April Philips Design Works, 2016

Figure 5
Seaplane Lagoon Ferry Terminal CEQA Analysis
Site A and Precise Plan Circulation

Except for the connection to the realigned Ferry Point in Site A, the existing alignment of Ferry Point would not change.

Bicycle amenities would include a two-way cycle track along Ferry Point, with a 3-foot buffer separating the roadway from the cycle track, and bicycle parking immediately north of the new ferry terminal. Along the waterfront, a 29-foot pedestrian promenade would be designated and a 12-foot sidewalk would be constructed inland.

As described in and shown on Figure 3-7 of the APP EIR, under the Alameda Point Town Center and Waterfront Precise Plan and as part of the Site B development, Pacific Avenue would be extended west through vacant property and connect with the existing Ferry Point, intersecting near the proposed ferry terminal location. In addition, development under the Alameda Point Town Center and Waterfront Precise Plan would expand access to the shoreline, including the extension of the Bay Trail along the shoreline in the vicinity of the proposed Seaplane Lagoon Ferry Terminal.

Transit services would access Alameda Point via Ralph Appezzato Memorial Parkway, Stargell Avenue, Pacific Avenue, and/or the future Mitchell Extension. The circulation framework would provide convenient transit, automobile, bicycle, and pedestrian connections to the existing Main Street Ferry Terminal and the planned Seaplane Lagoon Ferry Terminal. When ferry service is initiated at Seaplane Lagoon, the planned terminal would serve as a multi-modal transportation hub possibly located at the foot of West Atlantic Avenue. The Seaplane Lagoon Ferry Terminal would connect ferries, AC Transit buses, and shuttle services with transit riders arriving by bicycle, by foot, or dropped off by automobile. In the interim, depending on the location, rate, and type of the initial development in Alameda Point, a smaller multi-modal transfer point may be located on the existing AC Transit Line 31 route within walking distance of the areas with the greatest concentration of development.

Transit Facilities

Transit service would connect the proposed Seaplane Lagoon Ferry Terminal to Alameda Point, and a transit drop-off and bus turnaround would be constructed just south of the terminal. Transit service is planned to begin with the start of ferry service. To maximize ferry ridership, the transit service would be timed with ferry service departures and arrivals, and a transit service to/from San Francisco would be provided on days of restricted ferry operation due to weather.

Parking Facilities

An asphalt surface parking lot would be constructed on the existing vacant lot located across Ferry Point from the proposed Seaplane Lagoon Ferry Terminal. This parking lot would have approximately 400 parking spaces and would include drop-off at its southern end, immediately across Ferry Point from the terminal. The parking lot would be accessible from four pedestrian crosswalks connecting the parking area to the promenade.

Landside Utilities

Utilities for landside improvements would include electrical service for the roadway and parking lighting. In addition, new storm drains would be installed in the paved area of the temporary parking lot, the bus turnaround area, and the temporary bus stop. Storm drains from parking areas and the bus stop would drain into the stormwater management area that is proposed within the bus turnaround island.

Ferry Terminal Improvements

The Seaplane Lagoon Ferry Terminal would consist of a pier that extends into the water, a gangway from the end of the pier down to a float, and a float that provides access to the vessel. The pier would extend to a distance that, when combined with the gangway, located the float at sufficient water depth for the vessel. The landside end of the gangway would be supported at the pier end, and the waterside end would be supported on the float. The float end of the gangway would have wheels to allow backward and forward movement of the float. The pier end of the gangway would be designed to allow movement of the float in the lateral direction. Guide piles would hold the float in position. The guide piles would be attached to the float by collars that allow the float to move up and down with the tide. "Donut fenders" (fenders that slide up and down a vertical pile at the rear of the float) could be used for additional protection.

The pier and gangway would provide the necessary distance from shore to allow the ferry to dock at sufficient water depth for navigation. At the proposed Seaplane Lagoon Ferry Terminal location, there is sufficient depth for terminal operations and no dredging would be required for construction or operations of the ferry.

Shoreline improvements in the form of soil stabilization (in the event of liquefaction during a seismic event) would be required for the project. Ramps would be required to accommodate the change in height from the pier and the landside ground elevation.

These project elements are described further below, and the in-water project elements are listed in Table 2.

Shoreline Stabilization and Ramps

Shoreline stabilization would be required for the project because the landside area in the vicinity of the abutment has liquefiable soils. To reduce the potential for liquefaction during a seismic event, soil improvements would be implemented. One such improvement—soil-cement mixing—would involve auguring into the soil and injecting a cementitious grout material.

Due to the proposed elevation of the pier, which would be approximately 3 feet above the existing landside grade, two ramps would be constructed to facilitate access to/from the Seaplane Lagoon Ferry Terminal. The ramps would be constructed of fill material. The ramps would be constructed on the existing shoreline revetment and over appropriate sub-base material, and would be parallel to the roadway for passengers approaching the terminal from the south and north. The ramps would have a slope in accordance with ADA guidelines. There would also be a stairway for passengers approaching from the east.

TABLE 2 IN-WATER PROJECT ACTIVITIES

Project Component	Feature/Dimensions	Area
Demolition		
Wood pier	• Approximately 175 feet long by 12 feet wide partially collapsed circular deck with approximately 35-foot radius • Piles: 12-inch-diameter timber piles (28 piles)	2,914–3,800 square feet (approx.)
Construction		
Abutment (including landside ramps)	• Concrete deck: 88 feet long by 20 feet wide • Piles: 24-inch- diameter steel piles (8 piles)	72 square feet
Pier	• Concrete deck: 88 feet long by 20 feet wide • Piles: 24-inch- diameter steel piles (14 piles) • Canopy: (optional) • Dimensions to match Pier (88 feet long by 20 feet wide; approximate height of 1 feet above pier deck)	1,760 square feet
Gangway	• Steel: 96 feet long by 16 feet wide	1,536 square feet
Boarding Float (including walking decks)	• Steel pontoon: 135 feet long by 42 feet wide by 8 feet deep • Piles: 36-inch-diameter steel guide piles (six piles) • 54-inch-diameter steel fender piles (two piles)	5,670 square feet

Source: Moffatt & Nichol, 2016.

Abutment and Pier

A pier and abutment are required at the entrance to the terminal to provide secure and safe entry from the land to the passenger access gangway. The pier would extend out from the abutment to provide sufficient depth for the ferry vessels and float.

The abutment would be located on the shoreline and would consist of a concrete abutment (24 feet long by 3 feet wide) supported on eight 24-inch-diameter steel piles.

The pier would consist of a cast-in-place concrete structure (88 feet long by 20 feet wide) supported on fourteen 24-inch-diameter steel piles with perimeter guardrail. The finished deck surface would have an elevation of +13 feet NAVD88.[14] The pier could be covered by a canopy similar to those on other WETA terminals in the San Francisco Bay Area. Dimensions would match the pier (88 feet long by 20 feet wide, with an approximate height of 12 feet above pier deck).

The pier would serve as a passenger waiting area, and could include benches and educational interpretive signs to enhance the waiting area for ferry passengers. A security gate at the west

[14] The North American Vertical Datum of 1988 (NAVD88) is the vertical control datum of orthometric height established for vertical control surveying in the United States of America based upon the General Adjustment of the North American Datum of 1988.

end of the pier would regulate access to the gangway. Ticketing facilities would be provided on the vessels; a commuter Clipper Card reader could also be installed on the pier (beyond the security gate).

Gangway

A gangway would connect the pier to the boarding float. The steel gangway (96 feet long by 16 feet wide) would be supported on the landside end of the pier by cantilevered seat supports, and the waterside end of the gangway would be supported by boarding float. On the float, the gangway would be fitted with wheels to permit relative movement for tides and float motion. Finished walking surface elevation would range from +13 feet NAVD88 at the pier to approximately 8.5 feet above the water surface on the boarding float. On the float, the gangway would be fitted with wheels to permit relative movement for tides and float motion. An architectural canopy/windscreen may be installed to cover the gangway. Dimensions would match those of the gangway at 96 feet long by 16 feet wide, with an approximate height of 12 feet above the gangway.

Boarding Float

The Seaplane Lagoon Ferry Terminal would include a boarding float where passengers would board and disembark from the ferry. The float structure would be a steel pontoon barge (135 feet long by 42 feet wide by 8 feet deep) with internal compartments. Fenders and mooring cleats would be located around the perimeter of the float to accommodate vessel berthing scenarios. The float would be held in position with an arrangement of six 36-inch-diameter steel guide piles and two 54-inch-diameter steel fender piles, totaling eight piles. The fender piles would provide protection to both the float and the vessel should the ferry have navigational problems. The float would be placed in a minimum water depth relative to the lowest observed tide. The float could be covered by a canopy/windscreen. Dimension would match boarding float walkways (covering an area approximately 120 feet long by 30 feet wide and an approximate height of 22 feet above the float deck).

Waterside Utilities

The Seaplane Lagoon Ferry Terminal would require electrical and mechanical utilities. Electrical service would be provided by Alameda Municipal Power and water would be provided by East Bay Municipal Utility District. Required communication lines would be installed concurrently with other utilities. An emergency generator would also be required.

The terminal would be designed to minimize artificial lighting over the water. Lighting would also be required on the pier, gangway, and float. Lighting would include a system for safe operations (loading and unloading of passengers) during non-daylight conditions and security lighting during non-operating hours. Navigation lights would be included; these lights are typically mounted on top of fenders, emit a blue light, and are solar powered.

Water would be required for wash-down purposes on the float, gangway, and pier. No fire water is expected to be required on the float, but could be required on the pier subject to the local Fire Marshall.

Operations

This section describes operation of the project, including the vessel characteristics, navigation, and berthing, projected ferry ridership, and security and maintenance.

Proposed Ferry Service and Ridership

The project would expand ferry service to western Alameda by constructing a new terminal at Seaplane Lagoon while maintaining the existing Main Street Ferry Terminal service. The new route would be commute-oriented, with approximately 20 minute service between Seaplane Lagoon and San Francisco. The new service would have three AM peak period departures to San Francisco and two return trips to Seaplane Lagoon (6:00 to 9:00 a.m.), and three PM peak period departures to Seaplane Lagoon and two return trips to San Francisco (4:00 to 8:00 p.m.). Service would operate approximately 253 days a year. One primary and one spare vessel would be dedicated to service at the Seaplane Lagoon Ferry Terminal.

Service for special events could be provided subject to WETA's board policy for special event service cost recovery; however, due to dock capacity constraints at AT&T Park, it is not anticipated that AT&T baseball game service would be provided from the Seaplane Lagoon Ferry Terminal. The fares for the proposed Seaplane Lagoon service would be the same as those approved for the Alameda/Oakland Ferry Service in the FY2015-FY2020 Fare Program adopted by the WETA Board. It is anticipated that the WETA Board would adopt a new 5-year fare program in Fiscal Year 2020 that would set fare rates for the period FY2021 – FY2026.

As described in Attachment B, the weekday ridership for the proposed ferry service at Seaplane Lagoon terminal is estimated to be 351 peak-period riders when the ferry terminal opens in 2020, and is projected to increase to an estimated 987 peak-period riders in 2025.[15] Of the projected passengers, 10 percent are assumed to be reverse commute passengers traveling from San Francisco to Alameda in the AM and from Alameda to San Francisco in the PM. This estimate is based on the increase in employment that would occur under the APP project, which would generate approximately 8,900 new jobs on Alameda Point.

Vessel Characteristics, Navigation, and Berthing

The vessel used for operations at the Seaplane Lagoon Ferry Terminal would be similar to the future vessels currently under construction (209 tons, 135 feet long). The top speed of these vessels is approximately 27 knots per hour, and their maximum capacity is 400 passengers. These vessels have propulsion engines, which use diesel fuel, and the vessel engines are Tier 3 with Selective Catalytic Reduction (SCR), which results in an emissions reduction equivalent to Tier 4 engines. Passenger walkways and ramps are approximately 5 to 8 feet above the water. These vessels typically require a 270-foot-diameter turning area, which would be provided west

[15] Kittelson & Associates, Inc., 2016. *Technical Memorandum; Alameda Point Seaplane Lagoon Ferry Terminal*. March 17.

[16] Opening year is assumed to be WETA's 2020/2021 fiscal year commencing in 2020 and is shown in their ridership forecast as year 2021.

of the terminal. Vessel fueling and sewage outflow procedures would take place at WETA's proposed Central Bay Operations and Maintenance Facility.

The distance from the proposed ferry terminal to the San Francisco Ferry Terminal is approximately 4.73 nautical miles and requires an average transit time of 20 minutes, not including mooring, passenger boarding, or disembarking.

The proposed ferry route would travel through established navigation channels within the San Francisco Bay. When departing Seaplane Lagoon, the ferry vessel would turn west upon reaching the southern end of the Lagoon and would then travel northwest towards San Francisco before turning west upon reaching the San Francisco Ferry Terminal. The service route would be reversed in the opposite direction but would remain essentially the same, with slight modifications for currents and other navigational constraints.

Security and Maintenance

The proposed terminal would be designed as an unstaffed facility with a security gate at the end of the pier by the gangway and would be open only when a vessel is at the terminal, generally for 5–10 minutes. The boat captain would dock and tie up the ferry to the float. The ferry operator would then unlock and open the gate for passenger entry and departures. Lighting would be installed for passenger safety during early morning and late evening departures and arrivals, as well as for property protection.

WETA would be responsible for operating waterside facilities through either transfer of ownership or long-term lease, and the City would be responsible for landside facilities.

Construction

This section describes the anticipated construction schedule and construction methods for the project.

Construction Schedule

Project construction is expected to begin in 2019 and be completed within approximately 1 year. Construction would occur during weekdays and on weekends if needed. Table 3, below, shows the phases of the project with approximate durations.

Site preparation and ground improvements would occur over 1 month, and could overlap with in-water work. Construction of landside improvements would require approximately 1½–2 months. In-water work (demolition/removal of existing pier and installation of proposed terminal) would be completed over approximately 12 months.

For the ferry terminal, fabrication of the float and gangway would be completed off-site. The pier and abutment would be completed before the arrival of the float and gangway. With the pier completed, the float would be brought in and located in position. This would involve installing the guide piles for the float, and most likely the fender piles at the end of the float, because the installation equipment would be at the site. Once the float is in position, the

TABLE 3 PROJECT CONSTRUCTION PHASES AND DURATIONS

Project Construction Activities	Duration
Pier Demolition	2 weeks
Access and Parking Facilities • Grub/clear parking lot and pathway and install stormwater controls • Rough grade parking lot, pathway, and bus turn lane • Install rock base for parking lot, pathway, and bus turn lane • Apply temporary striping/surface painting of parking lot, roadway, cycle track, promenade, and bus turn lane (2 working days)	1.5–2 months (concurrent with other phases)
Ferry Terminal Improvements	12 months
Fabricate Float and Gangway	12 months (concurrent with other phases)
Riprap Removal	0.5 month
Soil Improvements	0.5 month
Abutment	1 month
Pier	3 months
Float Piles	1 month
Float and Gangway Setting	0.5 month
Utilities	1 month
Closeout	1 month

Source: Moffatt & Nichol, 2016; Alameda Point Partners, 2016.

gangway would be placed using a barge crane. Utilities would then be connected. All of the in-water work (float installation with piles and gangway) could be completed within one environmental work season (June 1 to November 30).

Construction Methods

Demolition

Demolition activities for the project would include demolition of the existing (deteriorating) wooden pier and the existing structure located on the area where the parking lot would be constructed, as described below.

The existing timber pier structure, including the existing handrail, timber deck, timber stringers, and fencing, would be demolished and removed from the lagoon. All debris would be off-hauled, processed, and properly disposed of. The piles would be pulled and removed to the mudline. Timber piles that have been treated with creosote, or that contain other potentially hazardous materials, would be handled properly and disposed of at a facility permitted to handle hazardous waste. The on-shore concrete abutments would remain. The seafloor in the area of the pier would be swept to remove and dispose of debris.

To construct the interim parking lot, demolition of one existing structure would be necessary.

Access and Parking Facilities Construction

Landside construction activities for the ferry terminal access and parking facilities involve site preparation, including minor demolition; rough grading of the parking lot, pathway, and bus turnaround; installation of the rock base for the parking lot, pathway, and bus turnaround; surface painting of the parking lot and roadway bicycle cycle track; and promenade striping. Minor excavation would be required to install the underground utilities and stormwater controls. Construction equipment would include excavators, compactors, graders, pickup trucks, concrete trucks, and dump trucks.

Ferry Terminal Construction

Ferry terminal construction activities include soil improvements and revetment work; construction and installation of the abutment, pier, gangway and float; and utility installation. Construction equipment would include land-based pile driving rig, barge-mounted pile driver with vibratory and impact hammer equipment, flat deck barge and tug boat for pile delivery, work boat and work skiff, concrete transit trucks, concrete pumpers, material delivery trucks, air compressors, generators, backhoes, and dump trucks.

Shoreline Stabilization and Ramps

Approximately 600 square feet (40 linear feet, 15 feet wide) of the existing revetment in the immediate project vicinity would be partially removed to construct the abutment for the pier. After construction of the abutment, the revetment would be redressed with either existing riprap material or new riprap (which would not extend beyond areas currently occupied by riprap). The abutment would be located above the High Water Level relative to MLLW.

Shoreline stabilization is anticipated to involve the installation of soil-cement columns. This process requires auguring into the soil and injecting a cementitious grout material.

Pile Installation

Piles would be installed for the abutment, pier, and float, as shown in Table 2. The piles would be installed to the maximum extent possible with a vibratory hammer. The abutment piles would be installed from the landside, and are expected to require an impact hammer to penetrate the underlying material. The in-water piles would be installed using a pile driver operated from barge-mounted cranes. The barges for this equipment are variable, but would likely be approximately 150 feet long by 40–60 feet wide. The barge would be held in place with anchors and/or barge spuds. Spuds (steel pipe piles affixed to the barge) would be lowered into the lagoon substrata to hold the barge in position during the specific operation. The barge would be moved and positioned with a tugboat. A material barge adjacent to the crane barge would provide the construction materials (such material barges are typically small, about 90–120 feet long by 35–50 feet wide).

Abutment

The eight 24-inch-diameter steel pipe piles would be installed from the landside using a land-based pile driving rig. The pipe piles would be driven with an impact hammer through this material and the abutment formed, reinforcing bars set, and concrete placed over the supporting steel piles. Concrete would also be placed in the interior of the piles. Following construction of the abutment, the slope would be redressed with either new rock or by reuse of the existing rock.

Pier

The pier would be constructed of concrete supported on steel pipe piles. Fourteen 24-inch-diameter steel pipe piles would be required. Although no specific geotechnical parameters or recommendations have been made, installation by vibratory hammer is preferred. Based on existing soil borings near the project site and other pile installations in the area, the substrata would likely require an impact hammer to install the piles; this would be confirmed based on the geotechnical engineer's recommendations once the data are available.

The piles supporting the pier would be installed using a barge-mounted crane. The barges for such equipment vary, but would likely be approximately 150 feet long by 40–60 feet wide. The barge would be held in place with anchors and/or barge spuds. Spuds (steel pipe piles affixed to the barge) would be lowered into the lagoon substrata to hold the barge in position during the specific operation. The barge would be moved and positioned with a tugboat. A material barge adjacent to the crane barge would provide the construction materials (such material barges are typically small, about 90–120 feet long by 35–50 feet wide).

The pier deck would be a cast-in-place concrete structure. After pile installation, formwork would be installed, supported on the piles. After the reinforcing bars are placed, the concrete would be poured using concrete transit trucks. The concrete mix would be pumped from the shore to the pier. Once the concrete has gained adequate strength, the formwork would be removed. At this point, the pier would be ready for installation of the gangway.

Gangway and Float

Both the float and gangway would be of steel construction and would be fabricated at off-site locations. Once completed, the float and gangway would be transported by barge to the ferry terminal site and installed after the pier and float are in place. This installation would require a barge-mounted crane. Fabrication of these two structures would most likely start prior to construction work at the Seaplane Lagoon Ferry Terminal site.

The float would be transported to the site once the other terminal work is ready to receive it. The float could be placed in position and then the guide piles driven through the pile collars. (Some contractors elect to follow the reverse procedure by installing the piles first.) Six 36-inch-diameter steel pipe guide piles would hold the float in position. Installation of these piles would follow the same procedure and involve similar equipment as the piles supporting the pier (i.e. installed using a pile driver operated from barge-mounted cranes).

The fender piles would be installed following the same procedure as the guide piles and involve similar equipment. Once installed, a donut fender would be placed on each pile. The donut fender floats and thus follows the tide, providing protection to the vessel at the appropriate height above the water line.

Waterside Utilities

Utilities service would be located in the street immediately adjacent to the pier. The utility improvements would likely be hard-piped out to the end of the pier for future connection to the gangway. The float would be outfitted with all utilities and fixtures in place. Similarly, the gangway would arrive with the appropriate conduit and pipes for connecting the utilities at the pier end and to the float. Utilities on the pier would be attached after removal of the pier formwork. Connection of the utilities would require flexible lines between the pier and gangway and between the gangway and float.

Construction Access and Staging

It is anticipated that construction vehicles and deliveries would access the site from Interstate 880 via State Route 260 through the Webster-Posey Tube, to Webster Street and Atlantic Avenue. Staging areas would be located as shown on Figure 2.

Required Permits and Approvals

The anticipated consultations, approvals, and permits are listed in Table 4 below.

TABLE 4 ANTICIPATED PERMITS AND APPROVALS

	Project Activity	Type of Permit/Authority
Local Agency		
City of Alameda	Development of new ferry terminal	• Demolition Permit, Design Review, Use Permit, and Building Permits • Approval of long-term lease for construction and operation of new facilities within the city
State and Federal Agencies		
San Francisco Bay Conservation and Development Commission	Development within 100 feet from San Francisco Bay shoreline and placement of fill within San Francisco Bay	• McAteer-Petris Act • Administrative or Major Permit • Federal Consistency Certification, including Design Review
Regional Water Quality Control Board, San Francisco Bay Region	Impacts on waters of the state and stormwater discharge during construction	• Clean Water Act Section 402 • Clean Water Act Section 401 • Water Quality Certification • Porter-Cologne Water Quality Control Act • Waste Discharge Requirements
U.S. Army Corps of Engineers	Discharge of dredged or fill material into wetlands or other waters of the U.S. and placement of structures in navigable waters	• Clean Water Act Section 404 • Rivers and Harbors Act Section 10 • Nationwide Permit (NW6)
U.S. Fish and Wildlife Service	Potential impacts on federally listed species	• Federal Endangered Species Act Section 7 • Biological Opinion
National Marine Fisheries Service	Potential impacts on federally listed marine species and essential fish habitat	• Federal Endangered Species Act Section 7 • Biological Opinion • Magnuson-Stevens Fishery Conservation and Management Act • Essential Fish Habitat Recommendations • Marine Mammal Protection Act
U.S. Environmental Protection Agency	Construction Activities	Review of soil management plan and other work plans, as necessary
Department of Toxic Substances Control	Construction activities	Review of soil management plan and other work plans, as necessary

EVALUATION OF ENVIRONMENTAL EFFECTS

This Addendum compares the potential environmental impacts that may result from implementation of the Seaplane Lagoon Ferry Terminal (proposed project) with the effects previously analyzed in the APP EIR prepared for the APP Development Program. Attachment A contains the MMRP for the Seaplane Lagoon Ferry Terminal and identifies the previously approved mitigation measures from the APP EIR that would apply to construction and operation of the project.

The purpose of the comparison is to determine whether the proposed project's environmental impacts were adequately addressed in the APP EIR, and to determine whether a subsequent or supplemental EIR or negative declaration is required pursuant to CEQA Guidelines Sections 15162 and 15163. The checkboxes in the Addendum indicate whether the proposed project would result in environmental impacts, as described below:

- **Equal or Less Severity of Impact than Previously Identified in the APP EIR** – The severity of the specific impact of the proposed project would be the same as or less than the severity of the specific impact described in the APP EIR.
- **Substantial Increase in Severity of Previously Identified Significant Impact in the APP EIR** – The proposed project's specific impact would be substantially greater than the specific impact described in the APP EIR.
- **New Significant Impact** – The proposed project would result in a new significant impact that was not previously identified in the APP EIR.

Where the severity of the impacts of the proposed project would be the same as or less than the severity of the impacts described in the APP EIR, the checkbox for "Equal or Less Severity of Impact than Previously Identified in APP EIR" is checked. Where the checkbox for either "Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR" or "New Significant Impact" is checked, significant impacts exist that are:

- Due to substantial changes in the project (CEQA Guidelines Section 15162[a][1]);
- Due to substantial changes in circumstances under which the project will be undertaken (CEQA Guidelines Section 15162[a][2]); or
- Due to substantial new information not known at the time the Environmental Impact Report (EIR) was certified (CEQA Guidelines Sections 15162[a][3] and 15183[b][4]).

The Addendum presents the environmental topics addressed in the APP EIR, as follows: land use consistency and compatibility; population and housing; transportation and circulation; cultural and paleontological resources; biological resources; air quality and GHGs; noise; geology, soils, and seismicity; hydrology and water quality; hazards and hazardous materials; aesthetics; public services and recreation; and utilities and service systems.

The first section under each resource topic in the Addendum summarizes the potential environmental impacts that may result from the APP, as evaluated in the APP EIR. The second section describes the proposed project and its consistency with the analysis of impacts in the

APP EIR, and identifies the previously adopted mitigation measures that are applicable to the project.

For the purposes of this Addendum, it is assumed that the proposed project will be required to comply with and implement all applicable mitigation measures identified in the APP EIR and previously adopted by the City, as described in the Addendum and listed in Table 5 below. WETA will continue to implement its adopted mitigation measures, as well as implementing any applicable APP EIR mitigation measures in its role as operator ferry service to the new Seaplane Lagoon Ferry Terminal as described in their letter in Attachment E.

TABLE 5 APPLICABLE MITIGATION MEASURES FROM THE APP EIR

Ferry Terminal Addendum Topic	Applicable APP EIR Mitigation Measures
Land Use Consistency and Compatibility	--
Population and Housing	--
Transportation and Circulation	4.C-1, 4.C-2a through 4.C-2o, 4.C-5a through 4.C-5ziv, 4.C-9
Cultural Resources	4.D-1a, 4.D-2, 4.D-3, 4.D-4, 4.D-5, 4.D-6
Biological Resources	4.E-1a, 4.E-1b, 4.E-1c, 4.E-1d, 4.E-2a, 4.E-2c, 4.E-3a, 4.E-3b, 4.E-3c, 4.E-4a, 4.E-4c, 4.E-4e, 4.E-4f, 4.E-5, 4.E-6, 4.E-7
Air Quality and Greenhouse Gases	4.F-1a, 4.F-1b, 4.F-1c, 4.F-1d, 4.F-2, 4.F-4, 4.F-7a, 4.F-7b, 4.F-8
Noise	4.G-1a, 4.G-1b, 4.G-1c, 4.G-1d, 4.G-2, 4.G-4
Geology, Soils, and Seismicity	4.H-1, 4.H-2, 4.H-4, 4.H-5
Hydrology and Water Quality	4.I-1, 4.I-2, 4.I-8
Hazards and Hazardous Materials	4.J-1a through 4.J-1e, 4.J-2, 4.J-7
Aesthetics	4.K-4
Public Services & Recreation	--
Utilities and Service Systems	4.M-5

ADDENDUM

This Addendum discusses whether the proposed Seaplane Lagoon Ferry Terminal project would create new or substantially more severe significant environmental effects than were analyzed in the APP EIR. Only those environmental topics that could have a potential project-specific environmental impact are discussed below. Topic areas for which the APP EIR found there would be no potential impacts, and for which no impacts would result from the proposed project, have not been included here; these topic areas include agriculture and forest resources and mineral resources. The significance criteria, below, have been consolidated and abbreviated in this Addendum for administrative purposes; a complete list of the significance criteria can be found in the APP EIR.

I. LAND USE CONSISTENCY AND COMPATIBILITY

Would the project:	Equal or Less Severity of Impact than Previously Identified in APP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR	New Significant Impact
a) Physically divide an established community;	■	❒	❒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, specific plans, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or	■	❒	❒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan.	■	❒	❒

Analysis, Findings, and Conclusions of the APP EIR

The APP EIR determined that the APP, including the Seaplane Lagoon Ferry Terminal, would have less-than-significant project-level and cumulative land use impacts caused by the physical division of an established community; conflicts with applicable land use plans, policies, or regulations of an agency with jurisdiction over the project; or conflicts with applicable Habitat Conservation Plans or Natural Community Conservation Plans. Therefore, no mitigation measures related to potential land use impacts were required.

The Alameda Point Town Center and Waterfront Precise Plan (Precise Plan) created seven sub-districts, each of which are subject to form-based development standards, such as permitted building types and heights and orientation and use regulations for the property, including permitted and conditionally permitted uses. The project site is located within Seaplane Lagoon and a portion of the eastern shore of the Lagoon. As described in the Precise Plan and Chapter 3, Project Description, of the APP EIR, Seaplane Lagoon is the “centerpiece” of Alameda Point and is part of the Town Center and Waterfront sub-district. The project is consistent with the City of Alameda General Plan, the Reuse Plan for Alameda Point, the Precise Plan, and the

associated Zoning Ordinance Amendment standards, contributing to the development of this sub-area as a transit-oriented, pedestrian-friendly community.

Proposed Ferry Terminal

According to the APP EIR and the Precise Plan, Seaplane Lagoon would include both existing and new maritime uses, such as the Maritime Administration ready-reserve fleet and USS Hornet Museum; a future ferry terminal with service to San Francisco; a marina; and commercial, recreational, and boating-related uses.

Existing land uses in the project vicinity include warehouse and industrial. The uses on the project site include a road, a sidewalk, an asphalt parking area, and a vacant lot surrounded by fencing. No existing land uses would be displaced by the development of the project.

The project includes the construction of landside improvements to increase access and provide parking facilities for the ferry terminal. These improvements would include roadway access to the terminal, a new parking lot, a bus stop, a bus turnaround, and a pedestrian pathway, a bicycle cycle track, and bicycle parking. The proposed roadway, bicycle path, and pedestrian paths would connect to the circulation network, including Site A, and to San Francisco Bay shoreline access points. Waterside construction for the project would include abutments, a pier, ramps, a gangway, a boarding float, and associated canopies; this infrastructure would connect the waterside uses to the landside circulation network. These improvements would expand access throughout the project area and would be consistent with the approved Precise Plan for the project site.

Conclusions

Based on an examination of the analysis, findings, and conclusions of the APP EIR, and on the discussion above, development of the Seaplane Lagoon Ferry Terminal would not result in new impacts that were not identified in the APP EIR or substantially more severe land use resource impacts than identified in the APP EIR.

II. POPULATION AND HOUSING

Would the project:	Equal or Less Severity of Impact than Previously Identified in APP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR	New Significant Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	■	❒	❒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	■	❒	❒

II. POPULATION AND HOUSING

	Equal or Less Severity of Impact than Previously Identified in APP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR	New Significant Impact
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	■	❒	❒

Analysis, Findings, and Conclusions of the APP EIR

The APP EIR analyzed development of approximately 1,425 new and existing residential units that would accommodate approximately 3,240 persons, and approximately 5.5 million square feet of employment-generating uses in existing and newly constructed buildings, which would generate jobs for approximately 8,900 employees. The APP EIR also analyzed the development of the Seaplane Lagoon Ferry Terminal. The APP EIR determined that the APP, including the Seaplane Lagoon Ferry Terminal, would have less-than-significant project-level and cumulative population and housing impacts related to direct or indirect inducement of substantial population or housing growth; displacement of substantial population or housing; and additional population, housing, or employment growth, or displacement of existing residents or housing units, on a regional level. Therefore, no mitigation measures related to potential population and housing impacts were required.

Proposed Ferry Terminal

Pursuant to the City of Alameda General Plan and Plan Bay Area, Alameda Point is planned for population and housing growth that was analyzed in the APP EIR. The proposed project would not displace any existing housing or people, or induce additional growth than the growth that was analyzed in the APP EIR. By increasing commuter ferry service to Alameda Point, the project would serve the existing and planned needs of Alameda residents and is consistent with Alameda Point's planned transit-oriented design.

Conclusions

Based on an examination of the analysis, findings, and conclusions of the APP EIR, and on the discussion above, development of the Seaplane Lagoon Ferry Terminal would not result in new impacts that were not identified in the APP EIR or substantially more severe significant population or housing impacts than identified in the APP EIR.

