

BROOKLYN BASIN MARINA EXPANSION PROJECT

Draft Supplemental Environmental Impact Report

Prepared for
City of Oakland

June 2021



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ACRONYMS AND ABBREVIATIONS

2009 EIR	Brooklyn Basin Project Environmental Impact Report ¹
AB	Assembly Bill
ABAG	Association of Bay Area Governments
AC Transit	Bus Services
ACWMA	Alameda County Waste Management Authority
APN	Assessor's Parcel Number
ARB	California Air Resources Board
ARDTP	Archaeological Research Design and Treatment Plan
ASI	Area of Secondary Importance
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
Bay Plan	San Francisco Bay Plan
BCDC	San Francisco Bay Conservation and Development Commission
BFE	Base Flood Elevation
BMP	Best Management Practice
BRT	East Bay Bus Rapid Transit
CalEEMod	California Emission Estimator Model
CAL FIRE	California Department of Forestry and Fire Protection
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Criteria Air Pollutant
CAPP	Community Air Protection Program
CARB	California Air Resources Board
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH ₄	methane
CO	carbon monoxide

¹ For the purpose of this Supplemental EIR (SEIR) analysis, the 2009 EIR is comprised of the following documents: *Oak to Ninth Avenue Project Draft EIR*, August 2005; *Oak to Ninth Avenue Project, Addendum #1 to the Certified Environmental Impact Report*, June 7, 2006; *Oak to Ninth Avenue Project Final EIR*, August 2006; *Revisions to the Analysis in the Oak to Ninth Project EIR (SCH. No. 2004062013) Prepared to Comply with the Alameda County Superior Court Order Case No. RG06-280345 and Case No. RG06-280471*, November 2008; *Oak to Ninth Avenue Project Responses to Comments on the Revisions*, December 2008; and City of Oakland Resolution No. 81769 C.M.S., approved January 20, 2009.

CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalents
COD	City of Oakland Datum
Corps	U.S. Army Corps of Engineers (see also USACE)
County OES	Alameda County Sheriff’s Office – Office of Emergency Services
CPUC	California Public Utilities Commission
DA	Development Agreement
dB	decibel
dba	A-weighted decibel
DMP	Drought Management Program
DPM	diesel particulate matter
DTSC	California Department of Toxic Substances Control
EBMUD	East Bay Municipal Utility District
ECAP	Oakland Equitable and Climate Action Plan
EIR	Environmental Impact Report
Estuary Plan	Estuary Policy Plan
FDP	Final Development Plans
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FTA	Federal Transit Administration
General Plan	Oakland General Plan
GHG	greenhouse gas
GHGRP	Greenhouse Gas Reduction Plan
GO	Commission General Orders
gpd	gallons per day
Guidelines	CEQA Air Quality Guidelines
HFC	hydrofluorocarbon
I/I	inflow and infiltration
I-880	Interstate 880
I-980	Interstate 980
IPCC	International Panel on Climate Change
ITE	Institute of Transportation Engineers
LCFS	Low Carbon Fuel Standards
LOS	level of service
LS	Less than Significant
LSM	Less than significant with mitigation
LUTE	Land Use and Transportation Element of the Oakland General Plan
mgd	million gallons per day
MMT	million metric tons
MTC	Metropolitan Transportation Commission
MWWTP	Main Wastewater Treatment Plant

N	No Impact
National Register	National Register of Historic Places
N ₂ O	nitrous oxide
NMFS	National Marine Fisheries Service
NO	Nitric oxide
NO ₂	Nitrogen Dioxide
NF ₃	Nitrogen trifluoride
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NOP	Notice of Preparation
O ₃	ozone
OCHS	Oakland Cultural Heritage Survey
OFD	Oakland Fire Department
OPC	Ocean Protection Council
OPD	Oakland Police Department
OPL	Oakland Public Library
OS	Open Space
OSCAR	Open Space, Conservation and Recreation Element of the Oakland General Plan
OUSD	Oakland Unified School District
PA	Priority Action
PDHP	Potential Designated Historic Property
PDA	Priority Development Area
PDP	Preliminary Development Plan
PEV	Plug-in electric vehicle
PFC	perfluorocarbon
PG&E	Pacific Gas & Electric
PM	particulate matter
PM ₁₀	particulate matter with a diameter of less than 10 micrometers
PM _{2.5}	particulate matter with a diameter of less than 2.5 micrometers
Port	Port of Oakland
ppb	parts per billion
PPD	pounds per day
Project Applicant	Zarison-OHP 1, LLC
Project Modifications	Brooklyn Basin Marina Expansion Project
Project site	Brooklyn Basin Project Site
PUD	Planned Use Development
PWD-4	Estuary Policy Plan Planned Waterfront Development 4
RHNA	Regional Housing Needs Allocation
ROG	reactive organic gases
RWQCB	San Francisco Bay Regional Water Quality Control Board