III. TRANSPORTATION AND CIRCULATION

Would the project result in:[16]	Equal or Less Severity of Impact than Previously Identified in APP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR	New Significant Impact
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;	■	❒	❒
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 congestion management agency for designated roads or highways;	■	❒	❒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;	■	❒	❒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);	■	❒	❒
e) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities; or	■	❒	❒
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.	■	❒	❒

Analysis, Findings, and Conclusions of the APP EIR

The APP EIR determined that the APP could result in significant project-level and cumulative transportation and circulation impacts at local study locations in the cities of Alameda and Oakland. The APP EIR determined that development facilitated by the APP during construction, including construction of the Seaplane Lagoon Ferry Terminal, would generate temporary increases in traffic volumes on area roadways, resulting in a significant impact. Implementation of **Mitigation Measure 4.C-1** (Construction Management Plan) would reduce this impact to a

[16] The APP EIR also included an analysis of potential transportation and circulation impacts based on criteria recommended by the City of Alameda Transportation Commission, the City of Oakland CEQA thresholds (for intersections in Oakland), Caltrans (for freeway segments and ramps), and the Alameda County Transportation Commission (for Congestion Management Program roadway segments). Although these specific criteria are not listed here, the discussion below reflects the results of this analysis. Please refer to the APP EIR for these specific criteria.

less-than-significant level. The APP, including the Seaplane Lagoon Ferry Terminal, would generate approximately 33,429 daily vehicle trips, about 2,928 weekday morning (AM) peak hour trips, and 3,294 weekday evening (PM) peak hour trips at full buildout. Even with the implementation of **Mitigation Measures 4.C-2a** through **4.C-2o** (TDM Program, Monitoring, and measures to implement physical improvements) and **Mitigation Measures 4.C-5a** through **4.C-5ziv** (TDM Program, Monitoring, Fund Fair Share Contribution to Transportation Improvements, and measures to implement physical improvements),[17] the APP EIR determined that the redevelopment and reuse of Alameda Point Naval Air Station (NAS Alameda) would result in significant and unavoidable project-level and cumulative impacts at local study locations due to an increase in traffic. In addition, project-level and cumulative transportation-related increases in peak hour traffic volumes could potentially result in additional collisions involving pedestrians at the Oakland Chinatown intersections closest to the portals of the Webster and Posey tubes. This impact would be significant and unavoidable, even with implementation of **Mitigation Measure 4.C-9** (Chinatown Pedestrians).

The APP EIR determined that the APP would cause negligible changes in density (vehicles per lane) and a minimal change in level of service on the freeway mainline or freeway ramps under project and/or cumulative conditions. The APP could result in an increase in traffic congestion on local streets that could affect emergency response times; however, in accordance with the existing City requirements, standards, and regulations, all development projects and transportation improvements would be reviewed by local emergency services providers (including police and fire departments) for consistency with their standards and provision of adequate emergency access. Overall, the APP EIR determined that impacts to freeway facilities and emergency vehicle access would be less than significant and no mitigation would be required.

Proposed Ferry Terminal

The APP EIR designated the location for the new ferry terminal within Seaplane Lagoon with future service provided by WETA, and described the new ferry terminal as a "multi-modal transportation hub"– connecting ferry, AC Transit, and shuttle services with transit users and providing for transit users to access the terminal on foot, by bicycle, or by automobile. Under the APP EIR, the new ferry terminal would include a transit drop-off area (co-located with the terminal) and public parking facilities (on- or off-site), and provide for an intermodal transit center. Expanding ferry service, in addition to other public transit and pedestrian/biking alternatives, is a key component of the Alameda Point Transportation Demand Management Plan and the Alameda Point Town Center and Waterfront Precise Plan, providing an overall strategy for reducing traffic congestion in Alameda.

Therefore, development of the Seaplane Lagoon Ferry Terminal would contribute to the impacts for which implementation of the following mitigation measures listed in the APP EIR related to Transportation Demand Management (TDM) were adopted and incorporated into the APP: **Mitigation Measures 4.C-2a through 4.C-2o** (TDM Program, Monitoring, and measures to implement physical improvements), **Mitigation Measures 4.C-5a through 4.C-5ziv (**TDM

[17] See APP EIR for a complete list of these measures.

Program, Monitoring, Fund Fair Share Contribution to Transportation Improvements, and measures to implement physical improvements), and **Mitigation Measure 4.C-9** (Chinatown Pedestrians). Even after the implementation of the above mitigation measures, transportation impacts at study intersections under Existing plus Project as well as Cumulative plus Project conditions would be significant and unavoidable. In addition, **Mitigation Measure 4.C-1** would apply to the project, which specifies that a construction management plan shall be developed prior to the issuance of any permits. These previously adopted mitigation measures would be implemented as part of the proposed project.

Conclusions

Based on an examination of the analysis, findings, and conclusions of the APP EIR, and on the discussion above, development of the Seaplane Lagoon Ferry Terminal would not result in new impacts that were not identified in the APP EIR or substantially more severe significant transportation impacts than identified in the APP EIR.

IV. CULTURAL AND PALEONTOLOGICAL RESOURCES

Would the project:	Equal or Less Severity of Impact than Previously Identified in APP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR	New Significant Impact
a) Cause a substantial adverse change in the significance of a historical resource, as defined in Section 15064.5;	■	❒	❒
b) Cause a substantial adverse change in the significance of a unique archaeological resource, pursuant to Section 15064.5;	■	❒	❒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or	■	❒	❒
d) Disturb any human remains, including those interred outside of formal cemeteries.	■	❒	❒

Analysis, Findings, and Conclusions of the APP EIR

As described in the APP EIR, Alameda Point contains the NAS Alameda Historic District (historic district), which covers approximately 406.5 acres. The historic district contains 100 contributors, including 99 buildings and structures and historic cultural landscape features. Portions of the historic district overlap with the Town Center and Waterfront sub-district; the proposed location of the Seaplane Lagoon Ferry Terminal is located in this sub-district. The APP EIR determined that the APP could result in significant impacts to the historic district, and identified **Mitigation Measure 4.D-1a** (Historic Preservation Ordinance), **Mitigation Measure 4.D-1b** (Guidelines), **Mitigation Measure 4.D-1c** (Removal Mitigation Plans), and **Mitigation Measure 4.D-5** (Implement Mitigation Measure 4.D-1) to reduce significant impacts;

however, even with implementation of these mitigation measures, impacts could remain significant and unavoidable.

The APP EIR further found that no archaeological resources have been recorded on Alameda Point, and that the area has a low potential to contain buried prehistoric or historic-era sites. Additionally, no known fossil sites in the project area were identified, and the underlying geologic units have a low potential to yield significant paleontological resources. There is no indication that the area has been used for burial purposes, and it is unlikely that human remains would be encountered in the project area. The APP EIR found that impacts resulting from inadvertent discovery of archaeological resources, paleontological resources, or human remains would be less than significant with implementation of **Mitigation Measure 4.D-2** (Archaeological Resources), **Mitigation Measure 4.D-3** (Paleontological Resources), **Mitigation Measure 4.D-4** (Human Remains), and **Mitigation Measure 4.D-6** (Implement Mitigation Measures 4.D-2, 4.D-3, and 4.D-4).

Proposed Ferry Terminal

The APP EIR analyzed the potential effects to historic resources resulting from the development of the Seaplane Lagoon Ferry Terminal, which is located in the historic district. The historic district starts at the southern boundary of Seaplane Lagoon and extends north to the original NAS Alameda main gate on the Oakland Inner Harbor. The adjacent areas to the east and west of the lagoon, including the existing industrial buildings, are not part of the historic district. Seaplane Lagoon is designated as a contributing structure within the historic district. Figure 3-4 of the APP EIR indicates that the existing wooden deteriorating fishing pier, which would be removed as part of the project, was not a contributor to the historic district.

The historic landscape is designated as an historic resource that includes Seaplane Lagoon, spans the historic district, and includes character-defining features related to spatial organization: views and vistas, topography, vegetation, circulation, water features, and structures/furnishings/objects. The historic character-defining features of Seaplane Lagoon are its orthogonal shape and bilateral symmetry, its location on the north-south axis that starts at the original entry mall and ends at the lagoon, and the panoramic views southward from north of the lagoon.

The APP EIR addresses the construction of the ferry terminal, ferry services, and other new maritime uses and facilities such as floating docks, piers, and other improvements to support commercial, public, and recreational uses in Seaplane Lagoon. It also addresses improvements to protect the APP from flood hazards and sea level rise. The APP EIR found that these improvements could change the character of Seaplane Lagoon.

Seaplane Lagoon Ferry Terminal would include both waterside and landside project components. Landside improvements such as a new parking lot, bus stop, pedestrian pathway, bicycle cycle track, and bicycle parking would be located outside of the historic district boundaries. Waterside improvements, including abutments, pier, ramps, gangway, boarding float, and associated canopies, would be within the boundaries of the historic district.

Mitigation Measure 4.D-1a would apply to the project. This mitigation measure requires a certificate of approval from the Historical Advisory Board for modifications to contributors and resources within the historic district. It would reduce impacts to the historic district by requiring implantation of and compliance with the City's Historic Preservation Ordinance, which would ensure that the project complies with existing standards and guidelines for historic resources (including the Guide to Preserving the Character of the Naval Air Station Alameda Historic District, the NAS Alameda Cultural Landscape Report, and the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes).

Overall, the project would be consistent with the NAS Cultural Landscape Report[18] as described for the six functional areas below.

- **Spatial Organization.** The character-defining orthogonal layout of Seaplane Lagoon would not be modified by the project. Proposed roads, paths, and sidewalks would be generally consistent with the existing site layout.
- **Views and Vistas.** The project would not obstruct the character-defining views of Seaplane Lagoon. All landscaping would be low-lying and all new construction, including canopies (standard WETA canopies, approximately 12 to 30 feet high), would be consistent with the APP design guidelines and height limits and would not obstruct views of San Francisco Bay.
- **Topography.** All improvements to enhance drainage and address liquefaction potential along the shoreline would be consistent with the existing flat topography to the extent feasible.
- **Vegetation.** There is no existing vegetation in the project area. Any new landscaping installed as part of the project would be consistent with APP design guidelines.
- **Circulation.** Although the landside components of the project would not be located in the historic district, the project would maintain the existing circulation routes and road alignments.
- **Structures, Furnishings, and Objects.** There are no existing structures, furnishings, or objects in the historic district. All new structures, furnishings, and objects resulting from the project would be designed to be consistent with the character-defining features of the landscape and all applicable standards and guidelines.

Based on the records search performed as part of the APP EIR cultural resources analysis (which included a 0.5-mile radius around the project area), there are no known archaeological or paleontological resources in the project area (including the ferry terminal) and no indication that the project area has been used for burial purposes. However, the development of the Seaplane Lagoon Ferry Terminal would be required to implement **Mitigation Measures 4.D-2, 4.D-3, and 4.D-4** to mitigate potential effects related to inadvertent discovery of cultural resources. In addition, **Mitigation Measures 4.D-5** and **4.D-6** would address cumulative impacts

[18] JRP Historical Consulting LLC and PGAdesign, Inc., 2012. Cultural Landscape Report for Naval Air Station Alameda, April.

to cultural resources. These previously adopted mitigation measures would be implemented as part of the proposed project.

Conclusions

Based on an examination of the analysis, findings, and conclusions of the APP EIR, and on the discussion above, development of the Seaplane Lagoon Ferry Terminal would not result in new impacts that were not identified in the APP EIR or substantially more severe significant cultural resources impacts than identified in the APP EIR.

V. BIOLOGICAL RESOURCES

	Equal or Less Severity of Impact than Previously Identified in APP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR	New Significant Impact
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;	■	❒	❒
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;	■	❒	❒
c) Have a substantial adverse effect on federally protected wetlands (as defined by Section 404 of the Clean Water Act) or on Waters of the State protected wetlands, through direct removal, filling, hydrological interruption, or other means;	■	❒	❒
d) Interfere 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;	■	❒	❒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or	■	❒	❒
f) Conflict with any adopted local, regional, or State Habitat Conservation Plan.	■	❒	❒

Analysis, Findings, and Conclusions of the APP EIR

The APP EIR determined that development and operation of the APP, including the Seaplane Lagoon Ferry Terminal, could result in significant project-level and cumulative biological resource impacts to special-status wildlife, sensitive natural communities, riparian habitat, jurisdictional waters, and migratory and breeding wildlife, and that it could conflict with policies

and ordinances protecting biological resources. The APP EIR included mitigation measures to reduce these impacts to a less-than-significant level. The APP EIR considered the construction and operation of a ferry terminal within Seaplane Lagoon in its assessment of impacts to biological resources.

The APP EIR identified several impacts to special-status fish and marine mammals from construction of the proposed marina and ferry terminal, as well as other in-water construction, and identified **Mitigation Measure 4.E-1a** (Sound Attenuation Monitoring Plan), **Mitigation Measure 4.E-1b** (National Marine Fisheries Service [NMFS] and California Department of Fish and Wildlife [CDFW] Consultation), **Mitigation Measure 4.E-1c** (Additional Noise Attenuation Measures), and **Mitigation Measure 4.E-1d** (Dock Lighting) to reduce these impacts to less-than-significant levels. **Mitigation Measure 4.E-1e** (Northwest Territories Sensitive Resources Measures) applies to the development of the Bay Trail and a proposed regional park.

Impacts to potential bat roosting sites in vacant or underused buildings, other manmade structures, and trees was addressed with **Mitigation Measure 4.E-1f** (Bat Pre-Construction Survey) and **Mitigation Measure 4.E-1g** (Bat Maternity Colony Measures), which would ensure that impacts to special-status wildlife would be less than significant. **Mitigation Measure 4.E-1h** (Monarch Butterflies) provides for monarch butterfly roost protection, typically in groves of mature conifer and eucalyptus trees.

The APP EIR identified potential impacts to sensitive natural communities and jurisdictional waters—including federally protected wetlands, "other waters," and navigable waters—due to marina and ferry terminal and other in-water construction. **Mitigation Measure 4.E-2a** (Native Oysters and Eelgrass)**, Mitigation Measure 4.E-2b** (Boater Education)**,** and **Mitigation Measure 4.E-2c** (Invasive Species Control Plan) apply to the marina and ferry terminal construction; **Mitigation Measure 4.E-3a** (Wetlands), **Mitigation Measure 4.E-3b** (Best Management Practices [BMPs] for Wetlands)**,** and **Mitigation Measure 4.E-3c** (Wetland Mitigation and Monitoring Plan) apply to work in the vicinity of jurisdictional waters, and would therefore apply to the project as well.

The APP could interfere with the movement of native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or could impede the use of native wildlife nursery sites; **Mitigation Measure 4.E-4a** (Marine Craft Access Corridors) would apply to marine activities. The APP EIR determined that bird collisions with lighted buildings and other structures could be reduced with **Mitigation Measure 4.E-4b** (Bird Strike Mitigation); this measure requires design features that reduce the risk of avian collisions, and also requires the avoidance and minimization of increases in ambient night lighting. In addition, the APP would be required to implement **Mitigation Measure 4.E-4c** (Breeding Birds) and **Mitigation Measure 4.E-4d** (Burrowing Owl) to avoid impacts to nesting birds and burrowing owls. General increases in ambient noise levels due to buildout would be less than significant; however, construction activities could generate noise that would substantially exceed ambient levels and impact nesting birds. Implementation of **Mitigation Measure 4.E-4e** (Noise Mitigation Measures for Breeding Birds) would reduce this impact to a less-than-significant level. Open refuse containers would be prohibited throughout the project area through

implementation of **Mitigation Measure 4.E-4f** (Open Refuse Containers); this would minimize the potential for increased predation on migratory and breeding birds. **Mitigation Measures 4.E-5, 4.E-6,** and **4.E-7** require the implementation of the above measures to reduce conflicts with policies and ordinances and to reduce cumulative impacts.

Proposed Ferry Terminal

Construction of the ferry terminal would include in-water construction in Seaplane Lagoon as well as landside construction, both of which were evaluated in the APP EIR. Most of the landside portion of the project site is developed and landscaped; it is not within the Northwest Territories open space or on federal property, and is not within close proximity to the California least tern (*Sternula antillarum browni*) nesting colony.

The area impacted by construction of the ferry terminal and associated structures includes temporary and permanent impacts to developed land, ruderal grassland, and tidal jurisdictional waters associated with (1) construction of a parking area, transit drop-off and bus turnaround area, abutment, pier, gangway, and float; and (2) soil improvement work. Approximately 150,000 square feet of developed land and ruderal grassland would be modified by construction of a parking lot for the ferry terminal; such impacts to upland developed and ruderal areas would not result in loss of sensitive or regulated habitat or habitat for special-status species. The construction of a transit drop-off and bus turnaround would occur in areas currently occupied by paved roads, other developed lands, and ruderal grassland that also do not support sensitive biological resources. Along the waterfront, a pier abutment would be constructed on existing rock revetment. No mitigation for impacts to upland developed areas or ruderal grasslands are warranted and none was required by the APP EIR.

Construction of the ferry terminal would result in permanent direct and indirect impacts, from fill and shading, of a total of 8,924 square feet of jurisdictional waters. Permanent loss of approximately 118 square feet of tidal jurisdictional waters would result from installation of support pilings for the pier and float. Permanent alteration of jurisdictional waters and fish habitat by shading of approximately 8,806 square feet of tidal waters would occur due to the construction of the pier, gangway, and floats. In addition, approximately 250 square feet of jurisdictional waters would be temporarily impacted when riprap below the high tide line is removed for abutment improvements and then replaced; however, no net change in jurisdictional waters would occur as a result of these abutment improvements. Thus, the APP EIR requires implementation of **Mitigation Measure 4.E-3c**, which specifies compensation requirements for temporary and permanent impacts to jurisdictional waters, and requires compensation at a minimum 1:1 ratio for temporary and permanent impacts but indicates that actual compensatory mitigation ratios will be specified in project permits issued by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and San Francisco Bay Conservation and Development Commission. Removal of the existing timber dock to the north of the proposed ferry terminal would result in the removal of up to approximately 3,800 square feet of shading over tidal waters and removal of 28 timber piles (each approximately 12 inches in diameter). Removal of this pier would serve as a feasible mitigation measure to compensate for placement of ferry terminal structures in and over jurisdictional waters; final compensatory

mitigation will be determined in coordination with the aforementioned regulatory agencies during project permitting. In addition, work within jurisdictional waters requires implementation of **Mitigation Measure 4.E-3a** (regulatory permitting and BMPs) and **Mitigation Measure 4.E-3b** (standard BMPs preventing spills and pollution of jurisdictional waters).

The APP EIR identified several special-status fish and marine mammals that may occur within the site of the proposed ferry terminal. The bay waters within Seaplane Lagoon are identified as critical habitat for the Central California Coast steelhead (*Oncorhynchus mykiss*) and southern green sturgeon (*Acipenser medirostris*). The state threatened longfin smelt (*Spirinchus thaleichthys*) may also occur in Seaplane Lagoon, most likely in the winter months. The bay waters surrounding Alameda Point, including Seaplane Lagoon, are also considered essential fish habitat for Fishery Management Plan-managed fish taxa and contain spawning and foraging habitat for Pacific herring. Pacific harbor seals are found year-round in Seaplane Lagoon, and California sea lions may occasionally occur in project area waters through most of the year. Construction noise produced by pile driving has the potential to harm special-status fish and marine mammals. Thus, implementation of **Mitigation Measure 4.E-1a** would apply to the project, requiring a Sound Attenuation Monitoring Plan detailing the construction and monitoring methods to be used and describing management practices to be taken to reduce and monitor pile-driving sound in the marine environment. To further reduce noise impacts to the marine environment, implementation of **Mitigation Measure 4.E-1c** would be required. This measure details additional actions to protect fish and marine mammals, such as establishing a safety zone around the sound source and limiting sound levels when pinnipeds are present. In addition, implementation of **Mitigation Measure 4.E-1b**, which requires consultation with NMFS and CDFW, would be required to determine whether additional permitting is required for in-water work with the potential to impact marine mammals or special-status fish.

The APP EIR identified several special-status birds and other migratory bird species that may occur within the proposed ferry terminal site. California least tern, California brown pelican (*Pelecanus occidentalis californicus*), osprey (*Pandion haliaetus*), three species of cormorant, several gull species, grebes, and multiple duck species forage in the waters of Seaplane Lagoon. Foraging by California least tern and other fish-eating birds may be affected by turbidity and noise generated by pile driving. Implementation of **Mitigation Measures 4.E-1a** and **4E-1c** would minimize potential impacts of construction activities on fish and, consequently, the foraging birds that depend on them. Because the waters of Seaplane Lagoon are not a primary foraging area of the California least tern, temporary loss of these waters due to construction noise and activity is considered less than significant by the APP EIR.

Installation of the ferry terminal has the potential to interfere with the movement of fish, marine mammals, and rafting waterbirds. As discussed in Impact 4.E-4 of the APP EIR, an increase in vessel traffic is expected to increase operational boat noise and movement through San Francisco Bay and Seaplane Lagoon, which may influence movements of, or result in disturbance to, fish and wildlife in the area.

The APP EIR identifies the potential for direct impacts to eelgrass and oyster beds, and indirect impacts to these resources through the introduction and/or spread of invasive species.

Although no eelgrass has been previously mapped in the vicinity of the proposed ferry terminal, **Mitigation Measure 4.E-2a** would be implemented to minimize or mitigate impacts to eelgrass, and **Mitigation Measure 4.E-2c**, which involves development and implementation of a Marine Invasive Species Control Plan prior to commencement of in-water work, would also be implemented.

The APP EIR identifies fish and wildlife species, both resident and migratory, that could be impacted by artificial night lighting of the ferry terminal, parking lot, and associated areas. The project site is located within the Pacific Flyway, a migratory corridor for numerous avian species. Installation of artificial night lighting may attract or disorient migrating birds. Lighting on the ferry terminal docks also could alter normal swimming and foraging behavior of fish, marine mammals, and seabirds. Therefore, **Mitigation Measure 4.E-1d**, requiring artificial lighting of bay waters to use shielded, low-mounted, and low light-intensity fixtures and bulbs, would be implemented to reduce lighting impacts.

Several bird species may breed within the proposed ferry terminal site or on/under the dock that is to be demolished. **Mitigation Measure 4.E-4c** would be required to identify bird nests and to protect active nests from disturbance. While California least terns do not breed within the project site, excessive noise during demolition or construction could disturb breeding terns. Thus, **Mitigation Measure 4.E-4e** would be implemented to ensure that noise levels within the breeding colony remain below levels disruptive to breeding terns. The project could create conditions (e.g., increased perches and food trash) that attract predators such as corvids, raptors, raccoons (*Procyon lotor*), and Virginia opossums (*Didelphis virginiana*) to the area, including to the nearby California least tern colony. Implementation of **Mitigation Measure 4.E-4f** would prohibit open refuse containers that could attract predators to the project area.

Finally, the APP EIR identified potential conflicts with policies and ordinances and potential cumulative impacts. The mitigation measures described above were designed to be consistent with local, state, and federal policies and ordinances, and to minimize cumulative impacts. Implementation of **Mitigation Measures 4.E-5, 4.E-6,** and **4.E-7** would reduce the potential for conflicts with policies and ordinances to low levels and minimize cumulative impacts.

Other biological resource impacts identified in the APP EIR are not applicable to the ferry terminal because the resources required by specific species are not present in the vicinity of the ferry terminal project areas. Specifically, no impacts to roosting bats, burrowing owls (*Athene cunicularia*), or monarch butterflies (*Danaus plexippus*) are anticipated to occur from the ferry terminal project because no suitable habitat for these species occurs in the project area (**Mitigation Measures 4.E-1f, 4.E-1g**, **4.E-1h** do not apply). No impacts to migratory birds due to collisions with new buildings would occur as a result of the ferry terminal because the proposed project does not involve construction of a new building; therefore, **Mitigation Measures 4.E-4b** does not apply. **Mitigation Measures 4.E-1e** and **4.E-4d** apply only to the Northwest Territories open space and the proposed Bay Trail in the Northwest Territories and federal property and would not apply to the project. In addition, **Mitigation Measure 4.E-2b** applies only to a marina, and thus is not applicable to the ferry terminal development project.

In summary, as described above, the previously adopted mitigation measures that are applicable would be implemented as part of the proposed project.

Conclusions

Based on an examination of the analysis, findings, and conclusions of the APP EIR, and on the discussion above, development of the Seaplane Lagoon Ferry Terminal would not result in new impacts that were not identified in the APP EIR or substantially more severe significant biological resources impacts than identified in the APP EIR.

VI. AIR QUALITY AND GREENHOUSE GASES

	Equal or Less Severity of Impact than Previously Identified in APP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR	New Significant Impact
Would the project:			
a) Conflict with or obstruct implementation of the applicable air quality plan;	■	❒	❒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;	■	❒	❒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);	■	❒	❒
d) Expose sensitive receptors to substantial pollutant concentrations;	■	❒	❒
e) Create objectionable odors affecting a substantial number of people;	■	❒	❒
f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or	■	❒	❒
g) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.	■	❒	❒

Analysis, Findings, and Conclusions of the APP EIR

The APP EIR determined that, during operation, the APP including the Seaplane Lagoon Ferry Terminal would result in less-than-significant impacts related to emissions of toxic air contaminants (TACs), carbon monoxide (CO), odors, and GHGs. However, potentially significant impacts could occur related to emissions of TACs during construction and criteria air pollutants during construction and operation. These impacts and associated mitigation measures are summarized below.

The APP EIR determined that unmitigated emissions of criteria air pollutants and TACs during construction could result in potentially significant air quality impacts. Therefore, all construction activities at Alameda Point would be required to implement **Mitigation Measure 4.F-1a** (Fugitive Dust), **Mitigation Measure 4.F-1b** (Construction Exhaust), **Mitigation Measure 4.F-1c** (Demolition Controls), **Mitigation Measure 4.F-1d** (TACs and $PM_{2.5}$), **Mitigation Measure 4.F-1e** (Delayed Occupancy), and **Mitigation Measure 4.F-4** (Implement Mitigation Measures 4.F-1a, 4.F-1b, and 4.F-1e). While mitigation was found to reduce impacts from TACs to a less-than-significant level, the APP EIR determined that the air quality impacts from emissions of criteria pollutants would remain significant and unavoidable.

The APP EIR determined that unmitigated emissions of criteria air pollutants (ozone precursors, particulate matter less than 10 microns in diameter [PM_{10}], and particulate matter less than 2.5 microns in diameter [$PM_{2.5}$]) during operation could result in potentially significant air quality impacts. Therefore, all development at Alameda Point would be required to comply with **Mitigation Measure 4.F-2** (Transportation Demand Management Program and Building Design Requirements), **Mitigation Measure 4.F-7a** (Implement Mitigation Measure 4.F-2), **Mitigation Measure 4.F-7b** (Fuel-Efficient Vehicles), and **Mitigation Measure 4.F-8** (Implement Mitigation Measures 4.F-2 and 4.F-7b). While mitigation was found to reduce impacts related to implementation of the Bay Area Air Quality Management District (BAAQMD)'s 2010 Clean Air Plan to a less-than-significant level, the APP EIR determined that the potential impacts to ambient air quality standards would remain significant and unavoidable.

Proposed Ferry Terminal

The impacts of the Seaplane Lagoon Ferry Terminal project are consistent with the project analyzed in the APP EIR, and would have less-than-significant impacts related to TACs, CO, and odors during operation. Potentially significant project impacts that may require mitigation are summarized below.

Generation of criteria pollutant emissions due to construction of the project is addressed in the APP EIR.[19] While implementation of **Mitigation Measure 4.F-1a** and **Mitigation Measure 4.F-1b** from the APP EIR would reduce the project's criteria pollutant emissions during construction, according to the APP EIR, the impact could remain significant and unavoidable.

Development at the project site would generate criteria pollutant and GHG emissions. In accordance with the APP EIR, the project would implement **Mitigation Measures 4.F-2, 4.F-7a, 4.F-7b, and 4.F-8** by complying with the Alameda Point Transportation Demand Management Plan and using water efficient irrigation systems. These mitigation measures would help to reduce the project's criteria air pollutant and GHG emissions from landside development (i.e., parking lot use and landscape irrigation). The ferry ridership estimate completed for the project found that operation of the ferry service would reduce existing vehicle emissions in the San

[19] BASELINE Environmental Consulting, 2016. *Air Quality and Greenhouse Gas Analysis – Seaplane Lagoon Ferry Terminal*. March 21.

Francisco Bay Area[20]; therefore, the project would comply with the Alameda Point Transportation Demand Management Plan.

As described in Attachment C, the project-level analysis of the project's emissions of criteria air pollutants and GHGs found that the combined emissions from landside and waterside construction and operation of the new ferry terminal would not result in any new significant impacts or potentially more severe impacts than those identified in the APP EIR.[21] Emissions of criteria air pollutants and GHGs from the project's new ferry service (both transit and idling) were estimated and compared to the BAAQMD's recommended thresholds of significance.[22] The estimated unmitigated emissions for reactive organic gases (ROGs), nitrogen oxides (NOx), PM_{10} and $PM_{2.5}$ (Table 6), and GHGs (Table 7) are below the BAAQMD's thresholds. Therefore, the project's emissions of criteria pollutants and GHGs would have a less-than-significant impact on ambient air quality standards and climate change, respectively.

This analysis is conservative as it is based on a Tier 2 engine, while the project would likely have a Tier 3 with SCR (Tier 4 equivalent) engine. In addition, the reduction in vehicles miles traveled associated with the use of the ferry for commute trips has not been accounted for in this analysis, which would further reduce emissions overall.

TABLE 6 SUMMARY OF CRITERIA POLLUTANT EMISSIONS DURING PROJECT OPERATION

Emissions Scenario	ROG	NOx	PM10	PM2.5	ROG	NOx	PM10	PM2.5
Units	lb/day	lb/day	lb/day	lb/day	ton/yr	ton/yr	ton/yr	ton/yr
Ferry Transit Emissions	13.61	2.51	1.53	1.53	1.722	0.317	0.194	0.194
Ferry Idling Emissions	3.40	0.63	0.38	0.38	0.430	0.079	0.048	0.048
Total Unmitigated Emissions[a]	**17**	**3.1**	**1.9**	**1.9**	**2.2**	**0.40**	**0.24**	**0.24**
BAAQMD's Thresholds	54	54	82	54	10	10	15	10

Notes: ton/yr = tons per year; lb/day = pounds per day
Only PM emissions from exhaust reported.
[a] Rounded to two significant figures.
Source: BASELINE Environmental Consulting, 2016.

The project would generate TACs on the project site, particularly diesel particulate matter, from the exhaust of diesel equipment during construction and on-road vehicles and ferries during operation. If new residences are developed on Site A within 1,000 feet of the project prior to construction, then the project's TAC emissions could potentially affect the health of people located at the new residences (if any). Implementation of **Mitigation Measures 4.F-1a, 4.F-1b, 4.F-1d, and 4.F-4** from the APP EIR would reduce emissions of TACs during construction to a less-than-significant level. Consistent with the APP EIR, the combined TAC emissions from

[20] Kittelson & Associates, Inc., 2016. *Technical Memorandum; Alameda Point Seaplane Lagoon Ferry Terminal*. March 17.

[21] BASELINE Environmental Consulting, 2016. *Air Quality and Greenhouse Gas Analysis – Seaplane Lagoon Ferry Terminal*. March 21.

[22] BAAQMD, 2010. *California Environmental Quality Act Air Quality Guidelines*. May.

operation of the project's landside and waterside development would be expected to have a less-than-significant impact on nearby sensitive receptors (if any).[23]

TABLE 7 SUMMARY OF AVERAGE GREENHOUSE GAS EMISSIONS

Emissions Scenario		**CO_2e**
	Units	MT/yr
Ferry Transit Emissions		852
Ferry Idling Emissions		213
Total Unmitigated Emissions		**1,096**
BAAQMD's Thresholds		1,100

Notes: MT/yr = metric tons per year
CO_2e = carbon dioxide equivalent

Source: BASELINE Environmental Consulting, 2016.

Asbestos-containing material that could pose a health hazard to sensitive receptors is not expected during demolition of the existing pier on the project site; however, if it is encountered, compliance with **Mitigation Measure 4.F-1c** from the APP EIR would reduce potential impacts.

Because the project does not include new residences that could be exposed to existing sources of TACs, **Mitigation Measure 4.F-1e** from the APP EIR would also not apply to the project.

In summary, as described above, the previously adopted mitigation measures that are applicable would be implemented as part of the proposed project.

Conclusions

Based on an examination of the analysis, findings, and conclusions of the APP EIR, and on the discussion above, development of the Seaplane Lagoon Ferry Terminal would not result in new impacts that were not identified in the APP EIR or substantially more severe significant air quality or GHG impacts than identified in the APP EIR.

[23] BASELINE Environmental Consulting, 2016. *Air Quality and Greenhouse Gas Analysis – Seaplane Lagoon Ferry Terminal*. March 21.

VII. NOISE

	Equal or Less Severity of Impact than Previously Identified in APP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR	New Significant Impact
Would the project result in:			
a) Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies; • An increase in noise exposure of 4 or more dB if the resulting noise level would exceed that described as normally acceptable for the affected land use, as indicated in Table 8-1 (Table 4.G-3 above). • Any increase of 6 dB or more, due to the potential for adverse community response. • When evaluating noise impacts associated with new residential development, exposure to traffic noise in outdoor yard spaces shall not be considered a significant impact. *(Policy 8.7.h)*;	■	❒	❒
b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels;	■	❒	❒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;	■	❒	❒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;	■	❒	❒
e) Exposure of people residing or working in the area around the project site to excessive noise levels (for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport); or	■	❒	❒
f) Exposure of people residing or working in the area around the project site to excessive noise levels (for a project within the vicinity of a private airstrip).	■	❒	❒

Analysis, Findings, and Conclusions of the APP EIR

The APP EIR determined that the APP, including the Seaplane Lagoon Ferry Terminal, could result in significant project-level and cumulative noise impacts. Even with implementation of **Mitigation Measure 4.G-1a** (Construction Hours), **Mitigation Measure 4.G-1b** (Construction Noise Measures), **Mitigation Measure 4.G-1c** (Pile-Driving Noise Attenuation Measures), and **Mitigation Measure 4.G-1d** (Complaint Tracking), the APP EIR determined that the redevelopment and reuse of NAS Alameda would result in significant and unavoidable project-level impacts due to construction noise.

Impacts related to groundborne construction vibration, groundborne construction noise, non-transportation-related operations, and the placement of noise-sensitive residential uses in noisy environments would be reduced to less-than-significant levels with implementation of **Mitigation Measure 4.G-2** (Implement Mitigation Measures 4.G-1a through 4.G-1d), **Mitigation Measure 4.G-4** (Noise Ordinance), and **Mitigation Measure 4.G-5** (Noise Study and Design Measures).

In addition, project-level and cumulative transportation-related operations noise impacts would be significant and unavoidable, even with implementation of **Mitigation Measure 4.G-3** (Implement Mitigation Measure 4.C-2a) and **Mitigation Measure 4.G-6** (Implement Mitigation Measures 4.G-3 and 4.G-5).

Proposed Ferry Terminal

Existing noise-sensitive uses (residences) are present over 1,500 feet east of the proposed Seaplane Lagoon Ferry Terminal project boundaries. As described in the project-level analysis included in Attachment D, because Site A may be partially constructed prior to the operation of the Seaplane Lagoon Ferry Terminal, these future receptors may also be impacted; these potential receptors would be at least 240 feet from the project's construction activities. As described in the APP EIR, residential land uses could be negatively impacted by construction activities within the project area. Therefore, the construction activities at the Seaplane Lagoon Ferry Terminal would be required to implement the construction mitigation measures, including **Mitigation Measures 4.G-1a** through **4.G-1d** and **4.G-2**. Because the distance between sensitive receptors and the proposed construction is greater than the minimum distance evaluated in the APP EIR, the noise impact from the project's construction activities would be less than the worst-case noise impacts identified in the APP EIR. The potential for significant vibration impacts from pile driving was evaluated on a project-level basis and found to be less than significant.

The development of the Seaplane Lagoon Ferry Terminal would result in an increase in transportation noise over existing conditions. The potential increase in noise associated with an increase in traffic volumes caused by the development of the Seaplane Lagoon Ferry Terminal was accounted for in the APP EIR's noise analysis. Expanding ferry service in Alameda with the construction and operation of the Seaplane Lagoon Ferry Terminal, in addition to other public transit and pedestrian/biking infrastructure associated with the project, would assist in reducing traffic congestion in the City by expanding transit options as an alternative to vehicular trips and by dispersing vehicular trips to access ferry transit between the two western Alameda ferry service locations. Therefore, the project is consistent with **Mitigation Measure 4.G-3**, which requires the sponsors of development projects with Alameda Point to participate in a Transportation Demand Management program. Strategies to reduce automobile trips generated by development within Alameda Point, particularly from single-occupant vehicles, have been outlined in the Alameda Point Transportation Management Plan.[24] One of these

[24] Kimley-Horn and Associates, Inc., 2014. *Final Report, Alameda Point Transportation Demand Management Plan*, May 20.

strategies is to shift trips from single-occupant vehicles by providing transit alternatives such as the proposed ferry.

The development of the Seaplane Lagoon Ferry Terminal also would result in an increase in non-transportation noise sources over existing conditions from the operation of the ferry terminal and parking lot. The APP EIR analysis for the increase in non-transportation-generated noise included assumptions for the sources of noise, such as HVAC systems, loading docks, and a sports complex, and required the implementation of **Mitigation Measure 4.G-4**. Implementation of this mitigation measure, which requires that projects be designed to comply with the City's noise standards, would reduce noise from the project to a less-than-significant level. A project-level evaluation of the expected noise that would be generated by the ferry terminal and parking lot found that the noise levels would not exceed the relevant noise standards.[25]

The APP EIR also evaluated the potential noise impact from placing noise-sensitive residential uses in a noise environment that exceeds the City's goals for exterior or interior noise, and developed **Mitigation Measure 4.G-5**, which requires a detailed noise study to determine applicable design measures to achieve acceptable interior noise levels for new residences. Because the Seaplane Lagoon Ferry Terminal project does not include any residential development, this impact and the associated mitigation measure do not apply.

In summary, as described above, the previously adopted mitigation measures that are applicable would be implemented as part of the proposed project.

Conclusions

Based on an examination of the analysis, findings, and conclusions of the APP EIR, and on the discussion above, development of the Seaplane Lagoon Ferry Terminal would not result in new impacts that were not identified in the APP EIR or substantially more severe significant noise impacts than identified in the APP EIR.

[25] BASELINE Environmental Consulting, 2016. *Qualitative Noise and Vibration Evaluation, Alameda Point Project Seaplane Ferry Terminal,* March 21.

VIII. GEOLOGY, SOILS, AND SEISMICITY

	Equal or Less Severity of Impact than Previously Identified in APP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR	New Significant Impact
Would the project:			
a) Expose people or structures to potential substantial adverse effects, including risk of loss, injury or death involving: i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; ii. Strong seismic ground-shaking; iii. Seismic-related ground failure, including liquefaction; and/or iv. Landslides.	■	❒	❒
b) Result in substantial soil erosion or the loss of topsoil;	■	❒	❒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;	■	❒	❒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code creating substantial risks to life or property; or	■	❒	❒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.	■	❒	❒

Analysis, Findings, and Conclusions of the APP EIR

The APP EIR determined that development of the APP, including the Seaplane Lagoon Ferry Terminal, would have no impacts related to surface fault rupture, substantial erosion and loss of topsoil, waste disposal systems, or unique geological features. However, development of the APP could have potentially significant project-level and cumulative impacts related to seismic ground shaking, seismically induced ground failure, slope stability, subsidence, and expansive soils that could be reduced to a less-than-significant levels with mitigation. These impacts and associated mitigation measures are summarized below.

The APP is located in a seismically active area and is underlain by sediments that are susceptible to liquefaction. Development of the APP could result in potentially significant impacts by exposing people and structures to seismic events that could cause violent ground shaking and/or ground failure (liquefaction, settlement, and landslides). **Mitigation Measures 4.H-1** and **4.H-2** require any projects within the APP area to prepare and implement the recommendations of a site-specific, design-level geotechnical investigation to reduce the

impacts of seismic ground shaking and seismically induced ground failure to a less-than-significant level.

The north shoreline sediments within the Oakland Inner Harbor have an incline as a result of dredging activities within the channel. The existing slopes would likely fail under seismic conditions and any new loads from fill placement or buildings within 50 feet of the northern shoreline would likely have an adverse effect on static slope stability. **Mitigation Measure 4.H-3** requires any projects within 50 feet of the northern shoreline to prepare and implement the recommendations of a geotechnical stability plan to reduce the impacts of slope instability to a less-than-significant level.

Most of the APP area is underlain by artificial fill and Bay Mud, which is generally susceptible to subsidence or settlement. Soil consolidation and differential settlement presents a potentially significant impact on development of the APP. **Mitigation Measure 4.H-4** requires any projects within the APP to prepare and implement the recommendations of a site-specific, design-level geotechnical investigation to reduce the impacts of soil consolidation and differential settlement to a less-than-significant level.

Structures and other improvements that would be constructed within the APP area could be damaged as a result of expansive soils if present. **Mitigation Measure 4.H-5** requires any projects within the APP to prepare and implement the recommendations of a site-specific, design-level geotechnical investigation to reduce the impacts of expansive soils to a less-than-significant level.

Proposed Ferry Terminal

The project development is consistent with the APP EIR analysis and would have no impacts related to surface fault rupture, substantial erosion and loss of topsoil, waste disposal systems, or unique geological features. However, project development could have potentially significant impacts related to seismic ground shaking, seismically induced ground failure, subsidence, and expansive soils. **Mitigation Measures 4.H-1, 4.H-2, 4.H-4,** and **4.H-5,** which require preparation and implementation of the recommendations of a site-specific, design-level geotechnical investigation, would reduce these impacts to a less-than-significant level.

Because the project site is not located within 50 feet of the northern shoreline of the APP area, the project would not be required to implement **Mitigation Measure 4.H-3** to reduce potential impacts from slope instability to a less-than-significant level. However, shoreline stabilization of Seaplane Lagoon near the proposed pier would be required as part of the project to stabilize soils that may undergo liquefaction during a seismic event.

In summary, as described above, the previously adopted mitigation measures that are applicable would be implemented as part of the proposed project.

Conclusions

Based on an examination of the analysis, findings, and conclusions of the APP EIR, and on the discussion above, development of the Seaplane Lagoon Ferry Terminal would not result in new impacts that were not identified in the APP EIR or substantially more severe significant impacts relating to geology, soils, or seismicity than identified in the APP EIR.

IX. HYDROLOGY AND WATER QUALITY

	Equal or Less Severity of Impact than Previously Identified in APP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR	New Significant Impact
Would the project:			
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality;	■	❒	❒
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;	■	❒	❒
c) Substantially alter the existing drainage pattern of the site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off- site;	■	❒	❒
d) Create or substantially contribute to runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;	■	❒	❒
e) Place housing or other improvements within a 100-year flood hazard zone as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard map or impede or redirect flood flows;	■	❒	❒
f) 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; or	■	❒	❒
g) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.	■	❒	❒

Analysis, Findings, and Conclusions of the APP EIR

The APP EIR determined that development of the APP, including the Seaplane Lagoon Ferry Terminal, would have no impact related to groundwater supplies, seiches, mud flows, and dam failures. Based on the low possibility of a tsunami occurring in the APP area and the design and

location of structural development at Alameda Point, the impact of a tsunami to structures and the public was considered less than significant.

The APP would include landside and waterside construction activities. Landside construction for sites greater than 1 acre would be subject to San Francisco Bay Regional Water Quality Control Board (Regional Water Board) requirements, which, as part of the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, would include preparation and execution of a Stormwater Pollution Prevention Plan that would outline construction stormwater quality management practices, likely based on the Alameda County Clean Water Program's Stormwater Quality Management Plan. For waterside construction, permits would be required from the U.S. Army Corps of Engineers, Regional Water Board, San Francisco Bay Conservation and Development Commission, and the City of Alameda, which would include measures to protect water quality during construction. Construction activities that require dredging would be subject to permitting requirements from the Dredged Material Management Office (DMMO). Compliance with existing regulations during construction was found to reduce impacts related to the degradation of water quality to a less-than-significant level.

Development projects would be required to implement low impact design measures under Provision C.3 of the NPDES Municipal Regional Stormwater Permit. These measures include source control, site design, and treatment requirements to reduce the amount of stormwater runoff and improve the quality of the runoff. In addition, the APP would install new stormwater systems to collect and convey the stormwater flows through new outfall structures. The APP EIR found that compliance with existing regulations would reduce impacts related to increased runoff to a less-than-significant level.

Maintenance dredging of Seaplane Lagoon could adversely affect water quality. Similar to dredging during construction, any maintenance dredging of Seaplane Lagoon would be subject to DMMO permitting requirements. The APP EIR found that compliance with existing DMMO permitting requirements would reduce water quality impacts from dredging to a less-than-significant level.

Development for the APP could have potentially significant impacts related to dewatering during construction, degradation of water quality from fertilizer and pesticide use on landscaped areas, flooding from 100-years storm events, and flooding as a result of sea level rise. These impacts and associated mitigation measures are summarized below.

In areas where dewatering would be implemented during construction, depending on the quality of the groundwater, the discharge of dewatering effluent could contaminate the receiving waters. The APP EIR found that implementation of **Mitigation Measure 4.I-1** (Water Quality Measures) would reduce potential water quality impacts to receiving waters to a less-than-significant level.

Maintenance of new landscaped areas would involve the use of fertilizers and pesticides, which, if not properly handled, could flow into storm drains and/or waterways, affecting the receiving water quality. The APP EIR found that implementation of **Mitigation Measure 4.I-2** (Integrated

Pest Management) would reduce potential water quality impacts to receiving waters to a less-than-significant level.

The Alameda Point Master Infrastructure Plan evaluated local flood hazards and determined that the shorelines of Alameda Point are subject to flooding in a 100-year tidal event and wave/wind run-up. Areas susceptible to flooding from a 100-year storm event within the development area of the APP (which includes the project site) would be constructed at or above the 100-year tidal elevation plus 24 inches for sea level rise; therefore, impacts related to inundation from a 100-year tidal event were found to be less-than-significant for the development area. However, within the adaptive reuse areas (which do not include the project site) where the APP's proposed storm drain system and flood protection measures would be incrementally installed over time, flooding from a 100-year tidal event could be potentially significant. The APP EIR found that implementation of **Mitigation Measure 4.I-6** (Flood Protection Measures) would reduce potential impacts related to inundation from a 100-year tidal event within the adaptive reuse areas to a less-than-significant level.

The APP would involve construction of levees and floodwalls along the perimeter of the site that would be designed initially to accommodate 24 inches of sea level rise with capability to adapt to 55 inches of sea level rise. Implementation of **Mitigation Measure 4.I-8** (Sea Level Rise Protection) was found to reduce potential impacts related to future sea level rise above 24 inches to a less-than-significant level.

Proposed Ferry Terminal

The project development is consistent with the APP EIR analysis and would have either no impact or less-than-significant impacts related to groundwater supplies, seiches, mud flows, dam failures, and tsunamis. The project does not include any dredging activities that could adversely affect water quality in San Francisco Bay. Compliance with existing regulations, including implementation of stormwater controls required under the NPDES Construction General Permit and low impact design measures required under Provision C.3 of the NPDES Municipal Regional Stormwater Permit, would reduce potential impacts related to the degradation of water quality from stormwater runoff and increasing stormwater runoff from the project site to a less-than-significant level.

The discharge of dewatering effluent during construction of the project could contaminate receiving waters. Implementation of **Mitigation Measure 4.I-1** from the APP EIR would reduce potential water quality impacts to receiving waters from construction dewatering (if any) to a less-than-significant level. Fertilizers and/or pesticides applied to landscaped areas of the project site could flow into storm drains and/or waterways and cause degradation of receiving water quality. Implementation of **Mitigation Measure 4.I-2** from the APP EIR would reduce potential water quality impacts to receiving waters from fertilizers and pesticides to a less-than-significant level.

Portions of the project site located along the shoreline of Seaplane Lagoon are susceptible to flooding from a 100-year tidal event and sea level rise. The waterside components of the project site (i.e. ferry terminal) would be constructed at or above the 100-year tidal elevation. In

addition, when the permanent landside public access improvements are constructed under future phases of Alameda Point for Site B, protection from sea level rise and from inundation in a 100-year tidal event would be achieved through implementation of **Mitigation Measure 4.I-8**. **Mitigation Measure 4.I-6** only applies to the adaptive reuse areas of the APP, which do not include the project site; therefore, this mitigation measure is not applicable to the project.

In summary, as described above, the previously adopted mitigation measures that are applicable would be implemented as part of the proposed project.

Conclusions

Based on an examination of the analysis, findings, and conclusions of the APP EIR, and on the discussion above, development of the Seaplane Lagoon Ferry Terminal would not result in new impacts that were not identified in the APP EIR or substantially more severe significant impacts relating to hydrology and water quality than identified in the APP EIR.

X. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Equal or Less Severity of Impact than Previously Identified in APP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR	New Significant Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;	■	❒	❒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;	■	❒	❒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;	■	❒	❒
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;	■	❒	❒
e) Be 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 for people residing or working in the project area;	■	❒	❒
f) Result in a safety hazard for people residing or working in the project site vicinity for a project within the vicinity of a private airstrip;	■	❒	❒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or	■	❒	❒

X. HAZARDS AND HAZARDOUS MATERIALS

	Equal or Less Severity of Impact than Previously Identified in APP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR	New Significant Impact
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	■	❒	❒

Analysis, Findings, and Conclusions of the APP EIR

The APP EIR addressed the development of the APP including the Seaplane Lagoon Ferry Terminal and determined that development would have no impacts or less-than-significant impacts related to hazardous materials use, aviation hazards, emergency response plans, and wildland fires. However, development could have potentially significant impacts related to the demolition of buildings with hazardous building materials and the disturbance of soils and groundwater affected by hazardous materials. These impacts and associated mitigation measures are summarized below.

Demolition of existing structures in the APP area could result in potentially significant impacts by exposing construction workers, the public, or the environment to hazardous building materials such as lead-based paint (LBP), asbestos-containing materials (ACM), and polychlorinated biphenyls (PCBs). **Mitigation Measures 4.J-1a** through **4.J-1e** require any projects involving the demolition of existing structures within the APP area to properly remove LBP, ACM, or PCBs in accordance with a site-specific hazardous building materials assessment and health and safety plan. Implementation of these mitigation measures was found to reduce the impacts of hazardous building materials to a less-than-significant level.

Portions of the APP area have a long history of industrial and naval uses that have resulted in soil and groundwater contamination. Before transferring properties to the City of Alameda, the United States Navy (Navy) investigated and cleaned up hazardous materials release sites to a level determined to be environmentally suitable for transfer by deed. For properties transferred with residual contamination that could affect human health, the City requires the deed to include land use controls to protect human health. The City maintains a record of properties with land use restrictions in its Land Use Restriction Tracking Program.

In addition to hazardous materials release sites, a portion of the APP has been affected by the Marsh Crust, which is a layer of sediment contaminated with petroleum-related substances that was deposited across the tidelands and the former subtidal areas from the late 1800s until the 1920s. In accordance with the City's General Ordinance No. 2824 (also referred to as the Marsh Crust Ordinance), any excavations that extend within 5 feet of the Marsh Crust are subject to notification and permit requirements. Before digging, contractors are required to review the

Marsh Crust map that establishes threshold depths pertinent to restrictions on excavations. Most excavations at or beneath the threshold depth require a Marsh Crust permit from the City, an approved site-specific health and safety plan, and special materials handling procedures.

Soil disturbance and any necessary dewatering during construction within portions the APP area could result in potentially significant impacts by dispersing existing contamination into the environment and exposing construction workers and the public to contaminants. Subsurface contamination could also result in potentially significant impacts to future residents, workers, and visitors exposed to these contaminants through vapor intrusion or contact with contaminated soils through excavation or other ground-disturbing activities. **Mitigation Measure 4.J-2** (Site Management Plan) requires preparation of a site management plan approved by the United States Environmental Protection Agency (EPA), the California Department of Toxic Substances Control (DTSC), and the Regional Water Board for incorporation into construction specifications within the APP area. The site management plan must specify protocols and requirements for, among other things, excavation, stockpiling, soil transport, and groundwater dewatering, as well as a contingency plan to respond to the discovery of previously unknown areas of contamination. **Mitigation Measure 4.J-7** requires the City to include the Navy's hazardous materials release sites that have land use controls within its Land Use Restriction Tracking Program for identification and disclosure of any past cleanup efforts and the current status of remaining contamination, if any. Before transferring title for any parcel, the City's site management plan (see **Mitigation Measure 4.J-2**) for intrusive construction activities must also be incorporated with the deed restriction, enforceable land use covenant, or any other applicable legal requirement. The City's compliance with **Mitigation Measure 4.J-2** (Site Management Plan) and **Mitigation Measure 4.J-7** (Land Use Restriction Tracking Program) combined with individual project compliance with deed restrictions recorded under the City's Land Use Restriction Tracking Program and adherence to the Marsh Crust Ordinance was found to reduce the potential for residual contamination in the APP area to impact human health and the environment to a less-than-significant level.

Proposed Ferry Terminal

The project development is consistent with the APP EIR analysis and would have either no impact or less-than-significant impacts related to hazardous materials use, aviation hazards, emergency response plans, and wildland fires. The APP EIR identified potentially significant impacts associated with the release of LBP, ACM, and/or PCBs during building demolition that could be reduced with implementation of **Mitigation Measures 4.J-1a** through **4.J-1e**; although, it is unlikely that these hazardous building materials would be encountered during demolition for the project, these measures would reduce potential impacts to a less-than-significant level as described in the APP EIR. As described in the Project Description, above, the timber piles of the existing pier that have been treated with creosote or other potentially hazardous materials would be handled properly and disposed of at a facility permitted to handle hazardous waste. Therefore, demolition of the existing pier on the project site would have a less-than-significant impact on human health and/or the environment.

Consistent with the findings of the APP EIR, the project could disturb soil and/or groundwater contaminated by petroleum-related substances in the Marsh Crust and/or former naval base operations, posing a potentially significant impact to human health and the environment. These impacts and associated mitigation measures from the APP EIR to reduce the impacts to a less-than-significant level are summarized below.

Marsh Crust

Any excavations deeper than 5 feet below ground surface on the project site could encounter petroleum-related substances in the Marsh Crust. In accordance with the City's Marsh Crust Ordinance, any project excavation deeper than 5 feet are subject to notification and permit requirements, such as an approved site-specific health and safety plan and special materials handling procedures. Compliance with the Marsh Crust Ordinance would reduce potential impacts associated with the disturbance of contaminated marsh deposits to a less-than-significant level.

Navy Base Hazardous Materials Release Sites

Alameda Point was an active Navy base from 1940 to 1997. Historical operations at the base have resulted in localized areas of soil and/or groundwater contamination from fuels, metals, solvents, PCBs, pesticides, polynuclear aromatic hydrocarbons, and, in a few instances, radioluminescent paint residues. The Navy is responsible for the cleanup of contamination on properties associated with its former activities at Alameda Point. The Navy can only transfer a property to the City once the environmental regulators agree that the property has been cleaned to federal standards.

To evaluate the nature and extent of the contaminated areas, and to complete any needed remediation, the Navy conducts two parallel environmental programs at Alameda Point: (1) the petroleum program; and (2) the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) program. The Navy's cleanup of petroleum at Alameda Point is overseen by the Regional Water Board. The federal CERCLA program addresses most other types of contamination and is overseen by the EPA, DTSC, Regional Water Board, Navy, and, in certain instances, the California Department of Public Health. A total of 34 Installation Restoration (IR) sites (sites designated by the United States Department of Defense for cleanup of contamination from past operations) are in Alameda Point's CERCLA program. As of February 2, 2016, 18 of the 34 IR sites have been closed. Active remediation is completed at nine more IR sites, but full closure will occur after natural processes lower contaminants to target levels and/or land use and closure documentation is finalized. All of the IR sites within the land owned by the City are closed or are in the natural attenuation phase of remediation.

The project site is located on four IR sites: IR Site 17 (Seaplane Lagoon), IR Site 27 (Dock Zone), IR Site 11 (Engine Test Cell), and IR Site 21 (Ship Fitting and Engine Repair). The Navy has included IR Sites 11 and 21 in a group referred to as Operable Unit 2B (OU-2B) for collective investigation and cleanup. The current status of IR Site 17, IR Site 27, and OU-2B are summarized below.

IR Site 17, Seaplane Lagoon

The project site is located within IR Site 17 (Seaplane Lagoon). The Final CERCLA Record of Decision for IR Site 17 was submitted in November 2006. Most of the sediment contamination (metals, PCBs, and pesticides) at IR Site 17 are from industrial wastewater routinely disposed of into storm drain lines prior to the mid-1970s. The Navy has successfully dredged and off-hauled this contaminated sediment, which was located around storm drain outfalls at Seaplane Lagoon's two northern corners (outside the project area). During the dredging process, the Navy encountered 51 items (most were smaller than a quarter) that contained small amounts of radioluminescent paint. These items, which appear not to have originated from the outfalls, were found at the rate of about one per 2,000 cubic yards of sediment (or four per acre); although sparsely located, they could be present elsewhere in Seaplane Lagoon sediment. To ensure that any Seaplane Lagoon dredging is protective of health and the environment, the CERCLA Record of Decision is currently being revised to require dredging to be conducted consistent with a sediment management plan and work plan that are acceptable to the environmental regulators.[26] Because no dredging is proposed as part of the project, the sediment management plan and work plan do not apply to the project.

IR Site 27, Dock Zone

The project site is located on the northwest portion of IR Site 27 (Dock Zone). Historical activities at IR Site 27 have included ship docking, ship repair, and marine painting. The selected remedy in the final CERCLA Record of Decision for IR Site 27 was in-situ chemical oxidation (ISCO) and monitored natural attenuation of volatile organic compounds in groundwater on the central and eastern portions of IR Site 27, as well as institutional controls. Based on the final CERCLA Record of Decision, no remedial action is necessary for soil on IR Site 27. As of April 2013, the ISCO remedial action has been completed and monitoring of natural attenuation is ongoing. Based on the documented remedial action progress, the EPA has determined that the remedy is operating properly and successfully.[27]

OU-2B

OU-2B is a formerly industrialized area along Atlantic Avenue and includes IR Sites 3, 4, 11, and 21. The project site is located on the southwest portions of IR Sites 11 (Engine Test Cell) and 21 (Ship Fitting and Engine Repair). Excavation of contaminated soils (metals and solvents) in OU-2B has been completed. Two small areas within IR Sites 3 and 4, which are not located on the project site, have land use controls restricting residential use due to residual metals in soil. The Navy has completed initial efforts to remediate widespread solvent contamination in OU-2B groundwater, and is currently planning the additional necessary groundwater treatment. The solvent plume extends beneath the north portion of the project site. The following land use restrictions apply to the portions of OU-2B over the solvent plume and within a 100-foot buffer

[26] City of Alameda, 2016. Memo from City Manager to City Council Regarding Presentation on Status Report of Environmental Conditions and Clean-up at Alameda Point. February 2.

[27] Tetra Tech EM Incorporated, 2013. Final Finding of Suitability to Transfer for Former Naval Air Station Alameda. April 19.

zone around the plume: ground-floor residential use is prohibited and buildings require vapor intrusion control measures. Because the project does not involve any residential development, these land use restrictions do not apply to the project. Most of the petroleum contamination on OU-2B has been successfully cleaned up under the petroleum program. Active remediation of OU-2B is expected to be completed in 2021.[28]

Summary of Potential Impacts from Hazardous Materials Release Sites

Sediments in Seaplane Lagoon may contain relatively small amounts of radioluminescent paint that could pose a hazard to human health and the environment. To ensure that any Seaplane Lagoon dredging is protective of human health and the environment, the CERCLA Record of Decision for IR Site 17 is currently being revised to require future projects to implement a sediment management plan. However, because the project does not proposed to dredge or remove sediments from Seaplane Lagoon, radiological materials (if any) would pose a less-than-significant impact to human health and the environment.

Groundwater beneath the north and south portions of the project site may be contaminated by chlorinated solvents from OU-2B and IR Site 27, respectively. No soil contamination has been reported near the project's proposed parking lot; however, undocumented contamination from historical naval operations could be encountered. Therefore, the disturbance of soil and/or groundwater for landside development of the project site could pose a potentially significant impact to human health and the environment. As required under **Mitigation Measure 4.J-2** of the APP EIR, the project's construction specifications must incorporate the City's site management plan, which specifies protocols and requirements for excavating, stockpiling, and transporting of contaminated soils; managing contaminated groundwater; and responding to previously undocumented contamination. In addition, the project must comply with any land use controls associated with subsurface hazardous materials on the project site (if any), which are recorded under the City's Land Use Restriction Tracking Program (as required by **Mitigation Measure 4.J-7** of the APP EIR). Compliance with the City's site management plan and any land use controls would reduce the potential for known or unexpected residual contamination to impact human health and/or the environment to a less-than-significant level.

In summary, as described above, the previously adopted mitigation measures that are applicable would be implemented as part of the proposed project.

Conclusions

Based on an examination of the analysis, findings, and conclusions of the APP EIR, and on the discussion above, development of the Seaplane Lagoon Ferry Terminal would not result in new impacts that were not identified in the APP EIR or substantially more severe significant impacts relating to hazards or hazardous materials than identified in the APP EIR.

[28] City of Alameda, 2016. Memo from City Manager to City Council Regarding Presentation on Status Report of Environmental Conditions and Clean-up at Alameda Point. February 2.

XI. AESTHETICS

Would the project:	Equal or Less Severity of Impact than Previously Identified in APP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR	New Significant Impact
a) Have a substantial adverse effect on a scenic vista;	■	❒	❒
b) Substantially damage scenic resources within a state scenic highway;	■	❒	❒
c) Substantially degrade the existing visual character or quality of the site and its surroundings; or	■	❒	❒
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.	■	❒	❒

Analysis, Findings, and Conclusions of the APP EIR

The APP EIR addressed development of the APP including the Seaplane Lagoon Ferry Terminal and determined that the APP would have less-than-significant project-level and cumulative impacts on visual quality related to effects on scenic vistas, scenic resources, or the existing visual character of the project site. In addition, the APP EIR determined that development of the APP, which could result in potentially significant new sources of light and glare, would be reduced to less-than-significant levels by implementation of **Mitigation Measure 4.K-4** (Lighting Mitigation), requiring that all lighting installations be designed and installed to be fully shielded (full cutoff), and to minimize glare and obtrusive light by limiting outdoor lighting.

Views of the project area are not sensitive, nor are there any officially designated scenic highways in or near the project site. The APP EIR determined that buildout of Alameda Point would create a generally beneficial aesthetic impact compared to existing conditions, by renovating or removing many vacant deteriorating buildings, eliminating open expanses of pavement, creating a greater continuity of land use, and introducing new public views and park and recreation areas to new residents and employees.

Proposed Ferry Terminal

The APP EIR included an analysis of the potential aesthetic impacts resulting from the development of the Seaplane Lagoon Ferry Terminal. The proposed ferry terminal is located in the southern portion of the Town Center and Waterfront sub-district, and would involve construction on both the landside and waterside of Seaplane Lagoon.

The ferry terminal landside construction would include a new parking lot, bus stop, and associated access facilities – all requiring safety lighting. Similarly, waterside construction for the terminal, including pier, ramps, gangway, and boarding float, would also require safety lighting. These impacts would be mitigated by the implementation of **Mitigation Measure 4.K-4**, which requires all lighting installations to be designed and installed to be fully shielded

(full cutoff), with the exception of specific uses for safety and where required by code. Further, the measure requires the location and design of all exterior lighting to be shown on any site plan submitted to the City for approval.

In summary, as described above, the previously adopted mitigation measures that are applicable would be implemented as part of the proposed project.

Conclusions

Based on an examination of the analysis, findings, and conclusions of the APP EIR, and on the discussion above, development of the Seaplane Lagoon Ferry Terminal would not result in new impacts that were not identified in the APP EIR or substantially more severe significant aesthetic impacts than identified in the APP EIR.

XII. PUBLIC SERVICES AND RECREATION

	Equal or Less Severity of Impact than Previously Identified in APP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR	New Significant Impact
Would the project:			
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services: • Fire protection; • Police protection; • Schools; • Parks; and • Other public facilities	■	❒	❒
b) Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated;	■	❒	❒
c) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	■	❒	❒

Analysis, Findings, and Conclusions of the APP EIR

The APP EIR determined that the APP, including the Seaplane Lagoon Ferry Terminal, would have less-than-significant project-level and cumulative public services and recreation impacts related to physical deterioration of recreation facilities caused or accelerated by their increased use;

potential adverse physical effects on the environment from construction or expansion of recreation facilities; and potential substantial adverse physical impacts from construction of governmental facilities, such as those related to fire protection, police protection, schools, and parks. Therefore, no mitigation measures related to potential public services and recreation impacts were required.

Proposed Ferry Terminal

Per the APP EIR and the City of Alameda General Plan, Alameda Point is planned for growth. The approved plan for Alameda Point, along with the City's fiscal neutrality policy, would accommodate any increased demand for public services from development of the area without significant impact and no mitigation measures are required.

The project involves the construction of landside improvements to provide improved access for the ferry terminal, including a pedestrian pathway and bicycle cycle track, and bicycle parking. The project would improve access to Alameda Point recreation facilities by increasing transit links to the area and providing direct pedestrian access to the Bay Trail from the project.

Conclusions

Based on an examination of the analysis, findings, and conclusions of the APP EIR, and on the discussion above, development of the Seaplane Lagoon Ferry Terminal would not result in new impacts that were not identified in the APP EIR or substantially more severe significant impacts relating to public services or recreation than identified in the APP EIR.

XIII. UTILITIES AND SERVICE SYSTEMS

Would the project:	Equal or Less Severity of Impact than Previously Identified in APP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR	New Significant Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;	■	❒	❒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;	■	❒	❒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;	■	❒	❒
d) Have insufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;	■	❒	❒

XIII. UTILITIES AND SERVICE SYSTEMS

	Equal or Less Severity of Impact than Previously Identified in APP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in APP EIR	New Significant Impact
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;	■	❒	❒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or	■	❒	❒
g) Not comply with federal, state, and local statutes and regulations related to solid waste.			

Analysis, Findings, and Conclusions of the APP EIR

The APP EIR determined that, with implementation of **Mitigation Measure 4.M-5** (Solid Waste Management Plan), the APP, including the Seaplane Lagoon Ferry Terminal, would have less-than-significant project-level and cumulative utilities and service systems impacts related to the wastewater treatment requirements of the Regional Water Board; construction or expansion of wastewater or stormwater drainage facilities; water supplies, wastewater treatment capacity, or landfill capacity; and regulations related to solid waste.

East Bay Municipal Utility District (EBMUD) prepared a water supply assessment for the APP, which determined that the increased demand of 1.9 million gallons of water per day associated with the APP is accounted for in EBMUD's 2040 water demand projection. In addition, EBMUD's municipal wastewater treatment plant has enough excess dry weather flow capacity to accommodate the development analyzed in the APP EIR; however, it has inadequate wet weather capacity. The APP would replace the existing on-site wastewater collection system, including sewer lines, which would substantially reduce inflow and infiltration entering the system during wet weather conditions, and would help provide adequate wet weather capacity. As described in the APP EIR Project Description, development projects would be required to contribute to the funding of infrastructure improvements through the Alameda Point Infrastructure Fee Program, which has been codified in a Development Impact Fee Ordinance for Alameda Point (Ord. No. 3098 N.S., 7-15-2014).

The APP EIR estimated that the redevelopment of NAS Alameda would generate 416,666 cubic yards of debris from the deconstruction and demolition of existing buildings. Adequate landfill capacity exists to accept this waste. However, development projects would be required to implement **Mitigation Measure 4.M-5**.