SB	Senate Bill
SCS	Sustainable Communities Strategy
SCA	Standard Condition of Approval
SCAMMRP	Standard Conditions of Approval/Mitigation Monitoring and Reporting Programs
Seaport Plan	San Francisco Bay Area Seaport Plan
SEIR	Supplemental Environmental Impact Report
SF ₆	sulfur hexafluoride
SO ₂	sulfur dioxide
SU	Significant and Unavoidable
TAC, TACs	Toxic Air Contaminant
TDM	transportation demand management
TIRG	Transportation Impact Review Guidelines
TSS	Total system storage
USACE	U.S. Army Corps of Engineers
USCG	United States Coast Guard
U.S. EPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UWMP	Urban Water Management Plan
VMT	vehicle miles traveled
VTR	vehicle trip reductions
VTS	Bay Vessel Traffic Service
WETA	Water Emergency Transportation Authority
WSA	Water Supply Assessment

CHAPTER I

Introduction

I.A Project Overview

The City of Oakland (City), as the Lead Agency, prepared this Supplemental Environmental Impact Report (SEIR) to address the physical and environmental effects of proposed revisions to the Brooklyn Basin Project (formerly Oak to Ninth Project). Together these revisions, described below and in Chapter III, *Project Description*, are referred to throughout as the Brooklyn Basin Marina Expansion Project or Project Modifications. This SEIR is prepared as a supplement to the Brooklyn Basin Project Environmental Impact Report (2009 EIR) that the City certified on January 20, 2009. Throughout this SEIR, the aggregate of previous CEQA approvals related to the original Brooklyn Basin Project are referred to as the 2009 EIR. The original Brooklyn Basin Project approved under the 2009 EIR is referred to as the Approved Project.¹

I.A.1 Project Site

The Project Modifications Project site (Project site) is the same as the Project site for the Approved Project with the addition of approximately 10 acres of water surface area to accommodate the expanded marina. The Project site after the implementation of the Project Modifications consists of the approximately 64.2-acre land area (including pile-supported pier area) and 17.95 water surface acres (see Figures III-1 through III-4, in Chapter III, *Project Description*).² The Project site is bounded by Fallon Street and Jack London Square to the west, Embarcadero and Interstate 880 (I-880) to the north, and the Oakland Estuary to the south and 10th Avenue approximately to the east.³ The Project site is currently zoned Planned Waterfront Zoning District 4 (PWD-4) with a General Plan land use designation of Estuary Policy Plan Planned Waterfront Development 4 (PWD-4).

¹ The Brooklyn Basin Project was previously called the Oak to Ninth Project. For the purpose of this Supplemental EIR (SEIR) analysis, the 2009 EIR is comprised of the following documents: *Oak to Ninth Avenue Project Draft EIR*, August 2005; *Oak to Ninth Avenue Project, 2006 Addendum #1 to the Certified Environmental Impact Report*, June 7, 2006; *Oak to Ninth Avenue Project Final EIR*, August 2006; *Revisions to the Analysis in the Oak to Ninth Avenue Project EIR (SCH. No. 2004062013) Prepared to Comply with the Alameda County Superior Court Order Case No. RG06-280345 and Case No. RG06-280471*, November 2008; *Oak to Ninth Avenue Project Responses to Comments on the Revisions*, December 2008; and City of Oakland Resolution No. 81769 C.M.S., approved January 20, 2009.

² The total Project site after implementation of the Project Modifications would consist of 64.2 acres of land area, including pile-supported pier area. The Project site also includes 17.95 acres of water surface area for marina facilities, which is 10 acres more than considered in the 2009 EIR.

³ The estuary connects with the east side of San Francisco Bay approximately 3.0 miles from the Project site.

I.A.2 Approved Project

The Approved Project consists of a Planned Unit Development (PUD) subdivided into five phases: Phases I-IV and Phase Ia.⁴ As described in detail in Chapter III, the Approved Project includes elements to redevelop the Project site including demolition of existing structures and site remediation; restoration of the Ninth Avenue Terminal building; and development of up to 3,100 residential dwelling units, 200,000 square feet of ground-floor retail/commercial space, approximately 31 acres of parkland, trails, and open space, and approximately 3,534 onsite parking spaces located within parking structures. Building heights generally were approved to range from six to eight stories (up to 86 feet), with high-rise tower elements of up to 24 stories (240 feet) on certain parcels. The Approved Project also includes the renovation of the existing Fifth Avenue Marina and Clinton Basin Marina. Since 2009, portions of the Approved Project have been implemented. These changes are described in Chapter III, *Project Description*.

I.A.3 Brooklyn Basin Marina Expansion Project (Project Modifications)

Zarsion-OHP 1, LLC. (Project Applicant) proposes the Project Modifications as revisions to the Approved Project previously approved under the 2009 EIR. The Project Modifications would include changes to the residential density, parking ratios, location of tower elements, and marina and would include General Plan and Zoning Code amendments to accommodate these proposed revisions. Specifically, the Project Modifications would increase Project site residential density by 600 units for a Project site total of up to 3,700 units. They include an update to the parking ratios to meet current zoning code requirements and reduce required parking spaces from 1.0 spaces per residential unit to 0.75 spaces per residential unit.

The Project Modifications would add two potential locations for one of five approved tower elements. This could potentially shift the approved building envelopes resulting in two towers on one parcel and more building mass in Phases III or IV. However, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would be developed within the Approved Project's overall building envelope and approved site plan and would not require changes to approved building heights or setbacks, landscaping, infrastructure, or planned circulation.