Proposed Ferry Terminal

The project includes landside construction to provide improved access and parking facilities for the ferry terminal – including new roadway access to the terminal, a new parking lot, bus stop, bus turnaround, landscaped areas, pedestrian pathway and bicycle cycle track, and bicycle parking. Waterside improvements would include construction of the terminal, including a pier, ramps, gangway, and boarding float. These improvements are consistent with planned improvements for Alameda Point.

Utilities for landside improvements and for the ferry terminal would include electrical and mechanical utilities. Communication lines would be required and would be installed concurrently with other utilities. An emergency generator would be required. Water would be required for wash-down purposes on the float, gangway, and pier. No fire water is expected to be required on the float, but may be required on the pier subject to the local Fire Marshall.

The project would include demolition of the existing pier and minor excavation and demolition of the building foundation in the existing parking lot and site grading. Consistent with **Mitigation Measure 4.M-5**, the project would comply with the City's solid waste management plan for Alameda Point and applicable ordinances, and would develop a management plan to address on-site demolition, deconstruction, recycling, and reuse of construction materials.

In summary, as described above, the previously adopted mitigation measures that are applicable would be implemented as part of the proposed project.

Conclusions

Based on an examination of the analysis, findings, and conclusions of the APP EIR, and on the discussion above, development of the Seaplane Lagoon Ferry Terminal would not result in new impacts that were not identified in the APP EIR or substantially more severe significant impacts relating to system services or utilities than identified in the APP EIR.

ADDENDUM CONCLUSION

The proposed Seaplane Lagoon Ferry Terminal Project described in this Addendum would not require major revisions to the APP EIR due to new or substantially increased significant environmental effects. There have been no substantial changes with respect to the circumstances under which the project would be undertaken that would require major revisions of the APP EIR due to new or substantially increased significant environmental effects, and there has been no discovery of new information of substantial importance that would trigger or require major revisions to the APP EIR due to new or substantially increased significant environmental effects. Therefore, no subsequent or supplemental EIR is required prior to approval of the project as described in this Addendum.

Attachment A

Project-Specific Mitigation Monitoring and Reporting Program for Seaplane Lagoon Ferry Terminal

Attachment A

Project-Specific Mitigation Monitoring and Reporting Program for Seaplane Lagoon Ferry Terminal

The following table is a Mitigation Monitoring and Reporting Program (MMRP) for the Seaplane Lagoon Ferry Terminal, which was excerpted from the adopted MMRP for the Alameda Point Project (APP) and was prepared to assist in implementing the project. The Alameda Point MMRP was adopted at the time the City certified the *Alameda Point Project Environmental Impact Report*[1] (APP EIR) on February 4, 2014 in accordance with the California Environmental Quality Act (CEQA); therefore, all of the mitigation measures listed in Project-Specific MMRP have been previously adopted by the City and are part of the project. The City has prepared an Addendum to evaluate the potential adverse environmental effects that could result from the proposed project, and has determined that all of the project's adverse impacts were previously analyzed in the Alameda Point EIR. The City has determined that the project would not result in any new or substantially more severe significant impacts that were not already addressed in that EIR. However, as documented in the Addendum, several of the mitigation measures adopted as conditions of approval for the APP would apply to the proposed Seaplane Lagoon Ferry Terminal.

The Seaplane Lagoon Ferry Terminal MMRP contains all of the previously adopted APP mitigation measures that are applicable to the proposed project, and serves as a stand-alone MMRP for the Seaplane Lagoon Ferry Terminal. Implementation of the mitigation measures in this MMRP, which are also listed in the preceding Addendum, will be required to avoid or substantially reduce the severity of the applicable impacts identified in the APP EIR.

The Seaplane Lagoon Ferry Terminal MMRP identifies the monitoring and reporting requirements for each mitigation measure; the timing of mitigation implementation; and the agency or agencies with responsibility for monitoring and verifying the implementation of the mitigation measure. All entities involved in development and operation of the Seaplane Lagoon Ferry Terminal will need to implement all required mitigation measures during project construction or project implementation, as applicable. Confirmation of mitigation implementation will be determined in accordance with the Seaplane Lagoon Ferry Terminal MMRP.

[1] City of Alameda, *Alameda Point Project Environmental Impact Report*, SCH No. 2013012043, certified February 4, 2014.

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MITIGATION MEASURES APPLICABLE TO PROPOSED SEAPLANE LAGOON FERRY TERMINAL

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
C. Transportation and Circulation					
Mitigation Measure 4.C-1 (Construction Management Plan): The City shall require that project applicant(s) and construction contractor(s) develop a Construction Management Plan for review and approval by the Public Works Department prior to issuance of any permits. The Plan shall include at least the following items and requirements to reduce traffic congestion during construction: 1. A set of comprehensive traffic control measures shall be developed, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. 2. The Construction Management Plan shall identify haul routes for movement of construction vehicles that would minimize impacts on motor vehicle, bicycle, and pedestrian traffic, circulation, and safety, and specifically to minimize impacts, to the greatest extent possible, to streets in and around the Alameda Point project site. The haul routes shall be approved by the City. 3. The Construction Management Plan shall provide for notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures would occur. 4. The Construction Management Plan shall provide for monitoring surface streets used for haul routes so that any damage and debris attributable to truck hauling can be identified and corrected by the project applicant.	Project applicant and its contractor(s) obtain approval of Construction Management Plan and implement the plan during construction.	City of Alameda Public Works Department	Public Works Department must review and approve Construction Management Plan	Prior to issuance of building or grading permit(s); inspect during construction	
Mitigation Measure 4.C-2a (TDM Program): Prior to issuance of building permits for each development project at Alameda Point, the City of Alameda shall prepare, and shall require that the sponsor of the development project participate in implementation of, a Transportation Demand Management (TDM) program/plan for Alameda Point aimed at meeting the General Plan peak-hour trip reduction goals of 10 percent for residential development and 30 percent for commercial development.	Project applicant shall implement the Transportation Demand Management (TDM) program/plan prepared by the City of Alameda.	City of Alameda Community Development Department	City of Alameda Community Development Department shall require implementation of TDM program.	Prior to issuance of building permit(s)	Although it is the City of Alameda's responsibility to implement this measure, all Alameda Point project applicants will be required to participate in the Transportation Demand Management (TDM) program developed by the City.
Mitigation Measure 4.C-2b (Monitoring): Prior to issuance of the first building permits for any development project at Alameda Point, the City of Alameda shall adopt a Transportation Network Monitoring and Improvement Program to: 1) determine the cost of the transportation network improvements identified in this EIR; 2) identify appropriate means and formulas to collect fair share financial contributions from Alameda Point development; 3) monitor conditions at the locations that will be impacted by the redevelopment of Alameda Point; 4) monitor traffic generated by Alameda Point; and 5) establish the appropriate time to implement any necessary secondary physical improvements required in this EIR to minimize or eliminate significant transportation impacts prior to the impacts occurring at affected locations where a secondary impact mitigation is recommended.	City of Alameda shall require Project applicant to fund a fair-share of the total cost of the improvements, as stated in Mitigation Measure 4.C-2c, and, if determined necessary after implementation of Mitigation Measures 4.C-2a and 4.C-2b, the City shall be responsible for ensuring implementation of the improvements at the appropriate time.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and improvements at appropriate time.	Prior to issuance of building permit(s) for collection of funds for fair-share of total cost and prior to impact occurring for implementation of the improvements, if necessary	It is the City of Alameda's responsibility to implement this measure prior to issuance of a building permit for the first development project at Alameda Point. All Alameda Point project applicants will subsequently be required to pay the fair-share financial contribution identified during the implementation of Mitigation Measure 4.C-2b.
Mitigation Measure 4.C-2c (Otis/Fernside): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when and if required to avoid the impact or reduce its severity, shall implement the following improvements: • Remove the right turn island for the westbound approach on Otis Drive, add a dedicated right turn lane with approximately 50 feet of storage length, and move the westbound stop-bar upstream approximately 20 feet to accommodate the right turn lane storage length. Restripe Fernside Boulevard with two receiving lanes.	City of Alameda shall require Project applicant to fund a fair-share of the total cost of the improvements, as stated in Mitigation Measure 4.C-2c, and, if determined necessary after implementation of Mitigation Measures 4.C-2a and 4.C-2b, the City shall be responsible for ensuring implementation of the	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and improvements at appropriate time.	Prior to issuance of building permit(s) for collection of funds for fair-share of total cost and prior to impact occurring for implementation of the improvements, if necessary	**Applies to intersection of Fernside Boulevard/ Otis Drive** Although it is the City of Alameda's responsibility to implement this measure, all Alameda Point project applicants may be required to pay a fair-share financial contribution for this improvement, which will be

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
• Optimize signal timing.	improvements at the appropriate time.				determined during the City's implementation of Mitigation Measure 4.C-2b.
Mitigation Measure 4.C-2d (Jackson/Sixth): The City of Alameda shall implement Mitigation Measures 4.C-2a (TDM Program).	Project applicant shall implement TDM program	City of Alameda Community Development Department	City of Alameda Community Development Department shall require implementation of TDM program	Prior to issuance of building permit(s)	**Applies to intersection of Jackson/Sixth Streets** See Mitigation Measure 4.C-2a.
Mitigation Measure 4.C-2e (Brush/11th): The City of Alameda shall implement Mitigation Measures 4.C-2a (TDM Program).	Project applicant shall implement TDM program	City of Alameda Community Development Department	City of Alameda Community Development Department shall require implementation of TDM program.	Prior to issuance of building permit(s)	**Applies to intersection of Brush/11th Streets** See Mitigation Measure 4.C-2a.
Mitigation Measure 4.C-2f (23rd/Seventh): The City of Alameda shall implement Mitigation Measures 4.C-2a (TDM Program) and 4.C-2b (Monitoring).	Project applicant shall implement TDM program	City of Alameda Community Development Department	City of Alameda Community Development Department shall require implementation of TDM program.	Prior to issuance of building permit(s)	**Applies to intersection of 23rd Street and Seventh Street** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-2g (Main/Pacific Pedestrian): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, shall implement the following physical improvements: • change the signal timing to a two-phase timing plan (i.e., northbound and southbound move concurrently; then eastbound and westbound move concurrently); and optimize cycle length.	City of Alameda shall require Project applicant to fund a fair-share of the total cost of the improvements, as stated in Mitigation Measure 4.C-2g, and, if determined necessary after implementation of Mitigation Measures 4.C-2a and 4.C-2b, the City shall be responsible for ensuring implementation of the improvements at the appropriate time.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and improvements at appropriate time.	Prior to issuance of building permit(s) for collection of funds for fair-share of total cost and prior to impact occurring for implementation of the improvements, if necessary	**Applies to intersection of Main Street and Pacific Avenue** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-2h (Webster/Appezzato Parkway Pedestrian): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, shall optimize the signal timing during the p.m. peak hour.	City of Alameda shall require Project applicant to fund a fair-share of the total cost of signal optimization, as stated in Mitigation Measure 4.C-2h, and, if determined necessary after implementation of Mitigation Measures 4.C-2a and 4.C-2b, the City shall be responsible for ensuring implementation of the improvement at the appropriate time.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and improvement at appropriate time.	Prior to issuance of building permit(s) for collection of funds for fair-share of total cost and prior to impact occurring for implementation of the improvement, if necessary	**Applies to intersection of Webster Street and Appezzato Parkway** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-2i (Park/Otis Pedestrian): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, shall optimize the signal timing during the a.m. and p.m. and peak hours.	City of Alameda shall require Project applicant to fund a fair-share of the total cost of signal optimization, as stated in Mitigation Measure 4.C-2i, and, if determined necessary after implementation of Mitigation Measures 4.C-2a and 4.C-2b, the City shall be responsible for ensuring implementation of the improvement at the appropriate time.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and improvement at appropriate time.	Prior to issuance of building permit(s) for collection of funds for fair-share of total cost and prior to impact occurring for implementation of the improvement, if necessary	**Applies to intersection of Park Street and Otis Drive** See Mitigation Measures 4.C-2a and 4.C-2b.

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
Mitigation Measure 4.C-2j (Broadway/Tilden Pedestrian): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, shall optimize the signal timing during the a.m. and p.m. peak hours.	City of Alameda shall require Project applicant to fund a fair-share of the total cost of signal optimization, as stated in Mitigation Measure 4.C-2j, and, if determined necessary after implementation of Mitigation Measures 4.C-2a and 4.C-2b, the City shall be responsible for ensuring implementation of the improvement at the appropriate time.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and improvement at appropriate time.	Prior to issuance of building permit(s) for collection of funds for fair-share of total cost and prior to impact occurring for implementation of the improvement, if necessary	**Applies to intersection of Broadway and Tilden Way** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-2k (High/Fernside Pedestrian): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, shall optimize the signal timing during the p.m. peak hour.	City of Alameda shall require Project applicant to fund a fair-share of the total cost of signal optimization, as stated in Mitigation Measure 4.C-2k, and, if determined necessary after implementation of Mitigation Measures 4.C-2a and 4.C-2b, the City shall be responsible for ensuring implementation of the improvement at the appropriate time.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and improvement at appropriate time.	Prior to issuance of building permit(s) for collection of funds for fair-share of total cost and prior to impact occurring for implementation of the improvement, if necessary	**Applies to intersection of High Street and Fernside Boulevard** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-2l (Atlantic/Constitution Pedestrian): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, shall implement the following physical improvements: • modify the phasing sequence, and • optimize the signal timing.	City of Alameda shall require Project applicant to fund a fair-share of the total cost of the improvements, as stated in Mitigation Measure 4.C-2l, and, if determined necessary after implementation of Mitigation Measures 4.C-2a and 4.C-2b, the City shall be responsible for ensuring implementation of the improvements at the appropriate time.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and improvements at appropriate time	Prior to issuance of building permit(s) for collection of funds for fair-share of total cost and prior to impact occurring for implementation of the improvements, if necessary	**Applies to intersection of Atlantic Avenue and Constitution Way** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-2m (Stargell Avenue Bike): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, shall construct a Class I or Class II bicycle facility between Main Street and Webster Street.	City of Alameda shall require Project applicant to fund a fair-share of the total cost of the improvements, as stated in Mitigation Measure 4.C-2m, and, if determined necessary after implementation of Mitigation Measures 4.C-2a and 4.C-2b, the City shall be responsible for ensuring implementation of the improvement at the appropriate time.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and improvement at appropriate time	Prior to issuance of building permit(s) for collection of funds for fair-share of total cost and prior to impact occurring for implementation of the improvements, if necessary	**Applies to Stargell Avenue** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-2n (Main Street Bike): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, shall implement the following physical improvements: • construct a Class II bicycle lane or improve the existing Class I bicycle path on the west side of the street between Appezzato Parkway and Pacific Avenue to current City standards; • provide connectivity to existing Class I bicycle path on the east and	City of Alameda shall require Project applicant to fund a fair-share of the total cost of the improvements, as stated in Mitigation Measure 4.C-2n, and, if determined necessary after implementation of Mitigation Measures 4.C-2a and 4.C-2b, the City shall be responsible for ensuring implementation of the	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and improvements at appropriate time	Prior to issuance of building permit(s) for collection of funds for fair-share of total cost and prior to impact occurring for implementation of the improvements, if necessary	**Applies to Main Street** See Mitigation Measures 4.C-2a and 4.C-2b.

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
west sides of the street north of Appezzato Parkway. Appropriate intersection treatments for connectivity may include striping, signage, and/or bicycle boxes at the intersection of Main Street and Appezzato Parkway; and • if Mitigation Measure 4.C-4c (described below) is implemented, provide connectivity to that bicycle facilities on west side of the street north of the Main Street-Pacific Street intersection.	improvements at the appropriate time.				
Mitigation Measure 4.C-2o (Central Avenue Bike): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, shall use its best efforts to implement the following physical improvements: • construct a Class II bicycle lane or improve the existing Class I bicycle path on the west (south) side of the street between the Main Street-Pacific Street intersection and Lincoln Avenue to current City standards; • extend a Class I bicycle path to Third Street; and • restripe and sign the street segment between Third Street and Fourth Street to provide Class II bicycle lanes between Lincoln Avenue and Fourth Street.	City of Alameda shall require Project applicant to fund a fair-share of the total cost of the improvements, as stated in Mitigation Measure 4.C-2o, and, if determined necessary after implementation of Mitigation Measures 4.C-2a and 4.C-2b, the City shall be responsible for ensuring implementation of the improvements at the appropriate time.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and improvements at appropriate time	Prior to issuance of building permit(s) for collection of funds for fair-share of total cost and prior to impact occurring for implementation of the improvements, if necessary	**Applies to Central Avenue** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5a (Park/Clement): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, fund a fair share contribution to implement the following physical improvements: • Add northbound left turn pocket along Park Street; • Optimize the signal offsets and splits; and • Complete the Clement Avenue extension, which would reduce the demand for left turn movements onto Park Street from eastbound traffic on Clement Avenue.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvements (as stated in Mitigation Measure 4.C-5a) attributable to the project.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds. The northbound left-turn pocket along Park Street will be completed by ACTC as part of the I-880/23rd/29th Street project.	Prior to issuance of building permit(s)	**Applies to intersection of Park/Clement** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5b (Park/Encinal): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, fund a fair share contribution to implement the following improvement: • Optimize offsets and splits.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvement (as stated in Mitigation Measure 4.C-5b) attributable to the project.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds.	Prior to issuance of building permit(s)	**Applies to intersection of Park/Clement** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5c: (Broadway/Otis): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, fund a fair share contribution to implement, the following improvement: • Optimize the signal timing during both peak hours.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvement (as stated in Mitigation Measure 4.C-5c) attributable to the project.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds.	Prior to issuance of building permit(s)	**Applies to intersection of Broadway/Otis** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5d: (Tilden/Blanding/Fernside): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, fund a fair share contribution to implement the following improvement: • Optimize the offsets and splits.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvement (as stated in Mitigation Measure 4.C-5d)	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of	Prior to issuance of building permit(s)	**Applies to intersection of Tilden/Blanding/Fernside** See Mitigation Measures 4.C-2a and 4.C-2b.

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
	attributable to the project.		funds.		
Mitigation Measure 4.C-5e (High/Fernside): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, fund a fair share contribution to implement the following improvements: • Adjust the signal cycle phasing during the a.m. and p.m. peak hours such that the southbound left turn from High Street is a permitted rather than protected movement; and • Optimize signal timing.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvements (as stated in Mitigation Measure 4.C-5e) attributable to the project.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds.	Prior to issuance of building permit(s)	**Applies to intersection of High/Fernside** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5f (High/Otis): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, fund a fair share contribution to implement the following improvements: • Optimize the signal timing at High and Otis for both peak hours, and • Install traffic calming strategies on Bayview Drive to include improvements, such as: restriping Bayview Drive to create narrower driving lanes to reduce speeding, installing a cross walk and caution sign at the location of the public coastal access easement, and/or construction of sidewalk bulb-outs to improve pedestrian safety at the intersections of Bayview/Court Street and Bayview/Broadway.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvements (as stated in Mitigation Measure 4.C-5f) attributable to the project.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds.	Prior to issuance of building permit(s)	**Applies to intersection of High/Otis** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5g (Island Drive/Otis Drive and Doolittle Drive): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, fund a fair share contribution to implement the following improvement: • Optimize signal timing during both peak hours.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvement (as stated in Mitigation Measure 4.C-5g) attributable to the project.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds.	Prior to issuance of building permit(s)	**Applies to intersection of Island Drive/Otis Drive and Doolittle Drive** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5h (Fernside Boulevard and Otis Drive): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and implement Mitigation Measure 4.C-2c (Otis/Fernside), and fund a fair share contribution to add a westbound right-turn overlap phase from Fernside Boulevard.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a, 4.C-2b, and 4.C-2c, and fund a fair-share of the portion of the cost of the improvement (as stated in Mitigation Measure 4.C-5h) attributable to the project.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, Mitigation Measure 4.C-2c (if necessary), and collection of fair-share of funds.	Prior to issuance of building permit(s)	**Applies to intersection of Fernside Boulevard/Otis Drive** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5i (Park/Blanding). The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and C-2b) and, when required to avoid the impact or reduce its severity, fund a fair share contribution to implement the following improvements: • Change east-west signal phasing to protected phasing; and • Optimize signal timing during both peak hours.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvement (as stated in Mitigation Measure 4.C-5i) attributable to the project.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds	Prior to issuance of building permit(s)	**Applies to intersection of Park/Blanding** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5j (Challenger/Atlantic): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and 4.C-2b) and, when required to avoid the impact or reduce its severity, a fairshare to contribution optimize signal timing during the p.m. peak hour.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvement (as stated in Mitigation Measure 4.C-5j)	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of	Prior to issuance of building permit(s)	**Applies to intersection of Challenger/Atlantic** See Mitigation Measures 4.C-2a and 4.C-2b.

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
	attributable to the project.		funds		
Mitigation Measure 4.C-5k (Park/Lincoln): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and 4.C-2b) and, when required to avoid the impact or reduce its severity, the City shall fund a fairshare to optimize signal timing during the p.m. peak hour.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvement (as stated in Mitigation Measure 4.C-5k) attributable to the project,	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds	Prior to issuance of building permit(s)	**Applies to intersection of Park/Lincoln** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5l (Jackson/Sixth): The City of Alameda shall implement TDM (Mitigation Measure 4.C-2a).	Project applicant shall implement TDM program.	City of Alameda Community Development Department	City of Alameda Community Development Department shall require implementation of TDM program	Prior to issuance of building permit(s)	**Applies to intersection of Jackson/Sixth** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5m (Webster/Eighth): The City of Alameda shall implement TDM (Mitigation Measure 4.C-2a).	Project applicant shall implement TDM program.	City of Alameda Community Development Department	City of Alameda Community Development Department shall require implementation of TDM program	Prior to issuance of building permit(s)	**Applies to intersection of Webster/Eighth** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5n (Broadway/Fifth): The City of Alameda shall implement TDM (Mitigation Measure 4.C-2a).	Project applicant shall implement TDM program.	City of Alameda Community Development Department	City of Alameda Community Development Department shall require implementation of TDM program.	Prior to issuance of building permit(s)	**Applies to intersection of Broadway/Fifth** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5o (Brush/12th): The City of Alameda shall implement TDM (Mitigation Measure 4.C-2a).	Project applicant shall implement TDM program.	City of Alameda Community Development Department	City of Alameda City of Alameda Community Development Department shall require implementation of TDM program.	Prior to issuance of building permit(s)	**Applies to intersection of Brush/12th** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5p (High/Oakport): The City of Alameda shall implement TDM and Monitoring (Mitigation Measure 4.C-2a and 4.C-2b) and work with the City of Oakland to optimize the signal timing to allow for more green time for northbound traffic.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvement (as stated in Mitigation Measure 4.C-5p) attributable to the project.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds.	Prior to issuance of building permit(s)	**Applies to intersection of High/Oakport** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5q (High/Coliseum): The City of Alameda shall implement TDM and Monitoring (Mitigation Measure 4.C-2a and 4.C-2b) and work with the City of Oakland to optimize the signal timing.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvement (as stated in Mitigation Measure 4.C-5q) attributable to the project.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds.	Prior to issuance of building permit(s)	**Applies to intersection of High/Coliseum** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5r (29th/Ford): The City of Alameda shall implement TDM (Mitigation Measure 4.C-2a).	Project applicant shall implement TDM program.	City of Alameda Community Development Department	City of Alameda Community Development Department shall require implementation of TDM program.	Prior to issuance of building permit(s)	**Applies to intersection of 29th/Ford** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5s (23rd Ave./Seventh St.): The City of Alameda shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and 4.C-2b) and work with the City of Oakland to modify the northbound to provide a separate left – turn lane and a shared through-right-turn lane, and optimize the signal.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvement (as stated in Mitigation Measure 4.C-5s)	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of	Prior to issuance of building permit(s)	**Applies to intersection of 23rd Ave./Seventh St.** See Mitigation Measures 4.C-2a and 4.C-2b.

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
	attributable to the project.		funds		
Mitigation Measure 4.C-5t (Main/Pacific Pedestrian): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and 4.C-2b) and, when required to avoid the impact or reduce its severity, fund a fairshare contribution to change signal timing to two-phase timing plan (i.e., northbound and southbound move concurrently; then eastbound and westbound move concurrently) and optimize cycle length.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvements (as stated in Mitigation Measure 4.C-5t) attributable to the project.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds.	Prior to issuance of building permit(s)	**Applies to intersection of Main/Pacific** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5u (Webster/Appezzato Pedestrian): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and 4.C-2b) and, when required to avoid the impact or reduce its severity, fund a fair share contribution to optimize signal timing.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvement (as stated in Mitigation Measure 4.C-5u) attributable to the project.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds.	Prior to issuance of building permit(s)	**Applies to intersection of Webster/Appezzato** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5v (High/Fernside Pedestrian): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and 4.C-2b) and Mitigation Measure 4.C-5e (optimize signal timing during the p.m. peak hour).	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a, 4.C-2b, and 4.C-5e.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds.	Prior to issuance of building permit(s)	**Applies to intersection of High/Fernside** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5w (Appezzato/Constitution Pedestrian): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and 4.C-2b) and, when required to avoid the impact or reduce its severity, fund a fair share contribution to implement the following improvements: • Modify phasing sequence; and • Optimize the signal timing.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvements (as stated in Mitigation Measure 4.C-5w) attributable to the project.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds	Prior to issuance of building permit(s)	**Applies to intersection of Appezzato/Constitution** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5x (Park Street Transit): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and 4.C-2b) and, when required to avoid the impact or reduce its severity, fund a fair share contribution to implement the following improvements: • Provide transit signal priority at intersections along this corridor; and • Optimize splits at the Park Street and Blanding Avenue intersection during a.m. and p.m. peak hours.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvements (as stated in Mitigation Measure 4.C-5x) attributable to the project.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds.	Prior to issuance of building permit(s)	**Applies to Park Street** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5y (Appezzato Parkway Transit): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and 4.C-2b) and, when required to avoid the impact or reduce its severity, fund a fair share contribution to implement the following improvements: • Install transit signal priority at intersections along this corridor; • Optimize cycle length at the Appezzato Parkway and Webster Street intersection during a.m. and p.m. peak hours and provide signal priority; and • Establish exclusive transit lanes or queue jump lanes from Alameda Point to Webster Street.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvements (as stated in Mitigation Measure 4.C-5y) attributable to the project.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds	Prior to issuance of building permit(s)	**Applies to Appezzato Parkway** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5z (Stargell Avenue Transit): The City shall implement	City of Alameda shall require Project	City of Alameda	City of Alameda Community	Prior to issuance of building	**Applies to Stargell Avenue**

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
TDM and Monitoring (Mitigation Measures 4.C-2a and 4.C-2b) and, when required to avoid the impact or reduce its severity, implement the following improvements: • Provide westbound queue jump lanes on Willie Stargell Avenue at Main Street or construct exclusive transit lanes on Willie Stargell Avenue; • Install transit signal priority at intersections along this corridor; and • Optimize cycle length at the Main Street and Willie Stargell Avenue intersection during a.m. and p.m. peak hours.	applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvements (as stated in Mitigation Measure 4.C-5z) attributable to the project.	Community Development Department	Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds	permit(s)	See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-5zi (Stargell Avenue Bike): The City shall implement Mitigation Measure 4.C-2m (Stargell Avenue bike path).	See Mitigation Measure 4.C-2m, above.				
Mitigation Measure 4.C-5zii: The City shall implement Mitigation Measure 4.C-2n (Main Street bicycle improvements).	See Mitigation Measure 4.C-2n, above.				
Mitigation Measure 4.C-5ziii (Central Avenue Bike): The City shall implement Mitigation Measure 4.C-2o (Central Avenue bicycle improvements).	See Mitigation Measure 4.C-2o, above.				
Mitigation Measure 4.C-5ziv (Oak Street Bike): The City shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and 4.C-2b) and, when required to avoid the impact or reduce its severity, fund a fair share contribution to implement the completion of a bicycle boulevard with appropriate signage and striping along Oak Street from Blanding Avenue to Encinal Avenue to advise motorists and bicyclists to share the street.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and fund a fair-share of the portion of the cost of the improvements (as stated in Mitigation Measure 4.C-5ziv) attributable to the project.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and collection of fair-share of funds	Prior to issuance of building permit(s)	**Applies to Oak Street** See Mitigation Measures 4.C-2a and 4.C-2b.
Mitigation Measure 4.C-9 (Chinatown Pedestrians): The City of Alameda shall implement TDM and Monitoring (Mitigation Measures 4.C-2a and 4.C-2b) and shall continue to work with the City of Oakland, the ACTC, and Caltrans, to evaluate and implement measures to reduce or divert the volume of traffic that travels through Oakland Chinatown to and from Alameda Point and other City of Alameda destinations.	City of Alameda shall require Project applicant to implement Mitigation Measures 4.C-2a and 4.C-2b, and coordinate with the City of Oakland, the ACTC, and Caltrans to evaluate and then implement measures that reduce/divert volume of traffic that travels through Oakland Chinatown to and from Alameda Point and other City of Alameda destinations.	City of Alameda Community Development Department	City of Alameda Community Development Department shall monitor to ensure implementation of TDM Program, Monitoring, and continue coordination with the City of Oakland, the ACTC, and Caltrans.	Prior to issuance of building permit(s)	See Mitigation Measures 4.C-2a and 4.C-2b.
D. Cultural and Paleontological Resources					
Mitigation Measure 4.D-1a (Historic Preservation Ordinance): The City shall implement the requirements of the Historic Preservation Ordinance, which requires a certificate of approval by the HAB for modifications to contributors and resources within the Historic District. As part of the certificate of approval process, project sponsors shall provide: 1) An analysis of the proposal's conformity with the *Guide to Preserving the Character of the Naval Air Station Alameda Historic District* as adopted and amended by the City Council; 2) An analysis of the proposal's conformity with general management and design guidelines contained within the NAS Alameda Cultural Landscape Report (JRP, 2012), including application of the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*. These include special treatments organized by functional area for such topics as spatial organization, topography, vegetation, views and vistas, circulation, as well as structures, furnishings and objects; and 3) An analysis of impacts to the integrity of the Historic District, as a whole, and an analysis of alternatives to avoid potential impacts on the Historic District as a whole, and on an individual resource	Project applicant shall conduct analyses listed to comply with the Historic Preservation Ordinance.	City of Alameda Community Development Department	City of Alameda's Historical Advisory Board (HAB) shall verify completion of analyses.	During the certificate of approval process	Water-Connected Projects: In addition to all projects located in the Historic District, this mitigation measure also applies to projects located adjacent to Seaplane Lagoon.

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
Mitigation Measure 4.D-2 (Archaeological Resources): If cultural resources are encountered, all activity within 100 feet of the find shall halt until it can be evaluated by a qualified archaeologist and a Native American representative. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. If the archaeologist and Native American representative determine that the resources may be significant, they shall notify the City of Alameda and shall develop an appropriate treatment plan for the resources. The archaeologist shall consult with Native American monitors or other appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature. In considering any suggested measures proposed by the archaeologist and Native American representative in order to mitigate impacts to cultural 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 infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project area while mitigation for cultural resources is being carried out. Pursuant to CEQA Guidelines Section 15126(b), *Mitigation Measures Related to Impacts on Historical Resources*, the City of Alameda will, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered for a project involving an archaeological site: A. Preservation in place is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site. B. Preservation in place may be accomplished by, but is not limited to, the following: 1. Planning construction to avoid archaeological sites; 2. Incorporation of sites within parks, greenspace, or other open space; 3. Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site. 4. Deeding the site into a permanent conservation easement. C. When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation. D. Data recovery shall not be required for an historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the determination is documented in the EIR and	Project applicant and its contractor(s) shall halt work and notify archaeologist and Native American representative if materials are discovered. Archaeologist and Native American representative shall conduct independent review and prepare treatment plan, if necessary. Project applicant or its contractor(s) shall implement treatment plan and mitigate impacts pursuant to CEQA Guidelines.	City of Alameda Community Development Department	If resources are encountered, verify work is suspended and review and approve the treatment and monitoring plan if archaeological materials are discovered	If resources encountered, review of treatment and monitoring plan prior to continuation of construction	

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
that the studies are deposited with the California Historical Resources Regional Information Center.					
Mitigation Measure 4.D-3 (Paleontological Resources): If paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions are discovered during ground-disturbing construction activities, all such activities within 100 feet of the find shall be halted until a qualified paleontologist can assess the significance of the find and, if necessary, develop appropriate salvage measures in consultation with the City of Alameda and in conformance with Society of Vertebrate Paleontology Guidelines (SVP, 1995; SVP, 1996).	Project applicant and its contractor(s) shall halt construction within 100 feet of paleontological resources Project applicant shall retain a paleontologist to assess significance of resources and develop salvage measures, if necessary Project applicant shall incorporate measures upon continuation of construction	City of Alameda Community Development Department	Consult paleontologist in development of appropriate salvage measures for any paleontological resources found	If resources encountered, review of treatment and monitoring plan prior to continuation of construction	
Mitigation Measure 4.D-4 (Human Remains): In the event of discovery or recognition of any human remains during construction activities, such activities within 100 feet of the find shall cease. The Alameda County Coroner shall be contacted immediately. If the remains are determined to be Native American, and no investigation of the cause of death is required, the Native American Heritage Commission (NAHC) will be contacted within 24 hours. The NAHC will identify and contact the person or persons it believes to be the "most likely descendant (MLD)" of the deceased Native American, who in turn would make recommendations for the appropriate means of treating the human remains and any grave goods.	Project applicant and its contractor(s) shall halt work and notify coroner and City of Alameda Community Development Department if remains are discovered NAHC shall assign most likely descendant Project applicant and its contractor(s) shall hire archaeologist and cease work if site is a Native American Cemetery	City of Alameda Community Development Department; NAHC; County Coroner	Contact City, NAHC, or County Coroner if human remains are encountered	Ongoing	
Mitigation Measure 4.D-5: Implement Mitigation Measure 4.D-1.	See Mitigation Measure 4.D-1.				
Mitigation Measure 4.D-6: Implement Mitigation Measures 4.D-2, -3, and -4.	See Mitigation Measures 4.D-2, 4.D-3, and 4.D-4.				
E. Biological Resources					
Mitigation Measure 4.E-1a (Sound Attenuation Monitoring Plan): Prior to the start of marina or ferry terminal construction, the City shall require a NMFS-approved sound attenuation monitoring plan to protect fish and marine mammals, if pile driving is planned for the Seaplane Lagoon. This plan shall provide detail on the sound attenuation system, detail methods used to monitor and verify sound levels during pile driving activities, and describe management practices to be taken to reduce impact hammer pile-driving sound in the marine environment to an intensity level of less than 183 dB. The sound monitoring results shall be made available to the NMFS. The plan shall incorporate, but not be limited, to the following best management practices (BMPs): • To the extent feasible, all pilings shall be installed and removed with vibratory pile drivers only. Vibratory pile driving will be conducted following the Corps' "*Proposed Procedures for* Permitting *Projects that will Not Adversely Affect Selected Listed Species in California*". USFWS and NOAA completed Section 7 consultation on this document, which establishes general procedures for minimizing impacts to natural resources associated with projects in or adjacent to jurisdictional waters. • An impact pile driver may only be used where necessary to complete installation of larger steel pilings in accordance with seismic safety or other engineering criteria • The hammer shall be cushioned using a 12-inch thick wood cushion	Project applicant shall create a NMFS-approved sound attenuation monitoring plan. Project applicant shall implement plan and record monitoring results.	City of Alameda Community Development Department	Verify completion of plan and monitor throughout construction. Ensure that monitoring results get submitted to NMFS.	Prior to start of marina or ferry terminal construction	*Although this mitigation measure applies primarily to marina or ferry terminal projects, it would also apply to any project that entails pile driving within Seaplane Lagoon.