The Project Modifications would result in an approximate 10 percent increase in labor force and associated worker trips to and from the site, as well as an approximately 10 percent increase in delivery trips to develop the additional 600 residential units on Phases III and IV. The marina expansion component, described below, would result in additional construction-related delivery trips and extended construction timeframe due to limited in-water construction. The expanded marina is anticipated to be constructed over five seasons with approximately 20 construction materials delivery trips per season. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina (described below), the Project Modifications would occur within the same Project site as the Approved Project and this SEIR assumes that

⁴ For the purposes of this SEIR, the Approved Project described in this chapter constitutes the project approved under CEQA and may differ slightly from the Approved PUD.

there would be no substantial increase in duration of construction-related activity with approval of the Project Modifications.

Marina Expansion Component

The Project Modifications would include removal and replacement of the existing Clinton Basin Marina with a new marina extending from Clinton Basin to Brooklyn Basin along the Shoreline Park waterfront. These new docks would provide 218 recreational boat slips ranging from 40 to 80 feet in length wrapping along the shoreline from immediately east of 9th Avenue, continuing west and then northeast, and terminating at the most northern portion of Clinton Basin. This marina expansion would result in 158 additional slips beyond what was approved for the Clinton Basin Marina and would reduce dredging compared with the Approved Project. As required, the expanded marina would include boat-serving utilities including a pump-out facility for proper sewage disposal, power outlet centers, transformers, and lighting. To complement the new marina uses, the Project Modifications would include a landing dock at the Shoreline Park waterfront to accommodate a water taxi service. This service would be of a limited-capacity, available to the residents of the Project site and the public, although significant public use is not anticipated given the proximity of the public Ferry Terminal at Jack London Square.

No changes are proposed to the previously approved upland development associated with the marina uses, except for main walkway improvements near the Ninth Avenue Terminal Building.

I.B Environmental Review

I.B.1 SEIR

The City of Oakland is the Lead Agency for this SEIR (pursuant CEQA Guidelines Section 15051) and has prepared this SEIR subject to CEQA (Public Resources Code Section 21000, et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000, et seq.) (together “CEQA”).

In accordance with Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 and 15163, the City examined whether the Project Modifications would be “substantial changes” that trigger the need for a major modification to the previously certified 2009 EIR due to a new significant impact or a substantial increase in the severity of previously identified significant impacts. As stated above, the project for CEQA purposes is the Brooklyn Basin Marina Expansion Project or Project Modifications. The Approved Project, together with the Project Modifications, make up the Modified Project. For the purposes of CEQA, the Project site is modified as follows: the onshore Project site is the same Project site considered in the 2009 EIR; and the water surface area is expanded by approximately 10 acres to accommodate the proposed expanded marina.

Focus of SEIR Analysis

Pursuant to Public Resources Code Section 21166 and CEQA Guidelines Section 15163, the City has prepared a supplement to the 2009 EIR because conditions addressed in Section 15162 exist within the expanded Project Area. Within the Existing Project Area, none of the conditions addressed in Section 15162 exist and only minor additions/changes are necessary to make the 2009 EIR adequately apply to the Project Modifications. The minor additions/changes necessary are related to the components of the Project Modifications described above and in Chapter III, *Project Description*.

The 2009 EIR analyzed the environmental effects of the Approved Project and identified feasible mitigation measures for, and alternatives to, the Approved Project. The Project Modifications do not involve any new impacts or trigger the criteria of “project changes,” “changed circumstances” or “new information” in Section 15162 *with respect to the Existing Project Area*. However, project changes in the expanded Project Area, could, without new mitigation, result in new significant impacts.

In accordance with CEQA Guidelines Section 15163, the SEIR contains only the information necessary to make the 2009 EIR adequate for the Project Modifications.

I.B.2 SEIR Scoping

On September 21, 2018, the City issued a Notice of Preparation (NOP) to inform agencies and interested parties of its intent to prepare and distribute a “Supplemental Environmental Impact Report for the Brooklyn Basin (formerly Oak to Ninth Mixed Use Development) Project.” The NOP was distributed to governmental agencies, organizations, and persons interested in the Project Modifications. The City sent the NOP to agencies with statutory responsibilities in connection with the Project Modifications and requested their input on the scope and content of the environmental information that should be addressed in this SEIR. The City of Oakland Planning Commission held Scoping Meetings on October 17, 2018, and November 7, 2018, to accept comments regarding the scope of the SEIR in response to the NOP. The NOP review period ended on November 13, 2018. The NOP and a summary of CEQA-related comments received in response to the NOP are provided in Appendix A to this SEIR. The analysis presented in this SEIR addresses all comments received that pertain to the potential environmental effects of the project under CEQA.

I.B.3 Public Review

This SEIR is available for public review and comment for the period identified on the Notice of Release/Availability of Draft Supplement to an Environmental Impact Report accompanying this document (45 calendar days, Friday, June 11, 2021 through Monday, July, 26, 2021). During the public review and comment period, written comments on the SEIR may be submitted to the City at the address indicated on the notice. Oral comments may be stated at the public hearing on the SEIR, which will be held as indicated on the above-referenced notice.

Following the public review and comment period for the SEIR, the City will prepare responses that address all written and oral comments on the SEIR’s environmental analyses and received within the specified review period. The responses and any other revisions to the SEIR will be prepared as a Responses to Comments document. The SEIR and its Appendices, together with the Responses to Comments document, will constitute a Final SEIR (commonly referred to collectively as “SEIR”) for the Project Modifications.

I.B.4 Use of this SEIR

Pursuant to CEQA, this SEIR is a public information document prepared for use by governmental agencies and the public to identify and evaluate potential environmental consequences of the Project Modifications, to identify and evaluate mitigation measures that would substantially lessen or eliminate significant adverse environmental impacts, and to examine a reasonable range of feasible alternatives to the Project Modifications. The information contained in this SEIR is subject to review and consideration by the City of Oakland (see I.D, *CEQA Review and Approval*, below) and any other responsible agency prior to the City’s decision to approve, reject or modify the Project Modifications.

I.C CEQA Background

The City published a Draft EIR for the Brooklyn Basin project on August 31, 2005. The 2005 Brooklyn Basin Draft EIR (previously referred to as the Oak to Ninth Project Draft EIR) analyzed the redevelopment of the approximately 64.2-acre Project site into a mixed-used neighborhood containing approximately 3,100 residential dwelling units on 13 development parcels; approximately 200,000 square feet of active ground-floor retail uses; approximately 28.4 acres of new and improved parks and open space; and 170 boat slips (75 new) through renovation of Clinton Basin Marina and Fifth Avenue Marina.⁵⁻⁶

A Final EIR was published on February 1, 2006 and on March 15, 2006, the Oakland Planning Commission certified the EIR (which includes the Draft EIR and Final EIR or Response to Comments document) and took actions approving, or recommending approval of, various resolutions and ordinances related to the approval of the project. Subsequent to certification of the EIR, the Project Applicant proposed two notable revisions to the Approved Project.

First, the Project Applicant removed proposed development on Parcel N, redistributed the development to the rest of the Project site, and added 2.41 acres of new open space to Estuary Park. These revisions were analyzed in a 2006 Addendum to the EIR and determined not to result

⁵ The Approved Project parks and open space included the following new parks: Gateway Park at 3.1 acres, Channel Park at 5.52 acres, Shoreline Park at 9.74 acres, South Park at 2.3 acres, for a total of 20.66 acres of new parks and open space. Parcel N includes the existing 7.7-acre Estuary Park consisting of the Jack London Aquatic Center and 3.5 acres of open space. This existing park would benefit from improvements as a result of the Approved Project but is considered an existing resource.

⁶ The 2009 EIR analyzed 170 slips on the Project site, which included 35 existing and 17 proposed new slips for a total of 52 slips in Clinton Basin Marina and 60 existing and 58 proposed new slips for a total of 118 slips in the Fifth Avenue Marina. However, the Preliminary Development Plan and Development Agreement include 60 slips in the Clinton Basin Marina. Therefore, the Project Modifications add 158 new slips for a total of 218 slips in the Clinton Basin Marina.

in any new significant environmental impacts.⁷ With this 2006 Addendum, the Approved Project is considered to include approximately 31 acres of parks and open space (existing + new) on the Project site.

Second, the Project Applicant increased the area of the Ninth Avenue Terminal area to be retained from 15,000 to 20,000 square feet. This change was considered in the certified EIR alternatives and found not to result in any new significant environmental impacts and thus no additional analysis was required beyond a technical memorandum considering the reuse of the facility.

On June 20, 2006 and July 18, 2006, the City Council and Redevelopment Agency Board took the following actions with respect to the approval of the project:

1. Approved Resolution 79981 denying the appeal of the Planning Commission actions and certifying the EIR.
2. Approved Resolution 79982 amending the General Plan Estuary Policy Plan.
3. Approved Resolution 2006-0045 regarding amending the Central City East Redevelopment Plan.
4. Adopted Ordinance 12756 amending the Central City East Redevelopment Plan.
5. Approved Resolution 2006-0046 regarding amending the Central District Urban Renewal Plan.
6. Adopted Ordinance 12757 amending the Central District Renewal Plan.
7. Adopted Ordinance 12758, the Planned Waterfront Zoning District-4 (PWD-4).
8. Adopted Ordinance 12759 rezoning property in the Oak to Ninth Project site.
9. Approved Resolution 79983 for the vesting tentative map no. 7621.
10. Approved Resolution 79984 for the preliminary development plan and design guidelines.
11. Approved Resolution 2006-0047 authorizing a development agreement.
12. Adopted Ordinance 12760 approving a development agreement.
13. Approved Resolution 2006-0060 authorizing a cooperation agreement.
14. Adopted Exhibits A through D to the approval documents, which included the CEQA findings and statement of overriding considerations, mitigation monitoring and reporting program, conditions of approval, and general findings.

Following these approvals, on February 27, 2008 the Alameda County Superior Court Judgment issued a Peremptory Writ of Mandate in Case No. RG06-280345, Oakland Heritage Alliance v. City of Oakland, et al. The Court Order found the EIR deficient with respect to portions of the environmental review. The Judgment and Peremptory Writ of Mandate in Case No. RG06-280345 vacated and set aside Resolution 79981 certifying the EIR for the project and adopting the CEQA findings and statement of overriding considerations and the mitigation monitoring and

⁷ The 2006 Addendum was published June 7, 2006.

reporting program incorporated by reference in the Resolution. All of the other project approvals listed above were suspended pending further order of the Court.