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
block during all impact hammer pile driving operations • All piling installation using impact hammers shall be conducted between June 1 and November 30, when the likelihood of sensitive fish species being present in the work area is minimal • If pile installation using impact hammers must occur at times other than the approved work window, the project applicant shall obtain incidental take authorization from NMFS and CDFW, as necessary, to address potential impacts on steelhead trout, chinook salmon, and Pacific herring and implement all requested actions to avoid impacts • The project applicant shall monitor and verify sound levels during pile driving activities. The sound monitoring results will be made available to NMFS and the City • In the event that exceedance of noise thresholds established and approved by NMFS occurs, a contingency plan involving the use of bubble curtains or air barrier shall be implemented to attenuate sound levels to below thresholds					
Mitigation Measure 4.E-1b (NMFS and CDFW Consultation): During the project permitting phase, the City will ensure that any projects requiring in-water work include consultation with NMFS to determine if the work can be covered under one of the programmatic consultations for federally listed species described above or if a project-level BO would be required and whether an Incidental Harassment Authorization (IHA) for marine mammals would be needed for dredging or pile driving activities. The project applicant shall also consult with CDFW regarding State special-status fish and the potential need for an incidental take permit (ITP). The project applicant shall submit to the City copies of any IHA and/or ITP received or, alternatively, copies of correspondence confirming that an IHA and/or ITP is not required for the project in question.	Project applicant shall consult with NMFS if project requires in-water work. Project applicant shall consult with CDFW regarding potential need for an ITP. Project applicant shall submit copies of any IHA and/or ITP to the City or confirm that they are not required.	City of Alameda Community Development Department; NMFS; CDFW	Confirm consultation with NMFS and CDFW.	During the project permitting phase, prior to construction.	Although it is anticipated that this mitigation measure would apply only to marina or ferry terminal projects, it would also apply to any other proposal that would require pile driving and/or construction of docks within Seaplane Lagoon or San Francisco Bay.
Mitigation Measure 4.E-1c (Additional Noise Attenuation Measures): As part of the NMFS-approved sound attenuation monitoring plan required for pile driving in the Seaplane Lagoon in Mitigation Measure 4.E-1a, the City shall ensure that the project applicant implements the following actions in addition to those listed in Mitigation Measure 4.E-1a to reduce the effect of underwater noise transmission on marine mammals. These actions shall include at a minimum: • Establishment of a 1,600-foot (500-meter) safety zone that shall be maintained around the sound source, for the protection of marine mammals in the event that sound levels are unknown or cannot be adequately predicted • Work activities shall be halted when a marine mammal enters the 1,600-feet (500-meter) safety zone and resume only after the animal has been gone from the area for a minimum of 15 minutes • A "soft start" technique shall be employed in all pile driving to marine mammals an opportunity to vacate the area • Maintain sound levels below 90 dBA in air when pinnipeds (seals and sea lions) are present • A NMFS-approved biological monitor will conduct daily surveys before and during impact hammer pile driving to inspect the work zone and adjacent Bay waters for marine mammals. The monitor will be present as specified by NMFS during the impact pile-driving phases of construction	Project applicant shall implement the listed actions to reduce the effects of underwater noise transmission. Project applicant shall hire a NMFS-approved biological monitor to conduct daily surveys.	City of Alameda Community Development Department, NMFS	NMFS will review and the sound attenuation monitoring plan and approve the biological monitor that would conduct daily surveys before and during impact hammer pile driving work. City will ensure implementation of the listed actions and daily surveys described in Measure 4.E-1c along with those listed in Measure 4.E-1a.	Prior to construction	Although it is anticipated that this mitigation measure would apply only to marina or ferry terminal projects, it would also apply to any other proposal that would require pile driving and/or construction of docks within Seaplane Lagoon or San Francisco Bay.

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
Mitigation Measure 4.E-1d (Dock Lighting): Prior to occupancy, the City shall ensure that the project applicant installs dock lighting on all floating docks that minimizes artificial lighting of Bay waters by using shielded, low-mounted, and low light-intensity fixtures and bulbs.	Project applicant shall include dock lighting measures in construction plans and specifications.	City of Alameda Community Development Department	Review construction plans and specifications to ensure it includes dock lighting requirements. Inspect light fixtures to ensure lighting meets requirements stated in Measure 4.E-1d.	Prior to construction and after construction.	Although it is anticipated that this mitigation measure would apply only to marina or ferry terminal projects, it would also apply to any other proposal that would require construction of docks within Seaplane Lagoon or San Francisco Bay.
Mitigation Measure 4.E-2a (Native Oysters and Eelgrass): Prior to marina or ferry terminal construction, the City shall ensure that the project applicant conducts a pre-construction survey to determine if native oysters and eelgrass are present in Seaplane Lagoon. • The eelgrass survey shall be conducted according to the methods contained in the California Draft Eelgrass Mitigation Policy (CDEMP) (NMFS 2011), with the exception that the survey shall be conducted with 120 days (rather than 60 days, as recommended in the CDEMP) prior to the desired construction start date, to allow sufficient time for modification of project plans (if feasible) and agency consultation. • If found within or immediately adjacent to the construction footprint, the project applicant shall first determine whether avoidance of the beds is feasible. If feasible, impacts to the oyster or eelgrass bed shall be avoided. If complete avoidance is not feasible, the applicant shall request guidance from the National Marine Fisheries Service (or other applicable agency) as to the need and/or feasibility to move affected beds. Any translocation of eelgrass beds shall be conducted consistent with the methods described in the CDEMP and/or those described in Eelgrass Conservation in San Francisco Bay: Opportunities and Constraints (Boyer and Wyllie-Echeverria, 2010). Translocation of oyster beds shall be consistent with methods and recommendations presented in Shellfish Conservation and Restoration in San Francisco Bay: Opportunities and Constraints (Zabin et al., 2010) • If it is not possible to translocate oyster or eelgrass beds then the City shall ensure that the project applicant provides compensatory mitigation consistent with the CDEMP for eelgrass (a ratio of 3.01:1 [transplant area to impact area]) and a minimum 1:1 ratio for oyster beds. • The relocation of compensatory mitigation site for eelgrass or oyster beds shall be located within San Francisco Bay.	Project applicant shall conduct a pre-construction survey to determine if native oysters and eelgrass are present in Seaplane Lagoon. Project applicant's survey shall follow the CDEMP methods. Project applicant shall assess if avoidance of the beds or translocation is feasible	City of Alameda Community Development Department	Review construction specifications to ensure inclusion of protective measures for Native Oysters and Eelgrass. Monitor to ensure completion of pre-construction survey. Monitor to ensure proper avoidance or translocation of Native Oysters and Eelgrass	Prior to construction	
Mitigation Measure 4.E-2c: (Invasive Species Control Plan) The City shall require that the project applicant develop and implement a Marine Invasive Species Control Plan prior to commencement of any in-water work including, but not limited to, construction of piers and seawalls, dredging, pile driving, and construction of new stormwater outfalls. The plan shall be prepared in consultation with the United States Coast Guard (USCG), RWQCB, and other relevant state agencies. Provisions of the plan shall include but not be limited to the following: • Environmental training of construction personnel involved in in-water work • Actions to be taken to prevent the release and spread of marine invasive species, especially algal species such as Undaria and Sargasso • Procedures for the safe removal and disposal of any invasive taxa observed on the removed structures prior to disposal or reuse of pilings, docks, wave attenuators, and other features • The onsite presence of qualified marine biologists to assist the contractor in the identification and proper handling of any invasive species on removed Port equipment or materials	Project applicant shall develop and implement a Marine invasive Species Control Plan during construction of in-water work. Project applicant will prepare a post-construction report and submit to the City, USCG, and RWQCB.	City of Alameda Community Development; USCG; RWQCB and other relevant state agencies	Review and approve Marine Invasive Species Control Plan. Ensure the provisions of the approved plan are implemented, including preparation of a post-construction.	Prior to issuance of building permit(s) and during construction	

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
• A post-construction report identifying which, if any, invasive species were discovered attached to equipment and materials following removal from the water, and describing the treatment/handling of identified invasive species. Reports shall be submitted to the City, as well as the USCG and the RWQCB if requested by the agencies.					
Mitigation Measure 4.E-3a: (Wetlands) Prior to issuance of final grading or building permits that include work within or in the vicinity of jurisdictional waters, the City shall confirm that the project applicant has obtained all necessary wetland permits and shall further ensure that the project applicant implements measures to avoid or minimize adverse effects on jurisdictional waters and sensitive natural communities. Specifically: • The existing wetlands in the Northwest Territories shall be preserved and incorporated into compatible open space uses to the maximum extent feasible. • Wetlands to be avoided shall be protected by setbacks throughout project construction. Based on recommendations in the Baylands Ecosystem Habitat Goals (Goals Project, 1999) a minimum 300-foot wetland buffer shall be incorporated into project design wherever possible to protect water quality and the wildlife that use the wetlands. Where existing uses preclude the establishment of a 300-foot or larger buffer-, the largest buffer possible shall be established. Buffer width should be determined by considering the quality of the wetlands, actual or potential wildlife use, existing and proposed future uses, amount and type of vegetation within the buffer, and angle and direction of slope in proximity to the wetland (McElfish et al., 2008). Open space uses shall incorporate these buffers in the siting of recreational trails and development of facilities to ensure the wetlands and the wildlife that use them are adequately buffered from recreational uses. • During project construction, areas to be avoided and provided with setbacks pursuant to the provisions described above shall be further protected by best management practices (BMPs), as described in Mitigation Measure 4.E-3b, below. Such measures shall include the installation of silt fencing, straw wattles, or other appropriate erosion and sediment control methods or devices along roads and at the 100-foot setback limits. To minimize impacts on wetlands and other waters, equipment such as backhoes and cranes used for installation of rip-rap or other shore stabilization measures along the Bay shoreline shall operate from dry land where possible. Any construction operations within Bay waters shall be barge-mounted or use other water-based equipment such as scows, derrick barges, and tugs.	Project applicant shall obtain all necessary wetland permits. Project applicant shall implement measures to avoid or minimize adverse effects on jurisdictional waters and sensitive natural communities. Project applicant will implement measures to avoid or minimize adverse effects on jurisdictional waters and sensitive natural communities as identified in Mitigation Measure 4.E-3a.	City of Alameda Community Development Department	Confirm all necessary wetland permits have been obtained. Ensure implementation of measures to avoid sensitive natural communities.	Prior to issuance of final grading or building permit(s) and during construction.	
Mitigation Measure 4.E-3b: (BMPs for Wetlands) Standard BMPs shall be employed to avoid degradation of aquatic habitat and wetlands by maintaining water quality and controlling erosion and sedimentation during construction as required by compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit for Construction Activities (see also Section 4.H, *Hydrology and Water Quality*, of this EIR, which addresses impacts on water quality). BMPs shall include, but not be limited to, the following: (1) installing silt fencing between wetlands and aquatic habitat and construction-related activities, (2) locating fueling stations away from potentially jurisdictional features, and (3) otherwise isolating construction work areas from any identified jurisdictional features. In addition, BMPs to avoid impacts on water quality resulting from dredging or other activities within open waters that are identified in the *Long-term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region* (LTMS) (Corps, 2001) shall be implemented. These BMPs include silt fencing and gunderbooms or other appropriate methods for keeping dredged materials or other	Project applicant shall comply with the NPDES General Permit for Construction through implementation of BMPs described in Mitigation Measure 4.E-3b.	City of Alameda Community Development Department	Ensure that Project applicant implements applicable BMPs and complies with NPDES General Permit.	During construction	Although implementation of this mitigation measure is particularly critical for projects located adjacent to or in proximity to wetlands or surface waters, all construction projects will be required to comply with the Regional Water Quality Control Board's NPDES General Construction Permit, and will be required to implement appropriate BMPs.

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
sediments from leaving a project site.					
Mitigation Measure 4.E-3c: (Wetland Mitigation and Monitoring Plan) Where disturbance to jurisdictional waters cannot be avoided, compensation shall be provided at a minimum 1:1 ratio for temporary impacts and permanent loss. Actual compensatory mitigation ratios will be specified in project permits issued by the Corps, RWQCB, and BCDC. Where applicable, compensation shall be detailed on a project-specific basis and shall include development of an onsite wetland mitigation and monitoring plan, which shall be developed prior to the start of the first phase of development or in coordination with permit applications and/or conditions. Alternatively, offsite mitigation may be pursued through an approved mitigation bank, although this option may result in a higher mitigation ratio. At a minimum, such plans shall include: • Baseline information, including a summary of findings for the most recent wetland delineation applicable to the project site; • Anticipated habitat enhancements to be achieved through compensatory actions, including mitigation site location (onsite enhancement or offsite habitat creation) and hydrology; • Performance and success criteria for wetland creation or enhancement including, but not limited to, the following:[2] - At least 70 percent survival of installed plants for each of the first three years following planting. - Performance criteria for vegetation percent cover in Years 1-4 as follows: at least 10 percent cover of installed plants in Year 1; at least 20 percent cover in Year 2; at least 30 percent cover in Year 3; at least 40 percent cover in Year 4. - Performance criteria for hydrology in Years 1-5 as follows: Fourteen or more consecutive days of flooding, ponding, or a water table 12 inches or less below the soil surface during the growing season at a minimum frequency of three of the five monitoring years; OR establishment of a prevalence of wetland obligate plant species. - Invasive plant species that threaten the success of created or enhanced wetlands should not contribute relative cover greater than 35 percent in Year 1, 20 percent in Years 2 and 3, 15 percent in Year 4, and 10 percent in Year 5. - If necessary, supplemental water shall be provided by a water truck for the first two years following installation. Any supplemental water must be removed or turned off for a minimum of two consecutive years prior to the end of the monitoring period, and the wetland must meet all other criteria during this period. At the end of the five-year monitoring period, the wetland must be self-sufficient and capable of persistence without supplemental water. - At least 75 percent cover by hydrophytic vegetation at the end of the five-year monitoring period. In addition, wetland hydrology and hydric soils must be present and defined as follows: ▪ *Hydrophytic vegetation* – A plant community occurring in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present. ▪ *Wetland hydrology* – Identified by indicators such as sediment deposits, water stains on vegetation, and oxidized rhizospheres along living roots in the upper 12 inches of the soil, or satisfaction of the hydrology performance criteria listed above.	Project applicant shall develop a mitigation plan to compensate disturbance to jurisdictional waters at a minimum 1:1 ratio by either (1) developing an onsite wetland mitigation monitoring plan or (2) pursue offsite mitigation options. Ensure that mitigation plan incorporates items described in Measure 4.E-3c.	City of Alameda Community Development Department; Corps; RWQCB; BCDC	Review of construction specifications to ensure it includes wetland replaced or restored at a minimum 1:1 ratio for temporary and permanent loss. Review compensation plan to ensure incorporation of items described in Mitigation Measure 4.E-3c.	Prior to issuance of grading permit	

[2] Vegetation-related criteria listed here apply only mitigation required for impacts to vegetated wetlands and would not be required for mitigation required for impacts to unvegetated wetlands.

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
▪ *Hydric soils* – Soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions, which are often characterized by features such as redox concentrations, which form by the reduction, translocation, and/or oxidation of iron and manganese oxides. Hydric soils may lack hydric indicators for a number of reasons. In such cases, the same standard used to determine wetland hydrology when indicators are lacking can be used. - Five years after any wetland creation, a wetland delineation shall be performed to determine whether created wetlands are developing according to the success criteria outlined in the project permits. If they are not, remedial measures such as re-planting and or re-design and construction of the created wetland shall be taken to ensure that the Project's mitigation obligations are met. ▪ If permanent and temporary impacts on jurisdictional waters cannot be compensated onsite through the restoration or enhancement of wetland features incorporated within proposed open space areas, the specific project applicant shall provide additional compensatory mitigation for these habitat losses. Potential options include the creation of additional wetland acreage onsite or the purchase of offsite mitigation. Offsite compensatory mitigation would be required to fulfill the performance standards described above.					
Mitigation Measure 4.E-4a (Marine Craft Access Corridor): The City shall deploy buoys between Breakwater Island and the shoreline to create a 500-foot access corridor for all marine craft, including pleasure crafts and ferries, under non-emergency situation, in order to minimize disturbance to biological habitat on the shoreline and on the breakwater. Signs shall be posted that include a speed limit of 10 mph on the harbor side of Breakwater Island.	The City shall deploy buoys and post speed limit signs. WETA shall adhere to a 10-mph speed limit on the harbor side of the Breakwater Island in and around the Seaplane Lagoon.	City of Alameda Community Development Department	City to ensure that measure is implemented.	During or after construction of marina and ferry terminal are complete.	
Mitigation Measure 4.E-4c: (Breeding Birds) The City shall require project applicants to conduct pre-construction breeding bird surveys for projects proposed in areas containing, or likely to contain, habitat for nesting birds as a condition of approval for any development-related permit. Specific measures to avoid and minimize impacts on nesting birds include, but are not limited to, those described below. • To avoid and minimize potential impacts on nesting raptors and other birds, preconstruction surveys shall be performed not more than one week prior to initiating vegetation removal and/or construction activities during the breeding season (i.e., February 1 through August 31) • To avoid and minimize potential impacts on nesting raptors and other birds, a no-disturbance buffer zone shall be established around active nests during the breeding season until the young have fledged and are self-sufficient, when no further mitigation would be required • Typically, the size of individual buffers ranges from a minimum of 250 feet for raptors to a minimum of 50 feet for other birds but can be adjusted based on an evaluation of the site by a qualified biologist in cooperation with the USFWS and/or CDFW • Birds that establish nests after construction starts are assumed to be habituated to and tolerant of the indirect impacts resulting from construction noise and human activity. However, direct take of nests, eggs, and nestlings is still prohibited and a buffer must be established to avoid nest destruction. • If construction ceases for a period of more than two weeks, or vegetation removal is required after a period of more than two weeks has elapsed from the preconstruction surveys, then new nesting bird surveys must be conducted.	Project applicant shall conduct pre-construction breeding bird surveys. Project applicant shall implement identified avoidance and minimization measures for nesting bird impacts.	City of Alameda Community Development Department	Review construction specifications to ensure incorporation of nesting bird avoidance and minimization measures. Monitor to ensure implementation of avoidance and minimization measures during construction.	Prior to issuance of building permit(s) and during construction	Although this mitigation measure is particularly critical for projects located in the Northwest Territories and the Federal Property, it is applicable to any project on a site that has trees, shrubs, buildings, or other structures, all of which can provide nesting habitat for birds.

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
Mitigation Measure 4.E-4e (Noise Mitigation Measures for Breeding Birds): The City shall ensure that project construction activities on City property that would result in noise levels exceeding existing maximum ambient noise levels in the Northwest Territories or as measured on the Federal Property by more than 10 dBA and/or generally exceeding 60 dBA will avoid and minimize adverse effects on California least tern and other breeding bird reproductive success through one or more of the following measures: a) Demolition and construction on City owned property in the Northwest Territories directly adjacent to the Federal Property, and construction of the Bay Trail on Federal Property shall take place in September-January, outside the general bird breeding season of February through August, to the extent feasible. When such work is unavoidable, solid plywood fences shall be constructed between the project site and sensitive wildlife habitat prior to initiation of construction to serve as noise attenuation barriers. The fencing shall be a minimum of 8 feet in height. The fences shall shield the breeding birds from major noise generating phases of demolition and; b) In all other areas, major noise generating phases of demolition and construction that would exceed ambient noise levels as measured in the Federal Property by more than 10 dBA shall take place in September-January, outside the general bird breeding season of February through August; OR solid plywood fences shall be constructed as described above.	The City shall implement the two-part measure.	City of Alameda Community Development Department	City to ensure proper construction mitigation is implemented regarding sensitive wildlife and ambient noise levels prior to construction	Prior to and during construction.	
Mitigation Measure 4.E-4f: (Open Refuse Containers) The City shall prohibit open refuse containers that contain food waste throughout the project area. This prohibition shall be incorporated into the terms and conditions of all City approvals for future development at Alameda Point.	The City will prohibit placement of open refuse containers that contain food waste.	City of Alameda Community Development Department	City to ensure that measure is implemented.	After construction is complete.	
Mitigation Measure 4.E-5: The City of Alameda shall implement Mitigation Measures 4.E-1a through 4.E-1h (avoid and minimize impacts on special-status wildlife), Mitigation Measures 4.E-2a through 4.E-2c (avoid and minimize impacts to sensitive natural communities), Mitigation Measures 4.E-3a through 4.E-3c (avoid and minimize impacts to jurisdictional waters), and Mitigation Measures 4.E-4a through 4.E-4f (avoid and minimize impacts to migratory and breeding wildlife).	See Mitigation Measures 4.E-1a through 4.E-1h, 4.E-2a through 4.E-2c, 4.E-3a through 4.E-3c, and 4.E-4a through 4.E-4f.				
Mitigation Measure 4.E-6: The City of Alameda shall implement Mitigation Measures 4.E-1a through 4.E-1h (avoid and minimize impacts on special-status wildlife), Mitigation Measures 4.E-2a through 4.E-2c (avoid and minimize impacts to sensitive natural communities), Mitigation Measures 4.E-3a through 4.E-3c (avoid and minimize impacts to jurisdictional waters), and Mitigation Measures 4.E-4a through 4.E-4f (avoid and minimize impacts to migratory and breeding wildlife).	See Mitigation Measures 4.E-1a through 4.E-1h, 4.E-2a through 4.E-2c, 4.E-3a through 4.E-3c, and 4.E-4a through 4.E-4f.				
Mitigation Measure 4.E-7: The City of Alameda shall implement Mitigation Measures 4.E-1a through 4.E-1h (avoid and minimize impacts on special-status wildlife), Mitigation Measures 4.E-2a through 4.E-2c (avoid and minimize impacts to sensitive natural communities), Mitigation Measures 4.E-3a through 4.E-3c (avoid and minimize impacts to jurisdictional waters), and Mitigation Measures 4.E-4a through 4.E-4f (avoid and minimize impacts to migratory and breeding wildlife).	See Mitigation Measures 4.E-1a through 4.E-1h, 4.E-2a through 4.E-2c, 4.E-3a through 4.E-3c, and 4.E-4a through 4.E-4f.				
F. Air Quality and Greenhouse Gases					
Mitigation Measure 4.F-1a: (Fugitive Dust) The following BAAQMD Best Management Practices for fugitive dust control will be required for all construction activities within the project area. These measures will reduce fugitive dust emissions primarily during soil movement, grading and demolition activities, but also during vehicle and equipment movement on unpaved project sites: ***Basic Controls that Apply to All Construction Sites***	Project applicant shall incorporate the BAAQMD BMPs for fugitive dust control in construction specifications. Project applicant shall implement BMPs during construction.	City of Alameda Community Development Department	Review construction specifications for inclusion of BAAQMD BMPs. Monitor to ensure that BMPs are implemented during construction.	Prior to issuance of building permit(s) and on-going during construction.	

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. 2. All haul trucks transporting soil, sand, or other loose material off site shall be covered.					
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. 4. All vehicle speeds on unpaved roads shall be limited to 15 mph. 5. All streets, 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. 6. 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 CCR). Clear signage shall be provided for construction workers at all access points. 7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. 8. A publicly visible sign shall 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. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.					
Mitigation Measure 4.F-1.b: (**Construction Exhaust)** The following control measures for construction emissions will be required for all construction activities within the project area: • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to two minutes. Clear signage shall be provided for construction workers at all access points. • The Project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NO_x reduction and 45 percent PM reduction compared to the most recent CARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available. (The Level 3 Verified Diesel Emissions Control (VDEC) required under Mitigation Measure 4.F-1d would also comply with this measure) • Require that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NO_x and PM. • Require all contractors to use equipment that meets CARB's most recent certification standard for off-road heavy duty diesel engines	Project applicant shall incorporate control measures for construction emissions in construction specifications. Project applicant shall implement control measures during construction.	City of Alameda Community Development Department	Review construction specifications to ensure incorporation of control measures for construction emissions. Monitor to ensure that construction exhaust measures are implemented during construction.	Prior to issuance of building permit(s) and during construction.	
Mitigation Measure 4.F-1c: (Demolition Controls) Demolition and disposal of any asbestos containing building material shall be conducted in accordance with the procedures specified by Regulation 11, Rule 2 (Asbestos Demolition, Renovation and Manufacturing) of BAAQMD's regulations.	Project applicant shall incorporate BAAQMD's Regulation 11, Rule 2 procedures in construction specifications.	City of Alameda Community Development Department	Review construction specifications to ensure incorporation of BAAQMD's measures for the demolition	Prior to and during construction.	

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
	Project applicant shall implement measures as outlined in Regulation 11, Rule 2 of BAAQMD's regulations.		and disposal of asbestos. Ensure Project applicant complies with Regulation 11, Rule 2 procedures of BAAQMD's regulations.		
Mitigation Measure 4.F-1d: (Toxic Air Contaminants and $PM_{2.5}$) The project sponsors shall ensure that construction contract specifications include a requirement that all off-road construction equipment used for project improvements be equipped with a Level 3 Verified Diesel Emissions Control (VDEC), which would reduce diesel particulate emissions by at least 85 percent.	Project applicant shall incorporate toxic air contaminants and PM2.5 measure in construction contract specifications. Project applicant will use off-road construction equipment with a Level 3 Verified Diesel Emissions Control.	City of Alameda Community Development Department	Review construction specifications to ensure that toxic air contaminants and PM2.5 measure is incorporated. Ensure that Project applicant uses off-road construction equipment with a Level 3 Verified Diesel Emissions Control.	Prior to and during construction.	
Mitigation Measure 4.F-2: (Greenhouse Gas Reduction Measures) The following measures shall be incorporated into the project design for properties within the project area: • Implement a Transportation Demand Management (TDM) program, as described in detail in Mitigation Measure 4.C.1a in Section 4.C, Transportation. • Require only natural gas hearths in residential units as a condition of final building permit; • Require smart meters and programmable thermostats; • Meet Green Building Code standards in all new construction; • Install solar water heaters for all uses as feasible; • Use recycled water when available; • Install low-flow fixtures (faucets, toilets, showers); • Use water efficient irrigation systems; and • Institute recycling and composting services.	Project applicant shall incorporate measures into project design documents.	City of Alameda Community Development Department	Ensure that project design documents incorporate measures identified in Mitigation Measure 4.F-2.	During design phase.	
Mitigation Measure 4.F-4: Implement Mitigation Measures 4.F-1a, 4.F-1b, and 4.F-1e.	See Mitigation Measures 4.F-1a, 4.F-1b, and 4.F-1e.				
Mitigation Measure 4.F-7a: Implement Mitigation Measure 4.F-2.	See Mitigation Measure 4.F-2.				
Mitigation Measure 4.F-7b: (Fuel-Efficient Vehicles) The City shall promote use of clean fuel-efficient vehicles through preferential parking, installation of charging stations, and low emission electric vehicle carsharing programs to reduce the need to have a car or second car vehicles in the TDM Program.	City shall require implementation of measures identified in Measure 4.F-7b.	City of Alameda Community Development Department			
Mitigation Measure 4.F-8: Implement Mitigation Measures 4.F-2 and 4.F-7b.	See Mitigation Measures 4.F-2 and 4.F-7b.				
G. Noise					
Mitigation Measure 4.G-1a: (Construction Hours) The City will require construction contractors to limit standard construction activities hours to be in compliance with the Noise Ordinance. Pile driving activities greater than 90 dBA limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday. No pile driving shall be allowed on weekends and National holidays.	Project applicant and its contractor(s) to include noise limitations in construction specifications. Project applicant and its contractor(s) to comply with the Noise Ordinance and ensure that pile driving activities greater than 90 dBA are limited between 8:00 a.m. and 4:00 p.m. Monday	City of Alameda Community Development Department	Review construction specifications to ensure measure is incorporated; inspection to ensure conformance.	Prior to issuance of grading or building permit(s); inspection during construction	

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
	through Friday.				
Mitigation Measure 4.G-1b: (Construction Noise Measures) To reduce daytime noise impacts due to construction, the City will require construction contractors to implement the following measures: • Equipment and trucks used for project construction will utilize the best available noise control techniques, such as improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible. • Impact tools (i.e., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust will be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves will be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures will be used, such as drills rather than impact equipment, whenever feasible. • Stationary noise sources will be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures to the extent feasible. • Haul routes that affect the fewest number of people will be selected.	Project applicant and its contractor(s) shall use best available noise-control techniques described and locate stationary noise sources as far from adjacent receptors as possible.	City of Alameda Community Development Department	Require use of noise-control techniques in building permit; inspect construction site to confirm adherence to those requirements.	Prior to issuance of grading building permit(s); inspect during construction	
Mitigation Measure 4.G-1c: (Pile Driving Noise Attenuation Measures) Pile driving activities within 300 feet of sensitive receptors will require additional noise attenuation measures. Prior to commencing construction, a plan for such measures will be submitted for review and approval by the City to ensure that maximum feasible noise attenuation will be achieved. These attenuation measures will include as many of the following control strategies as feasible: • Erect temporary plywood noise barriers if they would block the line of sight between sensitive receptors and construction activities, particularly for existing residences in the northern area of the project site and for residences across Main Street; • Implement "quiet" pile driving technology (such as pre-drilling of piles or use of sonic pile drivers), where feasible, in consideration of geotechnical and structural requirements and conditions; and • Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site.	Project applicant and its contractor(s) shall prepare plan and submit to City; implement during construction.	City of Alameda Community Development Department	Review noise-attenuation plan and incorporate plan into building permit; inspect site during construction to confirm adherence to plan.	Prior to issuance of grading or building permit(s); inspect site during construction	
Mitigation Measure 4.G-1d: (Complaint Tracking) Prior to the issuance of each building permit, along with the submission of construction documents, the project applicant will submit to the City a list of measures to respond to and track complaints pertaining to construction noise. These measures will include: • Signs will be posted at the construction site that include permitted construction days and hours, a day and evening contact number for the job site, and a contact number with the City of Alameda in the event of noise complaints. The project applicant will designate an onsite complaint and enforcement manager to track and respond to noise complaints; and • Notification of neighbors within 300 feet of the project construction area at least 30 days in advance of pile-driving activities about the estimated duration of the activity.	Project applicant and its contractor(s) shall post construction information and track complaints pertaining to construction noise	City of Alameda Community Development Department	Review construction specifications to ensure conformance; inspection to ensure conformance	Prior to issuance of building permit(s)	
Mitigation Measure 4.G-2: Implement Mitigation Measures 4.G-1a through 4.G-1d.	See Mitigation Measures 4.G-1a through 4.G-1d.				
Mitigation Measure 4.G-4: (Noise Ordinance) During individual project phase	Project applicant and its	City of Alameda	City shall ensure that	During design phase and	

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
design preparation, the City will require a project applicant to comply with the Noise Ordinance and General Plan standards. These measures implement noise control measures to ensure that all non-transportation source operations comply with City standards and will include, but not be limited to, the following: • The proposed land uses will be designed so that onsite mechanical equipment (e.g., HVAC units, compressors, generators) and area-source operations (e.g., loading docks, parking lots, and recreational-use areas) are located as far as possible and/or shielded from nearby noise sensitive land uses to meet City noise standards. • Onsite landscape maintenance equipment will be equipped with properly operating exhaust mufflers and engine shrouds, in accordance with manufacturers' specifications. • The following activities will be limited to the hours of 7:00 a.m. to 10:00 p.m. unless site-specific analysis confirms that noise impacts to sensitive receptors would be less-than-significant: - Truck deliveries; - Operations of motor powered landscape maintenance equipment; and - Outdoor use of amplified sound systems.	contractor(s) shall incorporate operational noise control measures in project design phase documents.	Community Development Department	design phase documents of individual projects incorporate operational noise control measures.	prior to issuance of building permit(s)	
H. Geology, Soils, and Seismicity					
Mitigation Measure 4.H-1: (Geotechnical Investigation) Prior to approval of a building permit, a site specific, design-level geotechnical investigation shall be prepared for all proposed development on the project site. The investigation shall include detailed characterization of the distribution and compositions of subsurface materials and an assessment of their potential behavior during violent seismic ground-shaking. The analysis shall recommend site preparation and design parameters that would be necessary to avoid or substantially reduce structural damage under anticipated peak ground accelerations in accordance with seismic design requirements within the most current version of the California Building Code and Alameda Municipal Code. The investigation and recommendations shall be in conformance with all applicable city ordinances and policies and consistent with the design requirements of the calculated Seismic Design Category for each site in accordance with the California Building Code. The geotechnical report shall be prepared by a California-registered geotechnical engineer and approved by the City, and all recommendations contained in the report shall be included in the final design of the project. Mitigation Measure 4.H-1 would ensure that the proposed project would be designed to withstand strong seismic ground-shaking, and that the occupants of the proposed development are informed of safety procedures to follow in the event of an earthquake.	Project applicant shall obtain a California-registered geotechnical engineer to conduct design-level geotechnical investigation. Geotechnical engineer shall conduct geotechnical investigation, prepare a report and develop recommendations in accordance to Measure 4.H-1. Engineer shall ensure that recommendations conform to city ordinances and policies.	Project applicant and City of Alameda Community Development Department	City shall review and approve geotechnical report.	Prior to approval of building permit(s)	
Mitigation Measure 4.H-2: (Geotechnical Mitigation) Prior to issuance of a building permit, earthwork, foundation and structural design for proposed development under the project shall be conducted in accordance with all recommendations contained in the required geotechnical investigation (Mitigation Measure 4.H-1a). The investigation must include an assessment of all potentially foreseeable seismically-induced ground failures, including liquefaction, sand boils, lateral spreading and rapid settlement. Mitigation strategies must be designed for the site-specific conditions of the project and must be reviewed for compliance with the guidelines of CGS Special Publication 117A prior to incorporation into the project. Examples of possible strategies include edge containment structures (berms, diked sea walls, retaining structures, compacted soil zones), removal or treatment of liquefiable soils, soil modification, modification of site geometry, lowering the groundwater table, in-	Project applicant shall ensure that geotechnical investigation includes assessment of all potentially foreseeable seismically-induced ground failures, including liquefaction, sand boils, lateral spreading and rapid settlement. Project applicant shall ensure that mitigation strategies are developed consistent with the guidelines of CGS Special Publication 117A.	Project applicant and City of Alameda Community Development Department	Ensure that geotechnical report addresses seismically-induced ground failures listed in the measure. Review and ensure that mitigation strategies are developed consistent with the guidelines of CGS Special Publication 117A.	Review mitigation strategies prior to incorporation into the project. Prior to issuance of building permit(s).	