In September 2008, the City published the *Revisions to the Analysis in the Oak to Ninth Project EIR (SCH. NO.2004062013) Prepared to Comply with the Alameda County Superior Court Order in Case No. RG06-280345 and Case No. RG06-280471*, and in December 2008, the City published the *Responses to Comments on the Revisions State Clearinghouse No. 2004062013*. Then, on January 20, 2009, the City Council approved the revisions to the EIR and certified the EIR as revised pursuant to the Court Order and the Judgment and Writ, under Resolution Number 81769 C.M.S. The City returned to the Court for a determination that the City has complied with the Court Order, and thereafter, the suspension of the project approvals were vacated and project approvals were reinstated. There have been no additional CEQA approvals since the January 20, 2009 approval by the Oakland City Council. As noted above, throughout this SEIR, the aggregate of previous CEQA approvals described in this section are referred to as the 2009 EIR.

I.D Review and Project Approval

Prior to approving the Project Modifications, the City of Oakland must ultimately certify that it has reviewed and considered the information in the SEIR and that the SEIR has been completed in conformity with the requirements of CEQA. This SEIR must be certified and considered by the Lead Agency before any final Agency decision can be made regarding the Project Modifications. This SEIR identifies significant effects that would result from the activities facilitated by the Project Modifications. Therefore, pursuant to CEQA Guidelines Section 15091, if the SEIR identifies one or more significant environmental effects of the Project Modifications, the following findings would be required if the Lead Agency decides to approve the Project Modifications:

- (1) Changes or alterations have been required in, or incorporated into, the project, which avoid or substantially lessen the significant environmental effect as identified in the Final SEIR.
- (2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such agency.
- (3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final SEIR.

I.E Requirements for Adoption of the Project Modifications

Adoption of the Project Modifications would require the following key elements pursuant to CEQA:

- **CEQA Compliance:** A CEQA document addressing the environmental impacts of the Project Modifications, (i.e., this SEIR) would need to be prepared and the SEIR circulated for

public comment. A Responses to Comments and Final SEIR document would be prepared after the SEIR public comment period. This SEIR will assist the City in satisfying the “CEQA Compliance” requirement.

- **Planning Commission:** A public hearing would be held by the City Planning Commission to review the SEIR and the merits of the Project Modifications, and make a recommendation to the City Council regarding certification of the SEIR, required findings, and the Standard Conditions of Approval / Mitigation Monitoring and Reporting Program (SCAMMRP), and adoption of the Project Modifications.
- **First City Council Hearing:** This public hearing would be held to act on the adoption of the resolutions certifying the SEIR, adopting the SCAMMRP, and approving the portions of the Project Modifications passed by resolution. If the City Council approves the Project Modifications, it also would have the first reading of the ordinances involved in the Project Modifications at this hearing.
- **Second City Council Hearing:** The City Council would hold a public hearing to have a second reading on the ordinances involved in the Project Modifications.

I.F Organization of the Draft SEIR

Following this Chapter I, *Introduction*, this SEIR is organized as follows:

Chapter II, *Summary*, contains a brief summary of the Project Modifications, and allows the reader to easily reference the analysis presented in the SEIR. Table II-1, Summary of Impacts, Standard Conditions of Approval (SCAs), Mitigation Measures, and Residual Impacts, is provided at the end of Chapter II as a reader-friendly reference to each of the environmental effects, proposed mitigation measures and residual environmental impacts after mitigation is implemented, presented by environmental topic. Chapter II also summarizes the Alternatives analysis, areas of controversy and NOP comments received.

Chapter III, *Project Description*, generally describes the Project site and describes in detail the Project Modifications surroundings, applicable background and regulatory context and the Project Modifications. Background regarding the goals and objectives of the Approved Project are discussed to provide context, and the goals and objectives of the Project Modifications are also described. Chapter III also identifies other agencies that may rely on this SEIR and may require additional approvals related to the Project Modifications.

Chapter IV, *Environmental Setting, Impacts, Standard Conditions of Approval, and Mitigation Measures*, includes an introduction that explains nomenclature, organization, environmental baseline and cumulative approach applied throughout the analysis subsections of Chapter IV (e.g., Section IV.G, *Noise*). Within each analysis subsection, Chapter IV incorporates by reference the environmental and regulatory setting (*Setting*) (existing physical conditions and regulatory framework) and the environmental impacts (*Impacts and Mitigation Measures*) for the Approved Project as analyzed in the 2009 EIR, as well as any relevant changes to the environmental or regulatory setting and environmental impacts resulting from the Project Modifications. The analysis identifies environmental impacts (project and cumulative conditions before and after implementation of mitigation measures), applicable SCAs, and mitigation

measures that after implementation would reduce or eliminate significant impacts of the Project Modifications. The applicable CEQA thresholds/criteria used to assess CEQA significance for each environmental topic are identified, and any changes since preparation of the 2009 EIR that affect the analysis and environmental conclusions in this SEIR are discussed. Chapter IV also discusses for each topic how the analysis relates to the conditions described in Public Resources Code Section 21166 and CEQA Guidelines Section 15162 and 15163 with respect to any changed circumstances, new information or environmental conditions relative to findings in the 2009 EIR.