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
situ ground densification, deep foundations, reinforced shallow foundations, and structural design that can accommodate predicted displacements.					
Mitigation Measure 4.H-4: (Settlement Mitigation) The required geotechnical report for each development project (Mitigation Measure 4.H-1a) shall determine the susceptibility of the project site to settlement and prescribe appropriate engineering techniques for reducing its effects. Where settlement and/or differential settlement is predicted, mitigation measures—such as lightweight fill, geofoam, surcharging, wick drains, deep foundations, structural slabs, hinged slabs, flexible utility connections, and utility hangers—shall be used. These measures shall be evaluated and the most effective, feasible, and economical measures shall be recommended. Engineering recommendations shall be included in the project engineering and design plans, and be reviewed and approved by a registered geotechnical engineer. All construction activities and design criteria shall comply with applicable codes and requirements of the most recent California Building Code, and applicable City construction and grading ordinances.	Project applicant shall ensure that geotechnical investigation assesses the susceptibility of the site to settlement, prescribes engineering techniques for reducing its effects, and includes recommended mitigation measures. Project applicant will include recommendations in project engineering and design plans. Applicant will comply with all applicable codes and requirements during construction.	City of Alameda Community Development Department and registered geotechnical engineer.	Ensure that geotechnical report evaluates susceptibility of the site to settlement and that recommendations and mitigation measures are included. Registered geotechnical engineer will review and approve engineering recommendations. City will ensure that construction activities and design criteria comply with applicable codes and requirements.	During the design and construction phases.	
Mitigation Measure 4.H-5: (Expansive Soils Assessment) Prior to issuance of a building permit, subsurface earthwork (e.g., placement of engineered fill), shall be conducted in accordance with all recommendations contained in the required geotechnical investigation (Mitigation Measure 4.H-1). The geotechnical report must include an assessment of all potentially expansive soils that could adversely affect proposed improvements. Geotechnical strategies must be designed for the site-specific conditions of the project and must be reviewed for compliance with the requirements of the most recent California Building Code as well as any additional City of Alameda requirements.	Project applicant will ensure that geotechnical report includes assessment of expansive soils and strategies consistent with most recent California Building Code as well as any additional City of Alameda requirements.	City of Alameda Community Development Department	City will review and approve strategies/recommendations outlined in geotechnical report.	Prior to issuance of building permit(s)	
I. Hydrology and Water Quality					
Mitigation Measure 4.I-1: (Water Quality Measures) The City shall ensure that project applicants for projects at Alameda Point implement the following measures as part associated with the extracted water during project construction: • The RWQCB could require compliance with certain provisions in the permit such as treatment of the flows prior to discharge. The project applicant shall discharge the extracted water to the sanitary sewer or storm drain system with authorization of and required permits from the applicable regulatory agencies, in this case the City of Alameda. • The project applicant shall comply with applicable permit conditions associated with the treatment of groundwater prior to discharge. • If necessary a dewatering collection and disposal method shall be prepared and implemented for the project.	Project applicant will incorporate water quality measures in the construction specifications. Project applicant will obtain and comply with necessary permits from RWQCB and City of Alameda for any activities requiring discharge of extracted water to the sanitary sewer or storm drain system.	City of Alameda Community Development Department, RWQCB	RWQCB and City will review permit application for activities involving discharge or extracted water necessary during construction activities. Upon approval, City will monitor to ensure compliance with permit conditions.	Prior to construction	
Mitigation Measure 4.I-2: (Integrated Pest Management) The City shall ensure that future project applicants implement Integrated Pest Management measures to reduce fertilizer and pesticide contamination of receiving waters, as follows: • Prepare and Implement an Integrated Pest Management Plan (IPM) for all common landscaped areas. The IPM shall be prepared by a qualified professional and shall recommend methods of pest prevention and turf grass management that use pesticides as a last resort in pest control. Types and rates of fertilizer and pesticide application shall be specified. • The IPM shall specify methods of avoiding runoff of pesticides and nitrates into receiving storm drains and surface waters or leaching into the shallow groundwater table. Pesticides shall be used only in response to a persistent pest	The Project applicant will incorporate Integrated Pest Management measures into construction specifications. The Project applicant will implement Integrated Pest Management measures including an integrated pest management plan.	City of Alameda Community Development Department	City will ensure that the Integrated Pest Management measures are included in the construction specifications. City will monitor and ensure that Project applicant implements pest management measures.	Prior to construction and after construction.	

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
problem that cannot be resolved by non-pesticide measures. Preventative chemical use shall not be employed. • The IPM shall fully integrate considerations for cultural and biological resources into the IPM with an emphasis toward reducing pesticide application.					
Mitigation Measure 4.I-8: (Sea-Level Protection) The City shall implement the following steps prior to project implementation: • Apply for membership in the National Flood Insurance Program (NFIP) Community Rating System (CRS), and as appropriate through revisions to the City Code, obtain reductions in flood insurance rates offered by the NFIP to community residents. • Cooperate with FEMA in its efforts to comply with recent congressional mandates to incorporate predictions of sea level rise into its Flood Insurance Studies and FIRM. • Implement climate adaptation strategies such as avoidance/planned retreat, enhance levees, setback levees to accommodate habitat transition zones, buffer zones and beaches, expanded tidal prisms for enhanced natural scouring of channel sediments, raising and flood-proofing structures, or provisions for additional floodwater pumping stations, and inland detention basins to reduce peak discharges.	City will incorporate measures into construction plans and specifications. City will implement measures as stated in Measure 4.I-8.	City of Alameda Community Development Department	City shall ensure that structural design and adaptive measures are incorporated in construction plans and specifications. City will monitor to ensure implementation of measures.	Prior to construction.	*Although implementation of this mitigation measure is the responsibility of the City of Alameda, it should be implemented prior to construction of the first new development project at Alameda Point.
J. Hazards and Hazardous Materials					
Mitigation Measure 4.J-1a: (Hazardous Building Material Assessment) Prior to issuance of any demolition permit, the project applicant shall submit to the City a hazardous building material assessment prepared by qualified licensed contractors for each structure intended for demolition indicating whether LBP or lead-based coatings, ACMs, and/or PCB-containing equipment are present.	Project applicant will obtain a qualified licensed contractor to prepare and submit a hazardous building material assessment. Qualified contractor will prepare and submit hazardous building material assessment for the Project applicant and City's review.	City of Alameda Community Development Department	City will review the hazardous building material assessment.	Prior to issuance of demolition permit(s).	*This mitigation measure applies only to projects entailing demolition of existing buildings or other structures.
Mitigation Measure 4.J-1b: (Health and Safety Plan) If the assessment required by Mitigation Measure 4.J-1a indicates the presence of LBP, ACMs, and/or PCBs, the project applicant shall create and implement a health and safety plan to protect demolition and construction workers and the public from risks associated with such hazardous materials during demolition or renovation of affected structures.	Project applicant will prepare and implement a health and safety plan if Measure 4.J-1 indicates the presence of LBP, ACMs, and/or PCBs.	City of Alameda Community Development Department	City will review health and safety plan. City will monitor to ensure that the health and safety plan is implemented.	Prior to and during construction.	*This mitigation measure applies only to projects entailing demolition of existing buildings or other structures.
Mitigation Measure 4.J-1c: (LBP Removal Plan) If the assessment required by Mitigation Measure 4.J-1a finds presence of LBP, the project applicant shall develop and implement a LBP removal plan. The plan shall specify, but not be limited to, the following elements for implementation: • Develop a removal specification approved by a Certified Lead Project Designer. • Ensure that all removal workers are properly trained. • Contain all work areas to prohibit offsite migration of paint chip debris. • Remove all peeling and stratified LBP on building and non-building surfaces to the degree necessary to safely and properly complete demolition activities according to recommendations of the survey. The demolition contractor shall be responsible for the proper containment and disposal of intact LBP on all equipment to be cut and/or removed during the demolition. • Provide onsite personnel and area air monitoring during all removal activities to ensure that workers and the environment are adequately protected by the control measures used.	Project applicant will prepare and implement a LBP removal plan if LBP is found present.	City of Alameda Community Development Department	City will review LBP removal plan. City will monitor to ensure that LBP removal plan is implemented.	Prior to construction and during construction.	*This mitigation measure applies only to projects entailing demolition of existing buildings or other structures.

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
• Clean up and/or vacuum paint chips with a high efficiency particulate air (HEPA) filter. • Collect, segregate, and profile waste for disposal determination. Properly dispose of all waste.					
Mitigation Measure 4.J-1d: (Asbestos Abatement Plan) If the assessment required by Mitigation Measure 4.J-1a finds asbestos, the project applicant shall prepare an asbestos abatement plan and shall ensure that asbestos abatement is conducted by a licensed contractor prior to building demolition. Abatement of known or suspected ACMs shall occur prior to demolition or construction activities that would disturb those materials. Pursuant to an asbestos abatement plan developed by a state-certified asbestos consultant and approved by the City, all ACMs shall be removed and appropriately disposed of by a state certified asbestos contractor.	If asbestos is found upon implementation of Mitigation Measure 4.J-1a, Project applicant will prepare an asbestos abatement plan. Project applicant will obtain a state-certified asbestos consultant to prepare the asbestos plan. State-certified asbestos consultant will ensure that all ACMs are removed and appropriately disposed of.	City of Alameda Community Development Department	City will review and shall approve the asbestos abatement plan. Ensure that abatement of known or suspected ACMs are removed by a state certified asbestos contractor.	Prior to building demolition activities, and during demolition work.	*This mitigation measure applies only to projects entailing demolition of existing buildings or other structures.
Mitigation Measure 4.J-1e: (PCB Abatement) If the assessment required by Mitigation Measure 4.J-1a finds PCBs, the project applicant shall ensure that PCB abatement is conducted prior to building demolition or renovation. PCBs shall be removed by a qualified contractor and transported in accordance with Caltrans requirements.	If PCBs are found upon implementation of Mitigation Measure 4.J-1a, Project applicant will obtain a qualified contractor to implement PCB abatement. Qualified contractor will remove PCBs and will transport in accordance with Caltrans requirements.	City of Alameda Community Development Department	City will ensure that PCB abatement measure is incorporated in construction plans and specifications. City will monitor and ensure that PCB abatement measures are implemented.	Prior to and during building demolition or renovation work.	*This mitigation measure applies only to projects entailing demolition of existing buildings or other structures.
Mitigation Measure 4.J-2: (Site Management Plan) Prior to issuance of a building or grading permit for any ground breaking activities within the project site, the City shall prepare a Site Management Plan (SMP) that is approved by US EPA, DTSC, and the Water Board for incorporation into construction specifications. Any additional or remaining remediation on identified parcels from the City's tracking system shall be completed as directed by the responsible agency, U.S. EPA, DTSC, or Water Board, in accordance with the deed restrictions and requirements as well as any Covenants(s) to Restrict Use of Property (CRUP), prior to commencement of construction activities. Where necessary, additional remediation shall be accomplished by the project applicant prior to issuance of any building or grading permits in accordance with all requirements set by the overseeing agency (i.e., U.S. EPA, DTSC, or Water Board). The SMP shall be present on site at all times and readily available to site workers. The SMP shall specify protocols and requirements for excavation, stockpiling, and transport of soil and for disturbance of groundwater as well as a contingency plan to respond to the discovery of previously unknown areas of contamination (e.g., discolored soils, strong petroleum odors, an underground storage tank unearthed during normal construction activities, etc.). At a minimum the SMP shall include the following components:	City and Project applicant shall prepare a Site Management Plan (SMP) for U.S. EPA, DTSC, or State Water Resources Control Board's (Water Board) approval. City and Project applicant shall implement additional or remaining remediation efforts from the City's tracking system and as directed by the U.S. EPA, DTSC, or Water Board. City will implement measures contained in the approved SMP.	City of Alameda Community Development Department and U.S. EPA, DTSC, or Water Board.	The City, U.S. EPA, DTSC, or Water Board will review SMP and ensure SMP is incorporated into construction specifications. City and the overseeing agency will ensure that Project applicant implements additional remediation requirements based on those established by overseeing agency as well as any Covenants to Restrict Use of Property (CRUP). The City and the overseeing agency will ensure that the SMP is present on site at all	Prior to issuance of a building or grading permit	
1. *Soil management requirements*. Protocols for stockpiling, sampling, and transporting soil generated from onsite activities. The soil management requirements must include: • Soil stockpiling requirements such as placement of cover, application of moisture, erection of containment structures, and implementation of security measures. Additional measures related to BAAQMD dust control requirements					

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
as they apply to contamination shall also be included, as needed (see also Air Quality section). • Protocols for assessing suitability of soil for onsite reuse through representative laboratory analysis of soils as approved by U.S. EPA, DTSC, or Water Board, taking into account the site-specific health-based remediation goals, other applicable health-based standards, and the proposed location, circumstances, and conditions for the intended soil reuse. • Requirements for offsite transportation and disposal of soil not determined to be suitable for onsite reuse. Any soil identified for offsite disposal must be packaged, handled, and transported in compliance with all applicable state, federal, and the disposal facility's requirements for waste handling, transportation and disposal. • Protocols for adherence to the City of Alameda's Marsh Crust Ordinance. • Measures to be taken for areas of IR Site 13 where refinery wastes and asphaltic residues known as tarry refinery waste might be encountered. Measures shall include requirements for the storage, handling and disposal/recycling of any suspected tarry refinery waste that may be encountered. • Radiological screening protocols for the radiological sites identified by the Navy as approved by the U.S. EPA, where necessary.					
2. *Groundwater management requirements*. Protocols for conducting dewatering activities and sampling and analysis requirements for groundwater extracted during dewatering activities. The sampling and analysis requirements shall specify which groundwater contaminants must be analyzed or how they will be determined. The results of the groundwater sampling and analysis shall be used to determine which of the following reuse or disposal options is appropriate for such groundwater: • Onsite reuse (e.g., as dust control); • Discharge under the general permit for stormwater discharge for construction sites; • Treatment (as necessary) before discharge to the sanitary sewer system under applicable East Bay MUD waste discharge criteria; • Treatment (as necessary) before discharge under a site-specific NPDES permit; • Offsite transport to an approved offsite facility. For each of the options listed, the SMP shall specify the particular criteria or protocol that would be considered appropriate for reuse or disposal options. The thresholds used must, at a minimum, be consistent with the applicable requirements of the Water Board and East Bay MUD. 3. *Unknown contaminant/hazard contingency plan*. Procedures for implementing a contingency plan, including appropriate notification, site worker protections, and site control procedures, in the event unanticipated potential subsurface hazards or hazardous material releases are discovered during construction. Control procedures shall include: • Protocols for identifying potential contamination though visual or olfactory observation; • Protocols on what to do in the event an underground storage tank is encountered; • Emergency contact procedures; • Procedures for notifying regulatory agencies and other appropriate parties; • Site control and security procedures; • Sampling and analysis protocols; and					

Mitigation Measures	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Mitigation Schedule	Notes
4. Interim removal work plan preparation and implementation procedures.					
Mitigation Measure 4.J-7: (Land Use Restriction Tracking Program) The City shall include closed and open IR CERCLA sites that have land-use controls within its Land-use Restriction Tracking Program for identification and disclosure of any past cleanup efforts and current status of any remaining contamination, if any. Additional control measures such as vapor barriers and venting may be required as a condition of approval in areas where soil gas emissions have been identified. Prior to transfer of title for any parcel, the City shall require that the SMP as approved by US EPA, DTSC, and the Water Board be incorporated into intrusive site operations as required through deed restriction, enforceable Land Use Covenant, or any other applicable legal requirement.	City will include closed and open Installed Restoration (IR) CERCLA sites that have land-use controls within its Land-use Restrictions Tracking Program. City will ensure that the SMP (as approved by U.S. EPA, DTSC, and Water Board) be incorporated into intrusive site operations as required through deed restriction, enforceable Land Use Covenant, or any other applicable legal requirement.	City of Alameda Community Development Department	City shall ensure that its Land-use Restrictions Tracking Program includes open and closed IR CERCLA sites.	Prior to transfer of title for any parcel.	*This mitigation measure will only apply to sites that have land use controls due to existing or past site contamination. The City will identify restricted sites to project applicants.
K. Aesthetics					
Mitigation Measure 4.K-4: (Lighting Mitigation) All lighting installations shall be designed and installed to be fully shielded (full cutoff) and to minimize glare and obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary, unless expressly exempted below. The location and design of all exterior lighting shall be shown on any site plan submitted to the City of Alameda for approval. The following lighting is exempt from these requirements: 1. Lighting in swimming pools and other water features. 2. Exit signs and other illumination required by building codes. 3. Lighting for stairs and ramps, as required by the building code. 4. Signs that are regulated by the City sign code. 5. Holiday and temporary lighting (less than thirty days use in any one year). Low-voltage landscape lighting, but such lighting should be shielded in such a way as to eliminate glare and light trespass.	Project applicant and its contractor(s) shall prepare landscape plans that adhere to all specifications in Mitigation Measure 4.K-4.	City of Alameda Community Development Department	Verify that the design features and recommendations listed in the mitigation measure are incorporated into the design review application for the project.	Prior to approval of building permit(s)	
M. Utilities and Services Systems					
Mitigation Measure 4.M-5: (Solid Waste Management Plan) The City shall develop a solid waste management plan for the Alameda Point project consistent with Alameda's demolition and debris ordinance. Plans for managing construction debris from specific reuse and development projects that require separation of waste types and recycling, and provide for reuse of materials onsite for the reuse and development areas, shall be developed by the project sponsor. The solid waste management plan shall be prepared in coordination with City staff, the project sponsor(s), and demolition subcontractors, and shall be approved by City staff prior to issuance of a demolition permit. The City and sponsors of projects shall work with organizations able to provide funding and technical assistance for managing and financing deconstruction, demolition, and recycling and reuse programs, should those programs exist at the time of site clearance.	Project applicant(s) shall develop a solid waste management plan through coordination with City staff and demolition subcontractors. City and Project applicant(s) shall work with organizations that would provide funding and technical assistance for managing and financing deconstruction, demolition and recycling and reuse programs.	City of Alameda Community Development Department	City of Alameda Community Development Department shall review plan.	Plan shall be developed prior to issuance of demolition permit.	* Although implementation of this mitigation measure is the responsibility of the City of Alameda, it should be implemented prior to issuance of a demolition permit to the first new development project at Alameda Point that requires demolition of existing buildings or other structures, including pavements. All projects will be required to comply with the solid waste management plan prepared by the City.

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Attachment B

Seaplane Lagoon Ferry Terminal Ridership Memorandum

Kittelson & Associates, Inc.

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TECHNICAL MEMORANDUM

Alameda Point Seaplane Lagoon Ferry Terminal

Alameda Point Ferry Ridership Assumptions

Date: March 17, 2016 Project #: 19869

To: Hannah Young, Urban Planning Partners
Alexandra Daum, Thompson Dorfman

From: Alice Chen

cc: Jennifer Ott, City of Alameda

This memo presents the ridership estimates and associated reduction in VMT for the proposed ferry service to Alameda Point Seaplane Lagoon. The assumptions and methodology used to estimate ferry ridership are documented using the available data and information from the WETA 2015-2025 Ridership Estimates, provided in February 2016. These assumptions and subsequent discussions with WETA staff were used to develop an approach to estimating ferry ridership for the proposed Seaplane Lagoon ferry service. The ferry ridership for the Seaplane Lagoon ferry terminal was then used to estimate the associated potential change in vehicle- miles travelled (VMT).

Proposed Ferry Service from Seaplane Lagoon at Alameda Point

The City of Alameda proposes to construct a new ferry terminal in the Seaplane Lagoon (SPL) at Alameda Point to expand ferry service from the west end of Alameda to San Francisco.[1] The current ferry service operates from Alameda Main Street Terminal and is a combined service from the Oakland Terminal across the estuary to San Francisco.[2] This second terminal at SPL would provide direct service to San Francisco and would serve both the increased demand from the planned development under the Alameda Point Project as well as provide additional capacity for passengers currently using the Main Street Terminal, which is operating at near capacity.

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[1] The City is currently served by ferry routes operated by WETA from the Main Street Terminal on Alameda Point and from the Harbor Bay Terminal on Bay Farm Island.

[2] The ferry service to western Alameda would be expanded to Seaplane Lagoon, while maintaining the Main Street service and current amenities, including the on-street and off-street parking facilities, at the Main Street Terminal.

WETA and the City intend to establish a commute-oriented ferry service between Seaplane Lagoon and San Francisco. The proposed ferry service assumes one ferry boat[3] to serve the Seaplane Lagoon Terminal with the following service frequencies:

- AM Peak (between 6:00 AM and 9:00 AM)
    - 3 trips minimum from Alameda SPL to SF
    - 2 reverse trips from SF to Alameda SPL
- PM Peak (between 4:00 PM and 8:00 PM
    - 3 trips minimum from Alameda SPL to SF
    - 2 reverse trips from SF to Alameda SPL

For the purpose of these ridership forecasts, a ferry boat capacity of 400 passengers is assumed.

Access and parking improvements at Seaplane Lagoon include new paving for bicycle, pedestrian, transit, and vehicular circulation and the installation of temporary parking facilities providing approximately 400 parking spaces.[4]

Approach to Estimating Ridership and VMT

Using the available information and assumptions, the following approach was developed to estimate the ridership and VMT reduction associated with the proposed ferry service at Seaplane Lagoon:

1. Determine which of the ridership estimates is most applicable to the current proposed Seaplane Lagoon service and estimate weekday peak period ferry ridership.

2. For reverse trips, compare the ratio from the WETA ridership report, and historical data on reverse-commute at Alameda, Oakland, and Harbor Bay terminals, then estimate the reverse-commute to reflect the approximately 9,000 employees at AP.

3. For mode of access, use information from the WETA ridership report as a start to estimate vehicle trips, considering mode of access at the western Alameda terminal as well as Harbor Bay terminal, which has more residential and employment in close proximity to the terminal (similar to that proposed at AP) to estimate mode share percentages for Seaplane Lagoon terminal. Apply the mode of access to determine the number of vehicle trips.

4. Differentiate between the vehicle trips that would shift from Main Street terminal and those from AP or rest of Alameda to estimate the reduction in VMT due to the Seaplane Lagoon ferry service.

[3] As noted in the project description, off-peak, emergency, and weekend service is not anticipated, but may be provided as demand increases. This ridership analysis assumes only one vessel would serve the Seaplane Lagoon Terminal.

[4] See Ferry Project Description for more details on the temporary nature of these improvements.

Seaplane Lagoon Ridership

Based on the data from WETA (2015-2025 ridership estimate), the future weekday ridership for the proposed ferry service at Seaplane Lagoon terminal is projected to be 319 for 2020 peak period ridership in the opening year.[5] By 2025, the estimate shows 897 peak period ridership, which represents maximum ridership due to the vessel capacity during the peak hour.

Reverse Commute

With about 9,000 employees at Alameda Point within close proximity of the Seaplane Lagoon terminal, the new ferry service provides an option for both residents traveling to jobs in San Francisco as well as employees traveling to jobs at Alameda Point. Since the WETA ridership estimate does not account for the proposed employment growth at Alameda Point, the estimated weekday peak period ridership understates the potential for reverse-commute ferry riders.

The reverse-commute weekday peak ridership was estimated as follows:

- For reverse trips, the WETA ridership report projected 4% of Weekday AM Peak ridership to be from SF to Alameda.[6] Since the 2012 ridership model did not reflect the level of employment at Alameda Point in proximity to the Main Street Terminal and the service operations for the reverse-commute assumed a longer travel time in the reverse-commute direction due to the stop in Oakland, this percentage was assumed to be too low.
- While the WETA service during the peak commute period primarily serves the commute to jobs in San Francisco, the Harbor Bay terminal also serves the reverse-commute due to the employment in proximity of the terminal. The historical ridership data at Harbor Bay terminal was reviewed to determine the percentage of peak period ridership in the reverse-commute direction. The data from FY14/15 show that the reverse-commute represented 9% in the AM and 10% in the PM. Absent other data on reverse-commute, a 10% reverse-commute percentage was applied to estimate potential riders for the projected 9,000 employees at Alameda Point.

As shown in Table 1, the estimated weekday peak period ridership with the reverse-commute for Seaplane Lagoon is estimated at **351 daily passenger trips in 2020 and 987 daily passenger trips by 2025**.

[5] Opening year is assumed to be WETA's 2020/2021 fiscal year commencing in 2020 and is shown in their ridership forecast as year 2021.

[6] See WETA Ridership Forecast Report, Appendix, Table C.5 Weekday AM Peak Ridership by Direction for Alameda – SF Ferry Route.

Table 1. Seaplane Lagoon Weekday Peak Period Ridership

	Commute from Alameda to San Francisco[1]	Reverse Commute (San Francisco to Alameda)[2]	Total Ridership (Both Commute Directions)
2020	319	32	351
2025	897	90	987

Sources:

[1] WETA 2015-2025 ridership forecasts for Seaplane Lagoon

[2] Assumes 10 percent reverse commute based on WETA, FY 14/15 ridership data for Harbor Bay Terminal

Mode of Access

The mode of access for the Seaplane Lagoon was estimated based on the terminal level forecasts in the WETA ridership report. The mode assumptions shown in Table 2 include both the Alameda and Harbor Bay terminals for comparison, since the mixed residential and commercial development pattern around the Harbor Bay terminal is similar to that proposed at Alameda Point. Given the proposed access improvements to the proposed Seaplane Lagoon terminal and the number of residential units within walking distance, the 40% walk access for the Alameda (Main Street) terminal was consider to be more likely for Seaplane Lagoon than the 10% walk access at Harbor Bay.

Table 2. Weekday Ridership by Mode of Access at Seaplane Lagoon

	Access to SPL				Egress from SPL		
	Walk Access	Drive Access	Transit Access	Total Ridership (Commute Direction to SF)2	Walk Egress	Transit Egress	Total Ridership (Reverse Commute)2
Alameda Main Street Terminal[1]	40%	55%	5%	100%	46%	54%	100%
Harbor Bay[1]	10%	84%	6%	100%	63%	37%	100%
Seaplane Lagoon[3]							
2020	128	175	16	319	15	17	32
2025	359	493	45	897	41	49	90

Source:

[1] WETA, Ridership Forecast Report, Table D.5 Year 2035 Alt 5 - Expanded Service Scenario Terminal-Level Forecasts

[2] WETA 2015-2025 ridership forecasts for Seaplane Lagoon

[3] Mode access/egress is assumed to be similar to that projected for Main Street Ferry Terminal.

Assuming that 55% of the weekday ferry ridership would drive to Seaplane Lagoon results in an estimated **175 weekday vehicle trips in 2020 and 493 weekday vehicle trips in 2025**.

Estimated Reduction in VMT

The change in VMT associated with the drive access at Seaplane Lagoon terminal would differ depending for the portion of the existing ferry riders shifting from the Main Street terminal and the new ferry riders from the development at Alameda Point and western Alameda. The available ridership data provided limited information on the proportion for the drive access, so a range was considered. Given the location of Seaplane Lagoon Terminal within the Alameda Point Project and the walk, bike, and transit access improvements associated with the new terminal, a range from 60% to 80% of the drive access passengers in the commute direction were assumed to shift from the Main Street Terminal.

For the reverse commute direction, 5 percent were assumed to shift from the Main Street Terminal and 5 percent were assumed to be new ferry riders that shifted from other transit, leaving 90 percent of new ferry riders that would drive from San Francisco to Alameda Point without the Seaplane Lagoon terminal.

To calculate the reduction in vehicle miles traveled, the average distance for the drive access between Alameda Point and San Francisco was assumed to be 15 miles. For the commute direction, the new ferry riders would be driving to the Seaplane Lagoon Terminal from locations throughout Alameda with an average trip distance of two miles rather than driving 15 miles to San Francisco, resulting in a net trip reduction of 13 miles one-way. For reverse commute trips, an average drive distance of 15 miles was assumed from San Francisco to Alameda Point. This 15-mile vehicle trip would be replaced by the new ferry trips, resulting in a net trip reduction of 15 miles one-way. The average vehicle trip length for ferry riders currently driving to the Main Street terminal was assumed to be same as the trip length to the Seaplane Lagoon terminal, so no reduction was assumed. This resulted in an estimated reduction in a daily VMT due to the new ferry service in the range of between **887-1,343 daily vehicle miles in 2020 and 2,498 - 3,780 daily vehicle miles in 2025**.

Table 3. Estimated VMT Reduction

	Commute Direction (Alameda to SF)				Reverse Commute Direction (SF to Alameda)		
	Ridership Percentage	**Ridership 2020**	**Ridership 2015**		**Ridership Percentage**	**Ridership 2020**	**Ridership 2025**
Weekday Peak Period Ridership (from Table 1)	100%	319	897		100%	32	90
Drive Access (from Table 2)	55%	175	493		--	--	--
Commute Direction							
Low Estimate: 20% new drivers (whose drive trips will be reduced)/ 80% riders whose drive shifts from Main Street Terminal to SPL	20%	35	99				
Daily VMT Reduction (miles)[1]		**456**	**1283**				
High Estimate: 40% new drivers (whose drive trips will be reduced)/60% riders whose drive shifts from Main Street Terminal to SPL	40%	70	197				
Daily VMT Reduction (miles)[1]		**912**	**2565**				
Reverse Commute							
Assumes 90% of new riders would have driven to destination and that all of these trips are now ferry trips					90%	29	81
Daily VMT Reduction (miles)[2]						**431**	**1215**
Total VMT Reduction (includes both commute directions)						**2020**	**2025**
Low Estimate (miles reduced)						887	2498
High Estimate (miles reduced)						1343	3780

Notes:

[1] Average drive access trip distance reduction when driver takes the ferry in the commute direction is assumed to be 13 miles.

[2] Average drive access trip distance reduction when driver takes the ferry in the reverse commute direction is assumed to be 15 miles.

Review of WETA 2015-2025 Ridership Estimates and Approach

In addition to the ridership forecasts, WETA provided 2025 estimate of peak period ridership,[7] which was based on three-year rolling average of historical growth, vessel capacity available during the peak commute hour, and availability of parking. This approach to estimating ridership was used in the Short-Range Transit Plan for the Alameda Main Street service, which assumed another vessel for a total of 3 vessels in 2020 and 400 parking spaces at the Seaplane Lagoon. As shown in Table 7, the ridership for Seaplane Lagoon is estimated by comparing the ridership estimates for Western Alameda with and without the Seaplane Lagoon Terminal.

Table 7. WETA 2015-2025 Ferry Ridership Estimate

Year	Western Alameda w/o Seaplane (Peak Period Only)	Western Alameda w/Seaplane (Peak Period Only)	Seaplane Total Ridership[1]
2015	1,240	1,240	0
2016	1,426	1,426	0
2017	1,640	1,640	0
2018	1,886	1,886	0
2019	2,169	2,169	0
2020	2,277	2,277	0
2021	2,300	2,619	319
2022	2,323	3,012	689
2023	2,346	3,102	756
2024	2,370	3,195	825
2025	2,393	3,291	897

[1]Seaplane Total Ridership represent the difference between the peak period Western Alameda ridership **with** Seaplane Lagoon and the peak period Western Alameda ridership **without** Seaplane Lagoon, as shown in the two columns to the left. Opening year is assumed to be WETA's 2020/2021 fiscal year commencing in 2020 and is shown in their ridership forecast as year 2021

Source: WETA, February 2016.

Due to the peak hour vessel capacity, the growth beyond 2025 is capped at the 897 ridership in 2025. Per communications with WETA, the peak **hour** vessel capacity is estimated at about 70% of the peak period, e.g., 3 AM peak period trips or about 1200 seats, or 800 to 900 peak passengers per day, with about 400 in the AM peak period and 400 in the PM peak period.

[7] Personal communication with Mike Gougherty, WETA on February 2, 2016 and reverse-commute ridership based on FY2015 historical data received on February 4, 2016.

Attachment C

Air Quality and Greenhouse Gas Analysis for Seaplane Lagoon Ferry Terminal

BASELINE ENVIRONMENTAL CONSULTING

MEMORANDUM

Date: March 21, 2016 **Job No.:** 16201-00

To: Hannah Young, Urban Planning Partners, Inc.

From: Patrick Sutton, BASELINE Environmental Consulting

Subject: **Air Quality and Greenhouse Gas Analysis – Seaplane Lagoon Ferry Terminal**

INTRODUCTION

BASELINE Environmental Consulting has prepared this technical memorandum to present the results of an air quality and greenhouse gas (GHG) analysis for the proposed Seaplane Lagoon Ferry Terminal at Alameda Point (project) in the City of Alameda. The proposed project, which would construct and operate a new ferry terminal in Seaplane Lagoon and expand the Water Emergency Transportation Authority's (WETA's) existing ferry service between western Alameda and San Francisco, could result in potential impacts to air quality and climate change from emissions generated during project construction and operation.

The purpose of this analysis is to evaluate the project's consistency with previous environmental review and to determine if the project would result in any new or more severe air quality and GHG impacts. An environmental review for the development of the Seaplane Lagoon Ferry Terminal and operations in Seaplane Lagoon was previously included in the Alameda Point Project (APP) Environmental Impact Report (EIR).[1]

The ferries that will serve the new Seaplane Lagoon Ferry Terminal will be operated by WETA. Operation of ferries serving Alameda has been analyzed by WETA in two EIRs. The San Francisco Bay Area Water Emergency Transportation Authority's (WETA) Program EIR for the Expansion of Ferry Transit Service in the San Francisco Bay Area (WETA PEIR) addressed the expansion of ferry service in San Francisco Bay, including the potential impacts associated with operation of additional and expanded routes. The WETA Environmental Impact Statement/EIR for the Downtown San Francisco Ferry Terminal Expansion Project (SF Expansion EIS/EIR) addressed the expansion of ferry facilities at the San Francisco Ferry Terminal (the destination of the proposed new ferry service from Seaplane Lagoon), including increased ferry trips and ridership. The proposed Seaplane Lagoon Ferry Terminal would not change the operations of the ferries that serve Alameda except that a portion of the ferries would now enter the Seaplane Lagoon. Therefore, this analysis does not include evaluation of impacts associated with expansion of ferry service in San Francisco Bay or increased ferry trips and ridership at the

[1] ESA. 2013. *Draft Environmental Impact Report; Alameda Point Project*. September.

downtown San Francisco Ferry Terminal, which were addressed in the WETA PEIR and SF Expansion EIS/EIR.

This memorandum is organized as follows:

- **Project Consistency Analysis.** Provides an evaluation of the consistency of the proposed project with the evaluation and findings of the APP EIR, as applicable. Where necessary, a project-specific evaluation is provided to verify that the proposed project would not result in air quality and GHG emissions impacts in excess of those evaluated in the APP EIR. The analysis addresses: criteria pollutant emissions, GHG emissions, toxic air contaminants, carbon monoxide emissions, and odors.

- **Attachment A.** Provides a summary of the APP EIR air quality and climate change impact analyses, significance findings, and mitigations measures.

- **Attachment B.** Provides the results of project-specific air quality and GHG emissions evaluations for the proposed ferry operation and parking lot.

PROJECT CONSISTENCY ANALYSIS

Construction and operation of the proposed project could potentially result in air quality and climate change impacts related to the regional emissions of criteria pollutants and GHGs and local emissions of toxic air contaminants (TACs), carbon monoxide (CO), and odors. The project's consistency with the potential air quality and climate change impacts described in the APP EIR is evaluated below. A summary of the previous environmental review for these impacts under the APP EIR in relation to the project is included in Attachment A.

Criteria Pollutant Emissions

The proposed project would generate criteria pollutant emissions during construction and operation. Emissions from project construction activities would include demolition of an existing pier, landside improvements including construction of a parking lot with up to 400 spaces, and construction of a pier and abutment. Emissions from project operation activities would occur from landside activities, such as vehicle transit to and from the project site, and from waterside activities, such as ferry transit between the project site and the San Francisco Ferry Terminal and ferry idling at the project site. Emissions from ferry idling at the San Francisco Ferry Terminal were previously evaluated in the SF Expansion EIS/EIR;[2] therefore, emissions from idling at the San Francisco Ferry Terminal are not evaluated as part of the proposed project.

[2] URS Corporation, 2014. *Final Environmental Impact Statement and Record of Decision/Environmental Impact Report; Downtown San Francisco Ferry Terminal Expansion Project*. September.

Construction

As described under Impact 4.F-1 of the APP EIR (see Attachment A), mitigated emissions of criteria pollutants during construction at Alameda Point were found to result in a significant and unavoidable impact. This impact determination was based on a conservative assumption that approximately 205,000 square feet of general industrial and commercial building uses and 150 dwelling units would be constructed on an annual basis. In addition, it was assumed that approximately 80,000 cubic yards of soil would be imported and 225,000 square feet of existing buildings would be demolished per year. The amount of construction proposed for the project is generally consistent with the conservative construction scenario analyzed under the APP EIR. The following mitigation measures from the APP EIR would apply to the project:

- Mitigation Measure 4.F-1a (Fugitive Dust); and
- Mitigation Measure 4.F-1b (Construction Exhaust).

Implementation of these mitigation measures would reduce the project's criteria pollutant emissions during construction to a level equal to or less than the severity of impact previously identified in the APP EIR.

Operation

As described under Impacts 4.F-2 and 4.F-8 of the APP EIR (see Attachment A), mitigated emissions of criteria pollutants during landside operation at Alameda Point were found to have a significant and unavoidable impact. These impact determinations were based on estimates of average daily mobile, energy, and area emissions of criteria pollutants that would be generated by buildout of landside developments by 2035. Emissions from vehicles accessing the project's proposed parking lot would be consistent with the emissions sources previously analyzed under the APP EIR. The following mitigation measures from the APP EIR (see Attachment A) would apply to the project:

- Mitigation Measure 4.F-2 (Transportation Demand Management);
- Mitigation Measure 4.F-7a (Implement Mitigation Measure 4.F-2);
- Mitigation Measure 4.F-7b (Fuel-Efficient Vehicles); and
- Mitigation Measure 4.F-8 (Implement Mitigation Measures 4.F-2 and 4.F-7b)

In 2014, the *Alameda Point Transportation Demand Management Plan* was prepared to reduce automobile travel, particularly single-occupant-vehicles, generated by development within

Alameda Point.[3] The project would implement Mitigation Measures 4.F-2, 4.F-7a, 4.F-7b, and 4.F-8 by complying with the *Alameda Point Transportation Demand Management Plan*. These mitigation measures would help to reduce the project's criteria pollutant emissions from landside development (i.e., the parking lot).

The project's criteria pollutant emissions during operation were estimated to demonstrate that the combined emissions from landside and waterside developments would be equal to or less than the severity of impacts identified in the APP EIR. Emissions during operation of the project would include vehicle transit, ferry transit, and ferry idling at the Seaplane Lagoon Ferry Terminal. However, since the ferry service would reduce existing emissions from vehicle transit, only new emissions from ferry transit and ferry idling were estimated to conservatively analyze potential impacts from the project. Consistent with the APP EIR, the estimated emissions were compared to the BAAQMD's recommended thresholds of significance.[4]

Emissions from ferry transit and idling were estimated using data and methodologies presented in CARB's (2007) *Emissions Estimation Methodology for Commercial Harbor Craft*. The total ROG, NOx, PM10, and PM2.5 emissions from the project's ferry service were calculated using the following equation:

$$\text{Emissions in pounds} = (EF_0)(F)\left(1 + DF\left(\frac{A}{UL}\right)\right)(HP)(LF)(Hr)\left(\frac{1\ pound}{454\ grams}\right)$$

Where:

- EF_0 = Zero-hour emissions factor (grams/hp-hour)
- F = Fuel correction factor
- DF = Deterioration factor of engine
- A = Age of engine
- UL = Useful life of engine
- HP = Horse power
- LF = Load factor
- Hr = Total operating hours

Based on the project design, is was assumed that the ferry would be similar to a Gemini Class vessel equipped with Selective Catalytic Reduction (SCR) systems. While a new ferry for the project would likely have a Tier 3 or 4 engine, a Tier 2 engine was used to conservatively model the project's emissions. The SCR systems were assumed to reduce emissions of NOx by 97% and

[3] Kimely-Horn and Associates, Inc., 2014. *Alameda Point Transportation Demand Management Plan*. Final Report. May 20.
[4] BAAQMD, 2010. *California Environmental Quality Act Air Quality Guidelines*. May.

PM by 60% relative to emissions from Tier 2 engines.[5] The input parameters and assumptions used for estimated emissions from ferry transit and idling are included in Attachment B.

The average daily and annual emissions of criteria pollutants or precursors during operation of the project are compared to the BAAQMD's thresholds in Table 1. The estimated unmitigated emissions for ROG, NOx, and exhaust PM10 and PM2.5 were below the BAAQMD's thresholds. Therefore, the project's emissions of criteria pollutants would have a less-than-significant impact on ambient air quality standards. Since the project's combined emissions of criteria pollutants would result in an impact equal to or less than the severity of impacts determined in the APP EIR, the project is consistent with previous environmental review (APP EIR Impact 4.F-2, 4.F-7, and 4.F-8).

Table 1: Summary of Criteria Pollutant Emissions during Project Operation

Emissions Scenario	ROG	NOx	PM10	PM2.5	ROG	NOx	PM10	PM2.5
Units	lb/day	lb/day	lb/day	lb/day	ton/yr	ton/yr	ton/yr	ton/yr
Ferry Transit Emissions	13.61	2.51	1.53	1.53	1.722	0.317	0.194	0.194
Ferry Idling Emissions	3.40	0.63	0.38	0.38	0.430	0.079	0.048	0.048
Total Unmitigated Emissions	17	3.1	1.9	1.9	2.2	0.40	0.24	0.24
BAAQMD's Thresholds	54	54	82	54	10	10	15	10

Notes: ton/yr = tons per year; lb/day = pounds per day.
Only PM emissions from exhaust reported.
Source: See Attachment B.

Greenhouse Gas Emissions

Operation

As described under Impacts 4.F-10 and 4.F-11 of the APP EIR (see Attachment A), unmitigated emissions of GHGs during landside operation at Alameda Point were found to have less-than-significant impacts on climate change. These impact determinations were based on the estimated average annual GHG emissions per service population, which included both direct GHG emissions from vehicle trip generation and onsite stationary sources, as well as indirect emissions from offsite electrical generation, solid waste generation, and water conveyance and treatment. Emissions from vehicles accessing the project's proposed parking lot would be consistent with the emissions sources previously analyzed under the APP EIR.

The project's GHG emissions during operation were estimated to determine if the project's combined emissions from landside and waterside developments would result in any new or

[5] Manufacturers of Emission Controls Association, 2014. Case Studies of the Use of Exhaust Controls on Locomotives and Large Marine Diesel Engines.

more severe GHG impacts than identified in the APP EIR. Consistent with the APP EIR, the estimated GHG emissions were compared to the BAAQMD's recommended thresholds of significance.[6]

Total average annual emissions of CO2e during operation of the project were estimated using the same methods and assumptions described for criteria pollutants, above. As shown in Table 2, the estimated unmitigated CO2e emissions during project operation were below the BAAQMD's total annual emissions threshold. Therefore, the project's GHG emissions would have a less-than-significant impact on climate change. Since the project's combined emissions of GHGs would result in an impact equal to or less than the severity of impacts determined in the APP EIR, the project is consistent with previous environmental review.

Table 2: Summary of Average Greenhouse Gas Emissions

Emissions Scenario		CO2e
	Units	MT/yr
Ferry Transit Emissions		852
Ferry Idling Emissions		213
Total Unmitigated Emissions		1,096
BAAQMD's Thresholds		1,100

Notes: MT/yr = metric tons per year.

Toxic Air Contaminants

The proposed project would generate TACs on the project site, particularly diesel particulate matter, from the exhaust of diesel construction equipment and ferry idling at the proposed pier. There are currently no existing sensitive receptors within 1,000 feet of the proposed project. However, construction of Site A, which includes residences and is located northeast of the proposed project, may be at least partially constructed prior to beginning construction on the proposed project; the distance between construction activities for the proposed project and Site A is at least 240 feet. If new residences are developed on Site A within 1,000 feet of the project prior to construction and/or operation, then the project's TAC emissions could potentially affect the health of people located at the new residences (if any).

As described under Impact 4.F-1 of the APP EIR (see Attachment A), mitigated emissions of TACs during construction at Alameda Point were found to be less-than-significant. This impact determination was based on the same conservative assumptions as criteria pollutant emissions described above. The amount of construction proposed for the project is generally consistent

[6] BAAQMD, 2010. *op. cit*.

with the conservative construction scenario analyzed under the APP EIR. The following mitigation measure from the APP EIR would apply to the project if sensitive receptors are located within 1,000 feet of the project:[7]

- Mitigation Measure 4.F-1a (Fugitive Dust);
- Mitigation Measure 4.F-1b (Construction Exhaust);
- Mitigation Measure 4.F-1d (TACs and PM2.5); and
- Mitigation Measure 4.F-4 (Implement Mitigation Measures 4.F-1a, 4.F-1b, and 4.F 1e).

Implementation of these mitigation measures would reduce the project's TAC emissions during construction to a level equal to or less than the severity of impact previously identified in the APP EIR.

As described under Impacts 4.F-3, 4.F-4, and 4.F-9 of the APP EIR (see Attachment A), unmitigated emissions of TACs during landside operation at Alameda Point were found to have less-than-significant impacts on sensitive receptors. TAC emissions during the project's landside operations would primarily be diesel particulate matter from vehicle exhaust and ferry idling (approximately 5-10 minutes per trip) at the proposed pier. Consistent with the APP EIR, TAC emissions from the project's landside operations would have a less-than-significant impact on nearby sensitive receptors (if any).

Carbon Monoxide Emissions

The occurrence of localized CO concentrations, also known as "hotspots," can impact sensitive receptors in local communities. The source of local CO emissions is often associated with heavy traffic congestion, which most frequently occur at signalized intersections of high-volume roadways. As described under Impact 4.F-5 of the APP EIR (see Attachment A), unmitigated emissions of CO during operation at Alameda Point would result in a less-than-significant impact. Emissions of CO from vehicles accessing the project's proposed parking lot would be consistent with the emissions sources previously analyzed under the APP EIR.

Odors

Typical odor sources are generally associated with municipal, industrial, or agricultural land uses, such as wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source, the wind

[7] As noted under Criteria Pollutants above, Mitigation Measures 4.F-1a and 4.F-1b are required for the project to address criteria pollutant impacts.

speed and direction, and the sensitivity of receptors. As described under Impact 4.F-6 of the APP EIR (see Attachment A), odors at Alameda Point would have a less-than-significant impact on existing and future receptors. Since the project would not be expected to generate significant odors, the project is consistent findings of the APP EIR.

CONCLUSION

The construction and operation of the Seaplane Lagoon Ferry Terminal within Seaplane Lagoon are consistent with the analysis of applicable environmental impacts identified in the APP EIR. The project's estimated combined emissions of criteria pollutants and GHGs from landside and waterside developments were below the BAAQMD's thresholds of significance; therefore, the project would not result in new or substantially more severe significant air quality and GHG impacts than the impacts identified in the APP EIR.

ATTACHMENTS

ATTACHMENT A

Previous Environmental Review

PREVIOUS ENVIRONMENTAL REVIEW

Alameda Point Project Environmental Impact Report

The APP EIR analyzed air quality and GHG impacts associated with the redevelopment and reuse of the 878 acres of land and approximately 1,229 acres of water at the former Naval Air Station Alameda, at the western end of the City of Alameda. This included development of the Seaplane Lagoon Ferry Terminal and operations within the Seaplane Lagoon. The applicability of impacts and mitigation measures identified in the APP EIR for the proposed project are described, below.

Impact 4.F-1: Development facilitated by proposed project could potentially result in air quality impacts due to construction activities.

The APP EIR determined that unmitigated emissions of criteria air pollutants (ozone precursors and fugitive dust) and TACs (diesel particulate matter) during construction could result in a potentially significant impact. Therefore, all construction activities at Alameda Point would be required to implement Mitigation Measure 4.F-1a (Fugitive Dust), Mitigation Measure 4.F-1b (Construction Exhaust), Mitigation Measure 4.F-1c (Demolition Controls), Mitigation Measure 4.F-1d (TACs and PM2.5), and Mitigation Measure 4.F-1e (Delayed Occupancy). While mitigation was found to reduce impacts from diesel particulate matter and fugitive dust to a less-than-significant level, the EIR determined that the air quality impacts from emissions of ozone precursors during construction would remain significant and unavoidable.

Proposed Project: Since construction for the proposed project would generate criteria pollutant emissions, the proposed project is consistent with this impact analysis and Mitigation Measure 4.F-1a (Fugitive Dust) and Mitigation Measure 4.F-1b (Construction Exhaust) would apply to the proposed project. In addition, although asbestos-containing material would not be expected during demolition of the existing pier on the project site, if it is encountered, Mitigation Measure 4.F-1c (Demolition Controls) would apply to the project. The project would generate TAC emissions, but there are currently no existing sensitive receptors within 1,000 feet of the proposed project.[8] However, construction of Site A, which includes residences and is located northeast of the proposed project, may be at least partially constructed prior to beginning construction on the proposed project; the distance between construction activities for the proposed project and Site A is at least 240 feet. Construction of Site B will not introduce sensitive receptors within 1,000 feet of the project. If new residences are developed on Site A within 1,000 feet of the project prior to construction, then the project's TAC emissions could potentially affect the health of people located at the new residences (if any). Therefore, Mitigation Measure 4.F-1d (TACs and PM2.5) would only apply to the project if new residential development at Site A is completed within 1,000 feet of the project prior to construction. Mitigation Measure 4.F-1e (Delayed Occupancy) would not apply to the project because the project does not include new residences.

[8] As described in the APP EIR, the BAAQMD recommends evaluating potential impacts of TAC emissions to sensitive receptors located within 1,000 feet of a project.

Impact 4.F-2: Development facilitated by the proposed project could potentially generate operational emissions that would result in a considerable net increase of criteria pollutants and precursors for which the air basin is in nonattainment under an applicable federal or state ambient air quality standard.

The APP EIR determined that unmitigated emissions of criteria air pollutants (ozone precursors, PM10, and PM2.5) during operation could result in a potentially significant impact. Therefore, all development at Alameda Point would be required to comply with Mitigation Measure 4.F-2 (Transportation Demand Management program and building design requirements). While mitigation was found to reduce emissions of criteria pollutants during operation, the APP EIR determined that the impact would remain significant and unavoidable.

Proposed Project: Since operation of the proposed project would generate criteria pollutant emissions, the proposed project is consistent with this impact analysis and the project must comply with a Transportation Demand Management program, as described under Mitigation Measures 4.F-2. However, the building design requirements described under Mitigation Measure 4.F-2 would not apply to the proposed project because the project would not include any new buildings.

Impact 4.F-3: Operation of the development facilitated by the proposed project could potentially expose sensitive receptors to substantial concentrations of toxic air contaminants or respirable particulate matter (PM2.5).

The APP EIR determined that unmitigated emissions of TACs during operation would have a less-than-significant impact on existing sensitive receptors within 1,000 feet of the APP area.

Proposed Project: Since new residential development at Site A could potentially be completed within 1,000 feet of the project site prior to operation, the proposed project is consistent with this impact analysis.

Impact 4.F-4: Development facilitated by the proposed project could potentially expose persons (new receptors) to substantial levels of TACs, which may lead to adverse health.

The APP EIR determined that unmitigated emissions of TACs during construction could have a significant impact on new sensitive receptors. Implementation of Mitigation Measure 4.F-4 (Implement Mitigation Measures 4.F-1a, 4.F-1b, and 4.F 1e) was found to reduce this impact to a less-than-significant level.

Proposed Project: Since the project would generate TACs, and new residential development at Site A could potentially be completed within 1,000 feet of the project site prior to construction, the proposed project is consistent with this impact analysis.

Impact 4.F-5: Development facilitated by the proposed project could potentially expose sensitive receptors to substantial carbon monoxide concentrations.

The APP EIR determined that unmitigated emissions of CO during operation would have a less-than-significant impact on sensitive receptors.

Proposed Project: Since vehicle traffic related to the project would generate CO emissions, the proposed project is consistent with this impact analysis

Impact 4.F-6: Development facilitated by the proposed project could potentially create objectionable odors affecting a substantial number of people.

The APP EIR determined that unmitigated odors during operation would have a less-than-significant impact on the public.

Proposed Project: Since the project could potentially expose the public to existing sources of odors, the proposed project is consistent with this impact analysis.

Impact 4.F-7: Development facilitated by the proposed project could potentially conflict with or obstruct implementation of the applicable air quality plan.

The APP EIR determined that unmitigated emissions of criteria pollutants during operation could result in a significant impact related to implementation of the BAAQMD's CAP. Implementation of Mitigation Measure 4.F-7a (Implement Mitigation Measure 4.F-2) and Mitigation Measure 4.F-7b (Fuel-Efficient Vehicles) would reduce this impact to a less-than-significant level.

Proposed Project: Since the project would generate criteria pollutant emissions, the proposed project is consistent with this impact analysis and the project must comply with a Transportation Demand Management program, as described under Mitigation Measures 4.F-7a and 4.F-7b. However, the building design requirements described under Mitigation Measure 4.F-7a would not apply to the proposed project because the project would not include any new buildings.

Impact 4.F-8: Development facilitated by the proposed project, when combined with past, present and other reasonably foreseeable development in the vicinity, could potentially result in cumulative criteria air pollutant air quality impacts.

The APP EIR determined that unmitigated emissions of criteria air pollutants (ozone precursors, PM10, and PM2.5) during operation could result in a significant cumulative impact. Therefore, all development at Alameda Point would be required to comply with Mitigation Measure 4.F-8 (Implement Mitigation Measures 4.F-2 and 4.F-7b). While mitigation was found to reduce emissions of criteria pollutants during operation, the EIR determined that the cumulative impact would remain significant and unavoidable.

Proposed Project: Since operation of the proposed project would generate criteria pollutant emissions, the proposed project is consistent with this impact analysis and the project must comply with a Transportation Demand Management program, as described under Mitigation Measures 4.F-8. However, the building design requirements described under Mitigation Measure 4.F-8 would not apply to the proposed project because the project would not include any new buildings.

Impact 4.F-9: Development facilitated by the proposed project could cumulatively expose persons to substantial levels of TACs, which may lead to adverse health effects.

The APP EIR determined that unmitigated emissions of TACs during operation would have a less-than-significant cumulative impact on existing sensitive receptors within 1,000 feet of the APP area.

Proposed Project: Since new residential development at Site A could potentially be completed within 1,000 feet of the project site prior to operation, the proposed project is consistent with this impact analysis.

Impact 4.F-10: Development facilitated by the proposed project could potentially generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

The APP EIR determined that unmitigated emissions of GHGs during construction and operation would have a less-than-significant impact on climate change.

Proposed Project: Since the project would generate GHGs emissions, the proposed project is consistent with this impact analysis.

Impact 4.F-11: Development facilitated by the proposed project could potentially conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

The APP EIR determined that unmitigated emissions of GHGs during construction and operation would have a less-than-significant impact on the attainment of GHG reduction goals established pursuant to AB 32.

Proposed Project: Since the project would generate GHGs emissions, the proposed project is consistent with this impact analysis.

ATTACHMENT B

Air Quality Model Input Parameter and Results

Summary of Input Parameters for Ferry Service Emissions

Vessel Type	Gemini Class
Engine Type	2007 Tier 2
Retrofit Technology	Selective Catalytic Reduction
Main Engine Power (hp)	1,950
Auxiliary Engine Power (hp)	111
Miles per round trip	9.46
Transit minutes per round trip	40
Idling minutes per round trip	10
Round trips per day	5
Days per year	253

Summary of Model Parameters for Ferry Emissions

Model Input Parameters						ROG			NOx			Exhaust PM10			Exhaust PM2.5			CO2	CH4	N20	Priority Criteria Pollutants				GHGs
Activity	Marine Vessel Engine	hp[2]	LF[1]	A[2]	UL[1]	EF[1]	F[1]	D[1]	EF[1]	F[1]	D[1]	EF[1]	F[1]	D[1]	EF[1]	F[1]	D[1]	EF[3]	EF[3]	EF[3]	ROG (lbs/yr)	NOx (lbs/yr)	Exhaust PM10 (lbs/yr)	Exhaust PM2.5 (lbs/yr)	CO2eq (lbs/yr)
Transit	Propulsion Engine (1)	1950	0.42	28	20	0.68	1.0	0.44	5.5	0.95	0.21	0.20	0.80	0.67	0.20	0.80	0.67	592	0.003	0.026	1672	10320	472	472	912,874
	Propulsion Engine (2)	1950	0.42	28	20	0.68	1.0	0.44	5.5	0.95	0.21	0.20	0.80	0.67	0.20	0.80	0.67	592	0.003	0.026	1672	10320	472	472	912,874
	Auxiliary Engine	111	0.43	28	20	0.81	1.0	0.28	5.1	0.95	0.14	0.22	0.80	0.44	0.22	0.80	0.44	592	0.003	0.026	100	513	25	25	53,201
Idling	Propulsion Engine (1)	1950	0.42	28	20	0.68	1.0	0.44	5.5	0.95	0.21	0.20	0.80	0.67	0.20	0.80	0.67	592	0.003	0.026	418	2580	118	118	228,219
	Propulsion Engine (2)	1950	0.42	28	20	0.68	1.0	0.44	5.5	0.95	0.21	0.20	0.80	0.67	0.20	0.80	0.67	592	0.003	0.026	418	2580	118	118	228,219
	Auxiliary Engine	111	0.43	28	20	0.81	1.0	0.28	5.1	0.95	0.14	0.22	0.80	0.44	0.22	0.80	0.44	592	0.003	0.026	25	128	6	6	13,300

Notes:
Based on WETA's existing Gemini Class vessels, all engines are conservatively assumed to be EPA (2007) certified Tier 2 diesel engines.
The engine deterioration factor for ROG assumed to equal the engine deterioration factor for hydrocarbons.
Emissions factor units = g/hp-hr
Criteria Pollutant Emissions = [EF x F x (1 + D x A/UL) x hp x LF x hr)]/454 g/lbs
GHG emissions = [EF x hp x LF x hr)]/454 g/lbs
CO2eq = CO2 x GWP_{CO2} + CH4 x GWP_{CH4} + N2O x GWP_{N2O}

Global Warming Potentials (GWP)

CO2	1
CH4	25
N2O	298

Source: Title 40 Code of Federal Regulations, Chapter I, Subchapter C, Part 98, Subpart A, Table A-1

lbs = pounds
g = grams
hp = horse power
hr = hours
EF = emission factor
F = fuel correction factor
D = deterioration factor
LF = load factor
A = engine age
UL = useful life

ROG = reactive organic gases
NOx = nitrogen oxides
PM10 = particulate matter less than 10 microns in diameter
PM2.5 = particulate matter less than 2.5 microns in diameter
CO2 - carbon dioxide
CH4 = methane
N2O = nitrous oxide
CO2eq - carbon dioxide equivalent
GHGs = greenhouse gases

[1] Load factors, useful life, emissions factors, fuel correction factors, and engine deterioration factors derived from the CARB's (2007) *Emissions Estimation Methodology for Commercial Harbor Craft Operating in California.*
[2] The main engine horsepower based on the project description. The auxiliary engine horsepower and average age of a ferry vessel derived from CARB's (2004) *Statewide Commercial Harbor Craft Survey* .
[3] GHG emissions factors derived from EPA's (2014) *Emission Factors for Greenhouse Gas Inventories* . The emissions factors were converted from g/gal to g/hp-hr using CARB's (2007) brake specific fuel consumption rate of 0.058 gal/hp-hr for commercial harbor craft.

Attachment D

Noise and Vibration Analysis for Seaplane Lagoon Ferry Terminal Project

BASELINE ENVIRONMENTAL CONSULTING

MEMORANDUM

Date: March 21, 2016 **Job No.:** 16201-00.02400

To: Hannah Young, AICP, Urban Planning Partners, Inc.

From: James McCarty, P.E., BASELINE Environmental Consulting

Subject: **Noise and Vibration Analysis, Seaplane Lagoon Ferry Terminal Project**

INTRODUCTION

BASELINE Environmental Consulting has prepared this technical memorandum to present the results of a noise and vibration impact analysis for the proposed Seaplane Lagoon Ferry Terminal at Alameda Point ("proposed project") in the City of Alameda. The proposed project would expand the Water Emergency Transportation Authority's (WETA's) exiting ferry service between western Alameda and San Francisco with construction of a new ferry terminal at Seaplane Lagoon and ferry service from the new terminal to the downtown San Francisco Ferry Terminal.

An environmental review for the project was previously included in the Alameda Point Project Environmental Impact Report (APP EIR).[1] The purpose of this noise and vibration analysis is to evaluate the project's consistency with this previous environmental review and to determine if the project would result in any new or more severe noise and vibration impacts. The ferries that will serve the new Seaplane Lagoon Ferry Terminal will be operated by WETA and operation of ferries serving Alameda has been analyzed by WETA in two EIRs. The San Francisco Bay Area Water Emergency Transportation Authority's (WETA) Program EIR[2] for the Expansion of Ferry Transit Service in the San Francisco Bay Area (WETA PEIR) addressed the expansion of ferry service in San Francisco Bay, including the potential impacts associated with operation of additional and expanded routes. The WETA Environmental Impact Statement/EIR for the Downtown San Francisco Ferry Terminal Expansion Project (SF Expansion EIS/EIR)[3] addressed the expansion of ferry facilities at the San Francisco Ferry Terminal (the destination of the proposed new ferry service from Seaplane Lagoon), including increased ferry trips and ridership. The proposed Seaplane Lagoon Ferry Terminal would not change the operations of the ferries that serve Alameda except that a portion of the ferries would now enter the Seaplane Lagoon. Therefore, this noise and vibration analysis does not include evaluation of noise and vibration impacts associated with expansion of ferry service in San Francisco Bay or increased ferry trips and ridership at the downtown San Francisco Ferry Terminal, which were addressed in the WETA PEIR and SF Expansion EIS/EIR.

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[1] ESA, 2013. *Final Environmental Impact Report; Alameda Point Project*, December.
[2] URS Corporation, 2003. *Final Program Environmental Impact Report; Expansion of Ferry Transit Service in the San Francisco Bay Area*, June.
[3] URS Corporation, 2014. *Final Environmental Impact Statement and Record of Decision/Environmental Impact Report; Downtown San Francisco Ferry Terminal Expansion Project*, September.

This memorandum is organized as follows:

- **Project Consistency Analysis.** Provides an evaluation of the consistency of the proposed project with the evaluation and findings of the APP EIR, as applicable. Where necessary, a project-specific evaluation is provided to verify that the proposed project would not result in noise or vibration impacts in excess of those evaluated in the APP EIR.
- **Attachment A.** Provides a summary of the APP EIR noise and vibration impact analyses, significance findings, and mitigations measures.
- **Attachment B.** Provides the results of project-specific noise evaluations for proposed ferry operation and parking lot.

PROJECT CONSISTENCY ANALYSIS

Construction and operation of the proposed project could potentially result in noise and vibration impacts. The project's consistency with the previous environmental review for potential noise and vibration impacts is evaluated below.

Construction

Construction facilitated by the proposed project could potentially expose persons to or generate noise levels in excess of the City noise standards.
(APP EIR Impact 4.G-1)

Landside and Waterside

Construction activities that would occur with the implementation of the proposed project would include demolition of existing deteriorating wooden pier structure and one existing structure located within the proposed parking lot footprint; construction of parking lot, pedestrian and bicycle pathways, and stormwater controls; removal of shoreline riprap, soil improvements, and construction of new abutment; installation of piers and float piles, installation of float and gangway; and installation of utilities. Construction of the proposed project is anticipated to start in 2019 and would require approximately one year to complete. Construction would occur during weekdays and on weekends, if needed. The noise impacts from construction were mitigated in the APP EIR to the extent feasible with the development of Mitigation Measures 4.G-1a through 4.G-1d but were found to remain significant and unavoidable. The proposed project would be required to implement these mitigation measures.