Chapter V, *Alternatives*, focuses on reasonable range of alternatives to the activities facilitated by the Project Modifications, and identifies an environmentally superior alternative for the Project Modifications.

Chapter VI, *Impact Overview and Growth Inducement*, summarizes the potentially significant and unavoidable impacts and the cumulative impacts that could result with the activities facilitated by the Project Modification, as they are identified throughout Chapter IV. Chapter VI also describes the potential for inducing growth.

Chapter VII, *Report Preparation*, identifies the authors of the SEIR, including City staff and the SEIR consultant team. The key consultants who provided technical resources for the SEIR are also identified in this chapter.

Appendices to the SEIR are provided at the end of the document and include the NOP, summarized CEQA-related comments to the NOP, as well as certain supporting background documents used for the impact analyses for specific topics. All reference documents and persons contacted to prepare the SEIR analyses are listed at the end of each analysis section in Chapter IV, *Environmental Setting, Impacts, Standard Conditions of Approval and Mitigation Measures*. The SEIR is available for review by the public at the City of Oakland Community and Economic Development Agency – Planning Department-Strategic Planning Division, under reference Case Number PUD06010-R02-ER01, located at 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, California 94612.

A *List of Acronyms and Abbreviations* used in this SEIR is provided before Chapter I.

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CHAPTER II

Summary

II.A Project Summary

The City of Oakland (City) has prepared this Supplemental Environmental Impact Report (SEIR) to analyze the physical and environmental impacts associated with the Brooklyn Basin Marina Expansion Project (Project Modifications), per the requirements of the California Environmental Quality Act (CEQA) statutes (Public Resources Code [PRC] Section 21000 et seq.) and the CEQA Guidelines (California Code of Regulations 15000 et seq.). This SEIR is prepared as a supplement to the 2009 Brooklyn Basin EIR (2009 EIR) for the previously approved 64.2-acre project (Approved Project).^{1,2}

The Approved Project consists of a Preliminary Development Plan (PDP) subdivided into four phases and one sub-phase.³ The Approved Project includes elements to redevelop the Project site including demolition of existing structures and site remediation; restoration of the Ninth Avenue Terminal building; and development of up to 3,100 residential dwelling units, 200,000 square feet of ground-floor retail/commercial space, approximately 31 acres of parkland, trails, and open space approximately 3,534 onsite parking spaces located within parking structures. Building heights generally were approved to range from six to eight stories (up to 86 feet), with high-rise tower elements of up to 24 stories (240 feet) on certain parcels. In addition, the Approved Project includes shoreline improvements as well as renovation of the existing Fifth Avenue Marina and Clinton Basin Marina which would provide for approximately 167 boat slips total.⁴

As described in Chapter III, *Project Description*, since preparation of the 2009 EIR, there has been some substantial and on-going initial construction of the Approved Project. At the time of the NOP (September 2018), Phase I on-and off-site improvements were constructed. In addition, Phase I park and open space improvements and development on Parcel B were under

¹ The total Approved Project site after implementation would consist of 64.2 acres of land area, including pile-supported pier area and excluding approximately 7.95 acres of water surface for marina facilities.

² For the purpose of this Supplemental EIR (SEIR) analysis, the 2009 EIR is comprised of the following documents: *Oak to Ninth Avenue Project Draft EIR*, August 2005; *Oak to Ninth Avenue Project, 2006 Addendum #1 to the Certified Environmental Impact Report*, June 7, 2006; *Oak to Ninth Avenue Project Final EIR*, August 2006; *Revisions to the Analysis in the Oak to Ninth Project EIR (SCH. No. 2004062013) Prepared to Comply with the Alameda County Superior Court Order Case No. RG06-280345 and Case No. RG06-280471*, November 2008; *Oak to Ninth Avenue Project Responses to Comments on the Revisions*, December 2008; and City of Oakland Resolution No. 81769 C.M.S., approved January 20, 2009.

³ For the purposes of this SEIR, the Approved Project described in this chapter constitutes the project approved under the Approved PDP, which may differ slightly from the project in the 2009 EIR.

⁴ The Approved PDP permits 25 new slips in Clinton Basin, which included 35 existing slips, and the renovation of the approximately 118 slips in the Fifth Avenue Marina, which would result in approximately 107 slips there.

construction. Final Development Permits (FDPs) for Affordable Housing on Parcels A and F, FDPs for Parcels C and G, and an FDP for Phase II through IV park and open space improvements had been approved. Since publication of the NOP, additional FDPs for Phase I and II parcels have been submitted and development proposals for all sites within those phases are either under review, approved, under construction, or operational (see Chapter III, *Project Description*).

The Project Modifications would include a residential unit increase of 600 units (for a Project site total of up to 3,700 units). The proposed increase in residential density would be accommodated within the Approved Project's building height, massing, setbacks, and footprints. The project site's water surface area is proposed to be expanded by approximately 10 acres to accommodate the proposed expanded marina and, other than the possible relocation of a tower element, the onshore Project site is the same Project site considered in the 2009 EIR. The Project Modifications would relocate one of the approved tower designations from either Parcel H or J to either Parcel L or M, potentially resulting in two towers on Parcel M, and an increase in building mass in Phases III or IV. This change would not increase the total number of towers on the overall Project site, nor would it modify the approved design parameters associated with the towers on the Project site.