The nearest existing residential receptors are located over 1,500 feet to the east across Main Street; however, construction of Alameda Point development Site A, which includes residences and is located northeast of the proposed project, may be at least partially constructed prior to the operation of the Seaplane Lagoon Ferry Terminal; the distance between construction

activities for the proposed project and Site A is at least 240 feet. Since the APP EIR evaluated the noise impacts to receptors within 50 feet, the construction noise impact from implementation of the proposed project would not be greater than identified and mitigated in the APP EIR. Since the APP EIR noise impact evaluation included various types of typical construction activities, including pile driving and other construction techniques that will be used for the construction of the ferry terminal project, no new or greater noise impacts would be expected from implementation of the proposed project beyond what was evaluated in the APP EIR.

Construction facilitated by the proposed project could potentially result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. (APP EIR Impact 4.G-2)

For evaluation of human annoyance or damage to buildings from construction-induced vibration, the APP EIR calculated the vibration impact at 50 feet from large construction equipment and vibration generating activities, such as pile driving and drilling. The calculated vibration impact from sonic or impact pile driving at 50 feet was estimated to exceed the human annoyance threshold of 80 vibration decibels (Vdb). Impact pile driving was also estimated to exceed the building damage threshold of 0.2 peak particle velocity (PPV).

However, the APP EIR determined that with the implementation of Mitigation Measure 4.G-2, which required the implementation the Mitigation Measures 4.G-1a through 4.G-1d, the impact would be less than significant. A key component of these mitigation measures in respect to the mitigation of vibration impacts from pile driving is the requirement that pile driving use “quiet” pile driving technology, such as sonic pile driving instead of impact pile driving, where feasible. However, it is anticipated due to geologic conditions that impact pile driving will be required. To verify that pile driving and other construction activities would not expose persons to excessive vibration at the nearest occupied building (Building 15, located approximately 175 feet away from the project boundary) or damage the nearest building (Building 64, located approximately 100 feet away from the project boundary), the vibration levels from construction was estimated as shown in Table 1, below.

Table 1 Construction Vibration Calculations

Equipment Activity	PPV at 25 feet (in/sec)	PPV at 100 feet (in/sec)	RMS at 25 feet (Vdb)	RMS at 175 feet (Vdb)
Large Bulldozer	0.089	0.011	87	62
Loaded Trucks	0.076	0.0095	86	61
Pile Driver (Impact)	0.644	0.081	104	79
Piled Driver (Sonic)	0.170	0.021	93	68
Caisson Drilling	0.089	0.011	87	62

Where:

$PPV_{(D)} = PPV_{(reference)} X (25/D)^{1.5}$
$PPV_{(reference)}$ = peak particle velocity at 25 feet
D = distance to nearest receptor

$Lv(D) = Lv_{(reference)} – 30log(D/25)$
$Lv_{(reference)}$ = vibration level in Vdb at 25 feet
D = distance to nearest receptor

As shown on Table 1, the vibration impact from various types of construction activities (including pile driving) would not result in vibrations above the human annoyance threshold of 80 Vdb or building damage thresholds of 0.2 PPV. Therefore, no new vibration impacts would be expected from implementation of the proposed project beyond what was evaluated in the APP EIR.

Operation

Transportation-related operations facilitated by the proposed project could potentially result in a substantial permanent increase in ambient noise levels in the vicinity or above levels existing without the project.
(APP EIR Impact 4.G-3)

Landside

Expanding ferry service, in addition to other public transit and pedestrian/biking alternatives, is a key component of the Alameda Point Transportation Demand Management Plan and the Alameda Point Town Center and Waterfront Precise Plan, providing as part of an overall strategy for reducing traffic congestion in Alameda. The proposed addition of a second ferry terminal in western Alameda, to supplement the existing Main Street Ferry Terminal, would help to reduce traffic congestion in Alameda both by expanding transit options as an alternative to vehicular trips and by dispersing vehicular trips to access ferry transit between the two western Alameda ferry terminal locations. Therefore, the proposed project would not result in on-road transportation noise impacts beyond what was determined in the APP EIR.

Strategies to reduce automobile trips that would result from future development within Alameda Point (particularly with respect to single-occupant vehicle trips) have been developed

in the Alameda Point Transportation Demand Management Plan.[4] One of the primary strategies of the plan is to shift trips from single-occupant-vehicles to public transit, such as the proposed ferry. The proposed project is consistent with the City's Transportation Demand Management program and would assist the City in achieving the program objectives. Therefore, no new or greater noise impacts would be expected from landside transportation-related operations of the project, beyond what was evaluated in the APP EIR.

To quantify the existing noise environment for the APP EIR, noise level measurements [both long-term (24-hour) and short-term (5-minute)] were taken within APP boundaries. The nearest noise measurements to the proposed Seaplane Lagoon Ferry Terminal project were taken near the intersection of Main Street and Atlantic Avenue (one long-term and one short-term) and near the intersection of Viking Street and W. Hornet Avenue (one short-term). The results of the long-term measurement indicated that the ambient noise levels ranged from 57 to 64 dBA[5] CNEL[6] near Main Street. The short term measurements indicated that ambient noise level during the daytime ranged from 50 dBA Leq[7] near Main Street to 51 dBA Leq along the southern shoreline.

The Seaplane Lagoon Ferry Terminal would serve a commute-oriented route between Seaplane Lagoon and San Francisco, with three AM peak period departures to San Francisco and two return trips to Seaplane Lagoon (between 6 to 9 AM) and three PM peak period departures to Seaplane Lagoon and two return trips to San Francisco (between 4 to 8 PM). The operation of the ferry, approaching, docking, idling, and departing would generate noise, primarily associated with the ferry's engine. The project level noise impact at the nearest residential and commercial receptors from the ferry operating at the terminal was evaluated using the Federal Transit Administration (FTA) Noise Impact Assessment Spreadsheet for ferry operations assuming one ferry landing per hour and includes the use of a horn to announce arrivals and departures (Attachment B).The evaluation indicates that there would be a 1 dBA Leq increase in noise at the nearest commercial building (Building 64), located approximately 170 feet to the south. A 1 dBA increase would not be perceptible. In addition, the project would not increase noise levels at the nearest future residential receptors at Site A, located approximately 770 feet to the north. Therefore, no new or greater noise impacts would be expected from implementation of the proposed project associated with the waterside activities beyond what was evaluated in the APP EIR.

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[4] Kimley-Horn and Associates, Inc., 2014. *Final Report, Alameda Point Transportation Demand Management Plan*, May 20.
[5] Expression of the relative loudness of sounds in air as perceived by the human ear.
[6] The average sound level over a 24-hour period, with a penalty of 5 dBA added between 7 PM and 10 PM and a penalty of 10 dBA added for the nighttime hours of 10 PM to 7 AM.
[7] Equivalent continuous noise level.

Non-transportation-related operations facilitated by the proposed project could potentially result in a substantial permanent increase in ambient noise levels in the vicinity. (APP EIR Impact 4.G-4)

Landside

The proposed project would not include any non-transportation noise sources such heating, ventilating, and air conditioning systems; loading docks; or recreational uses, as evaluated in the APP EIR. The operation of the proposed parking lot used for commuter parking could result in a significant noise impact if the noise exceeds the City's noise standards. Activities that may occur in parking lots, such as vehicles pulling into or out of the parking lot, commuters conversing, or occupants closing automobile doors when entering or exiting the vehicle can result in noise impacts to surrounding land uses. APP EIR Mitigation Measure 4.G-4 recommends siting non-transportation noise sources as far as possible and/or shielded from nearby noise sensitive land uses to meet City noise standards, summarized in Tables 2 and 3, below.

TABLE 2 RECEIVING LAND USE - Single or Multiple Family Residential, School, Hospital, Church, or Public Library Properties, Noise Level Standards, dBA

Cumulative Number of Minutes in Any One (1) Hour Time Period	Daytime (7:00 AM to 10:00 PM)	Nighttime (10:00 PM to 7:00 AM)
30	55	50
15	60	55
5	65	60
1	70	65
0	75	70

Source: City of Alameda Municipal Code, Article II, Section 4-10.4

TABLE 3 RECEIVING LAND USE - Commercial Properties, Noise Level Standards, dBA

Cumulative Number of Minutes in Any One (1) Hour Time Period	Daytime (7:00 AM to 10:00 PM)	Nighttime (10:00 PM to 7:00 AM)
30	65	60
15	70	65
5	75	70
1	80	75
0	85	80

Source: City of Alameda Municipal Code, Article II, Section 4-10.4

The parking lot would be expected to have low turnover, i.e., vehicles would arrive in the morning for the 6 to 9 AM morning commute, stay most of the day, and depart after the afternoon/evening 4 to 8 PM commutes. Using Federal Transit Administration methodology[8] and assuming that in one hour 200 vehicles use the lot and two buses would make stops adjacent to the lot, the noise at 50 feet from the parking lot operation would be 58 dBA Leq. The nearest existing sensitive noise receptors are located over 1,500 feet from the proposed parking area and would not be expected to be impacted by noise from the parking lot operation. Future residential receptors at Site A would be located at least 250 feet away. Considering that the noise level decreases at least 6 dBA with each doubling of distance, the noise from the parking lot would not exceed the City's noise standards at the existing or future sensitive receptors. Therefore, the specific noise control mitigation measures for mechanical equipment, landscape equipment, truck deliveries, and outdoor use of amplified sound systems suggested in Mitigation Measure 4-G.4 would not be required but the parking lot would comply with the mitigation measure requirement that project applicant to comply with the Noise Ordinance and General Plan standards. No additional mitigation measures would be required and the implementation of the proposed project would not result in new or greater noise impacts beyond what was evaluated in the APP.

Waterside

The proposed Seaplane Ferry Terminal would be designed as an unmanned facility, and once operational, would be open only when a vessel is at the terminal, generally for 5 to 10 minutes and, therefore, the noise from the passenger loading and unloading would not be considered a substantial source of noise. The proposed project includes an emergency generator at the ferry terminal; however, this equipment would only be used during emergencies and routine testing (generally less than 50 hours per year) and would also not be considered a substantial source of noise. Therefore, the non-transportation noise from the operation of the proposed ferry terminal would not result in new or greater significant noise impacts beyond what was determined in the APP EIR.

Increases in traffic from development facilitated by the proposed project in combination with other development could potentially result in cumulatively considerable noise increases. (APP EIR Impact 4.G-6)

Landside

As previously stated, expanding ferry service, in addition to other public transit and pedestrian/biking alternatives, is a key component of the Alameda Point Transportation Demand Management Plan and the Alameda Point Town Center and Waterfront Precise Plan,

[8]Federal Transit Administration 2006. *Transit Noise and Vibration Assessment*, May.

providing as part of an overall strategy for reducing traffic congestion in Alameda. The APP EIR recommended implementing Mitigation Measures 4.G-3 and 4.G-5 to mitigate cumulative noise impacts from traffic. As discussed in relation to Impact 4.G-3, the proposed addition of a second ferry terminal in western Alameda, to supplement the existing Main Street Ferry Terminal, would help to reduce traffic congestion in Alameda both by expanding transit options as an alternative to vehicular trips and by dispersing vehicular trips to access ferry transit between the two western Alameda ferry terminal locations, and therefore, is consistent with the goals and strategies of the Transportation Demand Management program. APP EIR Impact 4.G-5 not apply because is addresses the siting of residential developments. Therefore, the proposed project would not result in on-road transportation noise impacts beyond what was determined in the APP EIR.

CONCLUSION

The proposed project's landside and waterside developments are consistent with the analysis of noise and vibration impacts identified in the APP EIR. This project-specific analysis were performed to evaluate the potential vibration impacts from construction-related pile driving and the noise impacts from operation of the ferry at the terminal and use of the parking lot. With regard to noise associated with land-side transportation, primarily personal vehicles, the proposed project was determined to be consistent with the goals and strategies of City's Transportation Demand Management program and would not result in new traffic-related noise impacts beyond what was evaluated in the APP EIR. The proposed project's noise and vibration impacts would not result in any new or more severe noise and vibration impacts than the impacts identified in the APP EIR and no new mitigation measures would be required.

ATTACHMENT A
PREVIOUS ENVIRONMENTAL REVIEW

Alameda Point Project Environmental Impact Report

The APP EIR evaluated the potential environmental impacts associated with the redevelopment and reuse of the 878 acres of land and approximately 1,229 acres of water at the former Naval Air Station Alameda, located at the western end of the City. Among other project components, the APP EIR evaluated the development of the Seaplane Lagoon Ferry Terminal and use of the Lagoon for maritime uses, including ferry operations. The applicability of impacts and mitigation measures identified in the APP EIR for the proposed project are described, below.

Note that the APP EIR determined that the APP is located approximately four miles northwest of the Oakland International Airport and 10 miles north of the San Francisco International Airport and is not within the County Airport Policy Plan. Because there are no public airports or private airstrips within two miles of the project, aircraft related noise was not considered to be a significant impact for land uses to be developed under the proposed project and is not discussed further.

Impact 4.G-1: Construction facilitated by the proposed project could potentially expose persons to or generate noise levels in excess of the City noise standards. (Significant and Unavoidable)

The APP EIR evaluated the noise impact from typical construction activities such a ground clearing, excavations, and building and infrastructure construction. The APP EIR also evaluated the potential noise impacts from pile driving as it was anticipated that pile driving would be used for the shoreline improvements along the northern shoreline and around Seaplane Lagoon. The assessment assumed that the distance between construction activities and sensitive (residential) receptors could be 50 feet on-site and 70 feet off-site. Although construction activities are exempt from the City's noise standards (Noise Ordinance) if the construction is limited to the hours of 7:00 AM and 7:00 PM Monday through Friday and 8:00 AM to 5:00 PM on Saturday,[9] the APP EIR determined that the increase in noise due to construction would be potentially significant and the following mitigation measures were identified:

Mitigation Measure 4.G-1a: The City will require construction contractors to limit standard construction activities hours to be in compliance with the Noise Ordinance. Pile driving activities greater than 90 dBA limited to between 8:00 AM and 4:00 PM Monday through Friday. No pile driving shall be allowed on weekends and National holidays.

Mitigation Measure 4.G-1b: To reduce daytime noise impacts due to construction, the City will require construction contractors to implement the following measures:

- Equipment and trucks used for project construction will utilize the best available noise control techniques, such as improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible.

[9] City of Alameda Municipal Code, Section 4-10.5(b)10

- Impact tools (i.e., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust will be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves will be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures will be used, such as drills rather than impact equipment, whenever feasible.

- Stationary noise sources will be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures to the extent feasible.

- Haul routes that affect the fewest number of people will be selected.

Mitigation Measure 4.G-1c: Pile driving activities within 300 feet of sensitive receptors will require additional noise attenuation measures. Prior to commencing construction, a plan for such measures will be submitted for review and approval by the City to ensure that maximum feasible noise attenuation will be achieved. These attenuation measures will include as many of the following control strategies as feasible:

- Erect temporary plywood noise barriers if they would block the line of sight between sensitive receptors and construction activities, particularly for existing residences in the northern area of the project site and for residences across Main Street;

- Implement "quiet" pile driving technology (such as pre-drilling of piles or use of sonic pile drivers), where feasible, in consideration of geotechnical and structural requirements and conditions; and

- Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site.

Mitigation Measure 4.G-1d: Prior to the issuance of each building permit, along with the submission of construction documents, the project applicant will submit to the City a list of measures to respond to and track complaints pertaining to construction noise. These measures will include:

- Signs will be posted at the construction site that include permitted construction days and hours, a day and evening contact number for the job site, and a contact number with the City in the event of noise complaints. The project applicant will designate an onsite complaint and enforcement manager to track and respond to noise complaints; and

- Notification of neighbors within 300 feet of the project construction area at least 30 days in advance of pile-driving activities about the estimated duration of the activity.

The APP EIR found that implementation of the above mitigation measures would ensure that construction of the proposed project would comply with the City's Noise Ordinance and would reduce the construction noise levels from the project to the extent feasible. However, since certain construction activities may need to occur outside of the allowable hours and could result in substantial noise in the more sensitive evening and nighttime hours, construction noise impacts were considered to be significant and unavoidable.

Since the proposed project involves demolition of existing deteriorating wooden pier structure; construction of parking lot, pedestrian and bicycle pathways, bus stop and turnaround, and stormwater controls; removal of shoreline riprap, soil improvements, and construction of a new abutment; installation of piers and float piles (which would require pile driving), installation of float and gangway; and installation of utilities, this impact and Mitigation Measures 4.G-1a through 4.G-1d would apply to the proposed project.

Impact 4.G-2: Construction facilitated by the proposed project could potentially result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. (Less than Significant)

Similar to the construction noise evaluation preformed in the APP EIR, the construction vibration evaluation considered the potential vibration impacts from various types of construction equipment or activities to determine if the activities would result in excessive vibration, which was defined as a vibration level above 0.2 PPV, a threshold level to protect against damage to nearby buildings, and 80 Vdb, which is the vibration threshold for human annoyance. The evaluation found that pile driving could impact receptors within 50 feet; but that implementation of the following mitigation measure would reduce the impact to less than significant.

Mitigation Measure 4.G-2: Implement Mitigation Measures 4.G-1a through 4.G-1d.

These mitigation measures would reduce groundborne vibration and noise by requiring "quiet pile driving" techniques (pre-drilling and/or sonic pile drivers), limiting the hours of construction, and notifying nearby sensitive receptors of pile driving activity and duration. The APP EIR found that mitigation measures would reduce construction vibration levels to the extent feasible and result in less-than-significant vibration impacts.

Mitigation Measure 4.G-2: Implement Mitigation Measures 4.G-1a through 4.G-1d.

Since the proposed project includes pile driving for the ferry pier construction, this impact and Mitigation Measure 4.G-2 would apply to the proposed project.

Impact 4.G-3: Transportation-related operations facilitated by the proposed project could potentially result in a substantial permanent increase in ambient noise levels in the vicinity or above levels existing without the project. (Significant and Unavoidable)

The APP EIR evaluated the transportation noise impact related to vehicle traffic. The significance criteria used in the evaluation was whether implementation of the project would result in:

1) A 4 dBA CNEL increase in noise as a result of project operations if the resulting noise level would exceed that described as normally acceptable for the affected land use (60 dBA DNL or less for residential uses); or
2) Any increase of 6 dBA or more CNEL, due to the potential for adverse community response.

The APP EIR also determined that the APP would result in cumulatively considerable noise impact if the cumulative noise increase including the project results in a 5 dBA permanent increase in ambient noise levels along roadways (i.e., the cumulative condition including the project compared to the existing scenario) and a 3 dBA permanent increase is attributable to the project (i.e., the cumulative condition including the project compared to the cumulative no project scenario).

The Transportation and Circulation section of the APP EIR estimated the daily number of vehicle trips generated by the proposed project would be 33,429. These additional vehicle trips would be distributed across, and result in higher noise levels along the street network. Noise projections were made using the Federal Highway Administration Noise Prediction Model for those road segments that would experience the greatest increase in traffic volume and that would pass through residential areas. The evaluation determined that the noise increases associated with the Alameda Point Project traffic along Main Street, Willie Stargell Avenue, and Atlantic Avenue would exceed the significance criteria without mitigations. To mitigate this impact, the APP EIR recommended implementation of the following mitigation measure:

Mitigation Measure 4.G-3: To reduce automobile trips and associated automobile noise impacts, implement Mitigation Measure 4.C-2a.

Mitigation Measure 4.C-2a was developed in the Transportation and Circulation Section of the APP EIR to mitigate transportation impacts, unrelated to noise. The mitigation measure requires that "*Prior to issuance of building permits for each development project at Alameda Point, the City of Alameda shall prepare, and shall require that the sponsor of the development project participate in implementation of a Transportation Demand Management (TDM) program for Alameda Point aimed at meeting the General Plan peak-hour trip reduction goals of 10 percent for residential development and 30 percent for commercial development*". However, due to the uncertainty pertaining to quantifying the effectiveness of implementing TDM strategies, the travel demand analysis used as a basis for calculating traffic noise did not assume additional trip reduction due to specific TDM strategies at that time. Therefore, as a practical matter, increases in noise caused by project traffic were determined to be significant and unavoidable.

The implementation of the proposed project could result in transportation-related noise impacts during the operational phase due to increased vehicle traffic from personal vehicles and buses transporting passengers to the ferry terminal and from the operation of the ferry, therefore this impact would apply. The proposed project would assist in the reduction of traffic congestion through expansion of transit options and by dispersing vehicular trips made to access transit, therefore the project is consistent with Mitigation Measure 4.G-3. However, since the proposed Seaplane Lagoon Ferry Terminal is neither a residential or commercial development, Mitigation Measure 4.G-3 would not apply.

Impact 4.G-4: Non-transportation-related operations facilitated by the proposed project could potentially result in a substantial permanent increase in ambient noise levels in the vicinity. (Less than Significant)

The APP EIR evaluated permanent noise impact from operational activities such as heating, ventilation, and air conditioning systems; loading docks (from trucking activities); and parks and sports complexes and determined that these sources of non-transportation noise could exceed the City's noise standards and would be significant if not mitigated. To mitigate potential noise impacts from non-transportation sources, implementation of the following mitigation measure was recommended:

***Mitigation Measure 4.G-4*:** During individual project phase design preparation, the City will require a project applicant to comply with the Noise Ordinance and General Plan standards. These measures implement noise control measures to ensure that all non-transportation source operations comply with City standards and will include, but not be limited to, the following:

- The proposed land uses will be designed so that on-site mechanical equipment (e.g., HVAC units, compressors, generators) and area-source operations (e.g., loading docks, parking lots, and recreational-use areas) are located as far as possible and/or shielded from nearby noise sensitive land uses to meet City noise standards.

- On-site landscape maintenance equipment will be equipped with properly operating exhaust mufflers and engine shrouds, in accordance with manufacturers' specifications.

- The following activities will be limited to the hours of 7:00 AM to 10:00 PM unless site-specific analysis confirms that noise impacts to sensitive receptors would be less-than-significant:
    - Truck deliveries;
    - Operations of motor powered landscape maintenance equipment; and
    - Outdoor use of amplified sound systems.

The APP EIR found that implementation of Mitigation Measure 4.G-4 would ensure that project-related non-transportation sources of noise would comply with the City's Noise Ordinance and General Plan standards and therefore this impact would be less than significant.

Implementation of the proposed project could result in noise impacts from the proposed parking lot and ferry terminal. While these sources are essentially transport-related, they are similar to loading dock operations in that they occur at a single permanent location. Therefore, while none of the other specific sources of permanent noise evaluated in the APP EIR are applicable to the proposed project, noise impacts from non-transportation sources and Mitigation Measure 4.G-4 would apply to the proposed project.

Impact 4.G-5: Development facilitated by the proposed project could potentially place noise-sensitive residential uses in a noise environment that would exceed the City's goal for exterior/interior noise exposure. (Less than Significant)

The APP EIR determined that new residential land uses proposed as part of the project would expose people to noise levels exceeding the City's noise standards, resulting in a potentially significant impact with respect to interior noise levels and recommended the following mitigation measure:

Mitigation Measure 4.G-5: The City will require project sponsors for residential development to submit a detailed noise study, prepared by a qualified noise consultant, to determine design measures necessary to achieve acceptable interior noise levels at the proposed new residences. The study will be submitted to the City for review and approval. Design measures such as the following could be required, depending on the specific findings of the noise study: double-paned glass windows facing noise sources; solid-core doors; increased sound insulation of exterior walls (such as through staggered-or double-studs, multiple layers of gypsum board, and incorporation of resilient channels); weather-tight seals for doors and windows; or mechanical ventilation such as an air conditioning system.

The proposed Seaplane Lagoon Ferry Terminal would not include the siting of new sensitive receptors; therefore, this impact and mitigation measure would not apply.

Cumulative Impact

Impact 4.G-6: Increases in traffic from development facilitated by the proposed project in combination with other development could potentially result in cumulatively considerable noise increases. (Significant and Unavoidable)

The APP EIR evaluated the cumulative impact from traffic on the street network associated with project development. The evaluation found the development of Alameda Point would result in a cumulatively considerable permanent increase in noise levels above the significance threshold of 5 dBA along sections of Mazin Street, Willie Stargell Avenue, and Atlantic Avenue. To mitigate the cumulative impact, the APP EIR recommended the following mitigation measure:

Mitigation Measure 4.G-6: Implement Mitigation Measures 4.G-3 and 4.G-5.

Mitigation Measures 4.G-3 requires implementation of the TDM Program (Mitigation Measure 4.C-2a) to reduce automobile trips and associated automobile noise impacts from residential

and commercial developments. Mitigation Measure 4.G-5 requires that residential buildings include design measures to achieve acceptable interior noise levels.

While the implementation of the proposed project would likely contribute to the cumulative traffic noise impact from transportation sources associated with commuters traveling to the ferry terminal, expanding ferry service, in addition to other public transit and pedestrian/biking alternatives, is a key component of the Alameda Point Transportation Demand Management Plan and therefore; is compliant with the goals of the TDM. As previously stated, due to the uncertainty pertaining to quantifying the effectiveness of implementing TDM strategies required under Mitigation Measure 4.G-3, this impact was found to be significant and unavoidable. However, since the proposed project does not include any residential or commercial development, Mitigation Measure 4.G-6 does not specifically apply to the proposed project.

ATTACHMENT B
PROJECT-SPECIFIC NOISE EVALUATION RESULTS

Federal Transit Administration
Noise Impact Assessment Spreadsheet
Copyright 2007 HMMH Inc.
version: 7/3/2007

Project:	Seaplane Lagoon Ferry Project

Receiver Parameters	
Receiver:	Receiver 1
Land Use Category:	3. Institutional
Existing Noise (Measured or Generic Value):	50 dBA

Noise Source Parameters	
Number of Noise Sources:	1

Noise Source Parameters		Source 1
	Source Type:	Stationary Source
	Specific Source:	Ferry Terminal (w/ fog horn)
Noisiest hr of Activity During Sensitive hrs	Number Ferry Landings/hr	1
Distance	Distance from Source to Receiver (ft)	170
	Number of Intervening Rows of Buildings	0
Adjustments	Noise Barrier?	No

Project Results Summary

Existing Leqh:	50 dBA
Total Project Leqh:	45 dBA
Total Noise Exposure:	51 dBA
Increase:	1 dB
Impact?:	None

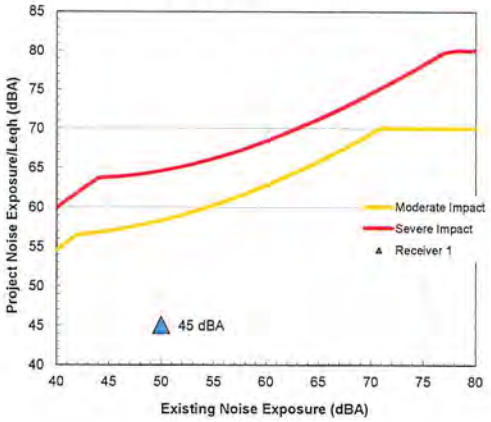
Distance to Impact Contours

Dist to Mod. Impact Contour (Source 1):	50 ft
Dist to Sev. Impact Contour (Source 1):	28 ft

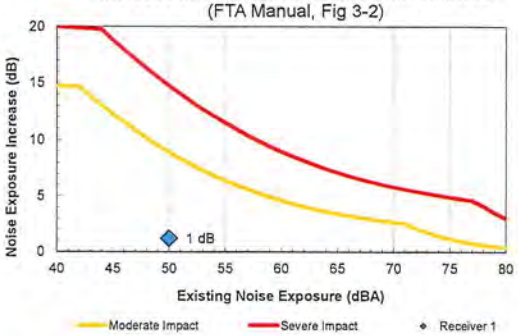
Source 1 Results

Leqh:	45.1 dBA

Noise Impact Criteria
(FTA Manual, Fig 3-1)



Increase in Cumulative Noise Levels Allowed
(FTA Manual, Fig 3-2)



Federal Transit Administration
Noise Impact Assessment Spreadsheet
Copyright 2007 HMMH Inc.
version: 7/3/2007

Project:	Seaplane Lagoon Ferry Project

Receiver Parameters	
Receiver:	Receiver 1
Land Use Category:	2. Residential
Existing Noise (Measured or Generic Value):	57 dBA

Noise Source Parameters	
Number of Noise Sources:	1

Noise Source Parameters		Source 1
	Source Type:	Stationary Source
	Specific Source:	Ferry Terminal (w/ fog horn)
Daytime hrs	Avg. Number Ferry Landings/hr	1
Nighttime hrs	Avg. Number Ferry Landings/hr	0
Distance	Distance from Source to Receiver (ft)	770
	Number of Intervening Rows of Buildings	0
Adjustments	Noise Barrier?	No

Project Results Summary

Existing Ldn:	57 dBA
Total Project Ldn:	27 dBA
Total Noise Exposure:	57 dBA
Increase:	0 dB
Impact?:	None

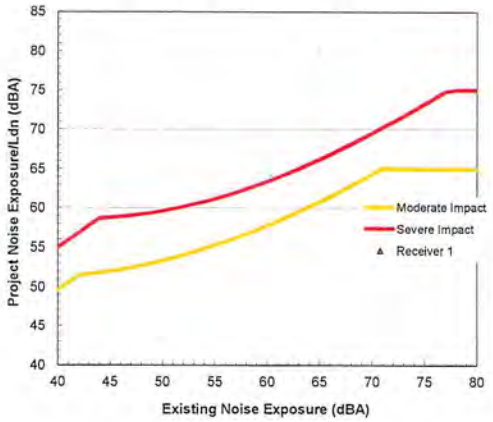
Distance to Impact Contours

Dist to Mod. Impact Contour (Source 1):	51 ft
Dist to Sev. Impact Contour (Source 1):	30 ft

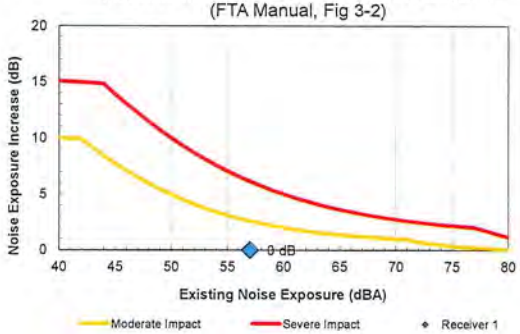
Source 1 Results

Leq(day):	28.7 dBA
Leq(night):	0.0 dBA
Ldn:	26.7 dBA

Noise Impact Criteria
(FTA Manual, Fig 3-1)



Increase in Cumulative Noise Levels Allowed
(FTA Manual, Fig 3-2)



Alameda Seaplane Lagoon Ferry Terminal
Estimation of Park and Ride Parking Lot Noise Levels

Hourly Leq at 50 ft: $Leq(h) = SEL_{ref} + C_N - 35.6$
Volume Adjustment: $Cn = 10 \times \log(Na/2000 + Nb/24)$
Where:
SEL_{ref} = 101 dBA at 50 feet Assumes 1,000 cars and 12 buses per hour
C_N = Volume Adjustment
NA = Number of automobiles per hour
NB = Number of buses per hour

Na	200	Automobiles
Nb	2	Buses
C_N	-7.4	
Leq	58	dBA at 50 feet

Source: FTA, 2006. Transit Noise and Vibration Impact Assessment

Attachment E

WETA Letter Regarding Operation of Ferry Service in the Seaplane Lagoon

San Francisco Bay Ferry
A SERVICE OF WETA

March 22, 2016

Jennifer Ott, Base Reuse Director
City of Alameda
2263 Santa Clara Avenue, Room 130
Alameda, CA 94501

Re: Operation of Ferry Service in the Seaplane Lagoon, Alameda Point, Alameda, California

Dear Ms. Ott:

Consistent with Water Emergency Transportation Authority's (WETA) June 4, 2015 System Expansion Policy, WETA has been working with the City of Alameda to support its plan for future ferry service to a proposed new ferry terminal in the Seaplane Lagoon at Alameda Point. If the Memorandum of Understanding for new service at the Seaplane Lagoon is executed by WETA and the City of Alameda, the new ferry terminal is approved by the City, and funds to support system construction and operation are secured, WETA will operate the new ferry service from the Seaplane Lagoon to San Francisco.

It is WETA's understanding that the new ferry terminal in the Seaplane Lagoon was analyzed at a program level in the City's the Final Environmental Impact Report for the Alameda Point Project (State Clearinghouse No. 2013012043), which was certified on February 4, 2014. The City approved the Alameda Point Project, which includes a new Seaplane Lagoon ferry terminal, later that year. As part of approving the Alameda Point Project, the City adopted mitigation measures to reduce or avoid the Project's significant effects on the environment. The City is now preparing an Addendum to the Final EIR that analyzes the project-specific environmental effects of the proposed Seaplane Lagoon ferry terminal, and has determined that no additional mitigation measures are required.

One of the previously adopted mitigation measures, Mitigation Measure 4.E-4a, requires the operator of ferry service in the Seaplane Lagoon to adhere to a 10 mph speed limit on the harbor side of the Breakwater Island in and around the Seaplane Lagoon. Because WETA will be operating the new ferry service in the Seaplane Lagoon, WETA agrees to abide by this mitigation measure. In addition, WETA agrees to respond to any request by the City for information regarding WETA's implementation of this measure made pursuant to the City's

mitigation monitoring and reporting obligations under the California Environmental Quality Act.

We look forward to continuing to work with the City on this important proposal to enhance ferry service and increase ferry ridership between the western portion of Alameda and San Francisco.

Sincerely,

Nina Rannells

Nina Rannells
Executive Director