The Project Modifications would remove and replace the existing Clinton Basin Marina with a new marina extending from the southern portion of the Clinton Basin to the Shoreline Park waterfront in Brooklyn Basin. The Approved Project allows 25 new boat slips in Clinton Basin for a total of 60 slips there. The Project Modifications would permit 218 slips in the expanded marina, which includes the southern portion of Clinton Basin. The Project Modifications would not alter the approved renovation of the Fifth Avenue Marina. Accordingly, the expanded marina would add 158 slips to the Approved Project's marina plan for a total of 325 slips. Therefore, an addition of 158 slips is assumed in the analysis of the Project Modifications throughout this SEIR. To complement the new marina uses, the Project Modifications would include a landing dock at the north end of Shoreline Park to accommodate a landing dock for a water taxi service that is already operating on the bay. This service likely would begin as be of a limited-capacity service, available to the residents of the Project site and the public.

No changes to the Approved Project's circulation and parking plan are proposed. However, the Project Modifications would update the residential parking minimum in the zoning to current code requirement in some districts of 0.75 spaces per residential unit. This would apply to all future development including the Project Modifications.

Finally, to accommodate the increased project area and density, the Project Modifications include an amendment to the Estuary Policy Plan, (which is part of the General Plan) and zoning code to increase the permitted average residential density in the PWD-4 land use classification and PWD-4 zoning district from 50 to 58 dwelling units per gross acre. With these amendments, the Project Modifications would increase the total number of units allowed on the Project site from 3,100 to 3,700. These amendments require approval of a revised Preliminary Development Plan, an amendment to the approved Development Agreement between the Project Applicant and the City, and a new Tentative Tract Map for condominium purposes. **Table II-1** provides a breakdown of the Project Modifications in the context of the Approved Project.

**TABLE II-1
PROJECT LAND USE COMPARISON**

Land Use	Approved Project	Project Modifications	Total
Residential			
Units	3,100 units	600 units	3,700 units
Towers: Building Envelope / Phase	5 towers of 240 feet/ Phases I and II	5 towers of 240 feet/designated tower site relocated from Phase II to Phase III or IV	5 towers of 240 feet/ Phases I and III or IV
Parking	3,100 spaces ^a	450 spaces ^b	3,160 spaces ^c
Retail^d			
Area	200,000 sf	No change	200,000 sf
Parking	400 spaces	No change	400 spaces
Marina			
In-Water Acreage	7.95 acres	10 acres	17.95 acres
Slips/Vessel Size	167	158	325 slips
Water Taxi Landing Dock	0	1	1
Parking	34 spaces	Add 31 spaces	65 spaces
Open Space			
Acreage	31 acres	No change	31 acres

NOTES:

- a 2009 EIR parking rates were calculated at: 1 space per residential unit; 1 space for every 500 feet of retail; and 1 space per 5 marina slips.
- b Project Modifications would update the residential parking ratio to 0.75, consistent with current City requirements in other zoning districts. At this ratio, the 600 units from the Project Modifications would yield 450 residential parking spaces.
- c Project Modifications would also apply the updated residential parking ratio of 0.75 to future development or 1,207 of units (600 units from the Project Modifications and 607 remaining Approved Project units) (see Table III-2 above). Thus, the Modified Project would include 3,160 spaces (2,255 spaces from existing FDPs) + (600*0.75 = 450) + (607*0.75 = 455) = 3,160 spaces.
- d Retail uses include: retail, restaurant, service, and small office uses to support the new residential neighborhood and serve visitors to the site.
- e As described below, this SEIR analyzes the additional 158 slips proposed for the Clinton Marina.
- f Note, the marina parking spaces are provided to accommodate demand associated with the marina slips. Due to the proximity to the Jack London Square Ferry Terminal, it is assumed the water taxi would be used by project residents and employees only and no parking would be dedicated for water taxi riders.

SOURCE: Approved Project details from City of Oakland, 2005, and Project Modification details from Zarsion-OHP 1, LLC, 2019.

As noted above, no changes to the Approved Project's circulation and parking plan are proposed. The Project Modifications would be accommodated within the Approved Project's building height, massing, setbacks, and footprints and no changes to the Approved Project's onshore site plan are proposed. The Project Modifications would not increase the total number of towers on the Project site, nor would they modify the approved design parameters associated with the towers on the Project site. The Project Modifications would not result in substantial changes to onshore construction activity as analyzed in the 2009 EIR, although the number of construction workers and deliveries would increase. However, the marina expansion component of the Project Modifications would require additional in-water construction.

II.B Environmental Impacts, Standard Conditions of Approval and Mitigation Measures

All impacts and mitigation measures identified in this SEIR are summarized in **Table II-2**, Summary of Impacts, Standard Conditions of Approval, Mitigation Measures, and Residential Impacts, at the end of this chapter. Table II-2 includes all impact statements, standard conditions of approval (SCAs), recommended mitigation measures and level of significance of the impact after recommended mitigation measures are implemented. The SEIR determined that the Project Modifications would not result in any significant and unavoidable impacts to the environment.

II.C Summary of Alternatives

Alternatives to the Project Modifications generally represent various means of reducing or avoiding long-term impacts. Consistent with the selection criteria identified above, the City has identified the following reasonable range of alternatives to be addressed in this SEIR. The detailed description of each alternative and the alternative analyses compared to the Project Modifications are presented in Chapter IV, *Alternatives*:

- **Alternative 1, No Project:** The No Project Alternative includes the existing conditions at the time the notice of preparation is published as well as the events or actions that would reasonably be expected to occur in the foreseeable future including the Approved Project. Development on the Project site would proceed under existing approvals and would be subject to the 2009 EIR mitigation measures.
- **Alternative 2, No Marina Expansion:** Under this alternative, the marina would be developed according to existing approvals resulting in no more than 167 slips on the Project site. The Project site would not expand by approximately 10 acres of water surface, and would not accommodate the expanded marina or a water taxi service. The Approved Project would be developed along with other components of the Project Modifications including the proposed additional residential units, updated parking ratios for Phases III and IV, and proposed tower relocation from Phase II to either Phase III or IV.
- **Alternative 3, No Tower Relocation:** Under this alternative, the proposed new tower locations on Parcels M and L would not be added to project approvals, there would be no potential for two towers on Parcel M, and there would be no increase in building mass in Phase III or IV. The Approved Project would be developed along with all other components of the Project Modifications

The set of selected alternatives above are considered to reflect a “reasonable range” of feasible alternatives in that they include reduced scenarios that lessen and/or avoid significant and less-than-significant effects of the Project Modifications. The Project Modifications are specific to the Approved Project site; therefore, this analysis does not consider an off-site alternative.

II.C.1 Environmentally Superior Alternative

The evaluation in Chapter V, *Alternatives*, first considers the extent to which each of the CEQA alternatives reduces or avoids the significant impacts identified for the Project Modifications. The

extent to which an alternative reduces, avoids, or increases the severity of less-than-significant impacts identified for the Project Modifications is also considered. The No Marina Expansion Alternative 2 is considered the environmentally superior alternative as it would avoid and/or substantially reduce new Biological Resources impacts of the Project Modifications to the greatest extent compared to the each of the other alternatives, and still meet most of the basic objectives of the Approved Project along with one of the three additional objectives of the Project Modifications.

II.D Areas of Controversy Raised in Scoping Comment

Section 15123(b)(2) of the CEQA *Guidelines* requires that an EIR summary identify areas of controversy known to the Lead Agency (City of Oakland), including those issues and concerns identified by the City, and by other agencies, organizations, and individuals in response to the City's Notice of Preparation (NOP), including comments stated during the City's scoping meetings held by the Oakland Planning Commission. Each of these CEQA topics is addressed in this SEIR, while comments that were raised regarding non-CEQA topics are noted but not addressed directly.

Areas of potential controversy or interest addressed in the public comments and relevant to the CEQA analysis of the Project Modifications include: land use (consistency with the Estuary Policy Plan); hydrology (sea level rise); biological resources (wave frequency and adequate sediment supply; water turbulence effects on wildlife, wetlands, and other biological resources; effects on bird species, especially related to new sources of light; and cumulative impacts); aesthetics (shading on solar arrays and public open spaces; public views of the Estuary, the Bay and its shoreline including BCDC permit conditions); and utilities (water supply assessment).

II.E Issues to Be Resolved

Section 15123(b)(3) of the CEQA *Guidelines* requires that an EIR present the issues to be resolved including the choice among alternatives and whether or how to mitigate identified significant effects. The major issues to be resolved for the Project Modifications include decisions by the City of Oakland, as the Lead Agency, as to whether:

- This EIR adequately describes the environmental impacts of the Project Modifications;
- Recommended mitigation measures should be adopted or modified;
- Additional mitigation measures should be applied to the Project Modifications;
- Feasible alternatives exist that would achieve the objectives of the Project Modifications and reduce significant environmental impacts;
- Significant and unavoidable impacts would occur if the Project Modifications were implemented; and
- The Project Modifications should or should not be approved.

**TABLE II-2
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS**

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.A Land Use		
<p>Impact LU-1: The Project Modifications would develop a higher density of residential uses in buildings immediately adjacent to and surrounding Fifth Avenue Point but would not result in the physical division of an existing community. (Criterion A) <i>(Less than Significant with Mitigation)</i></p>	<p>2009 EIR Mitigation Measure A.1: The Project Applicant shall incorporate into the Project site plan design elements that 1) address the relationship (setback, height and upper-story setbacks, etc.) of new buildings located adjacent to Fifth Avenue Point to minimize the physical division of the outparcels from the existing Oak-to-Ninth District; 2) provide safe, direct, and well-designed pedestrian and bicycle access between the outparcels and the new public open spaces, trails, and marina uses on the Project site; 3) provide appropriate landscaping and/or other feature(s) to provide appropriate buffering between the outparcels and the Project site, where necessary and feasible. The proposed Planned Waterfront Zoning District (PWD-1) standards discussed in Impact A.2 shall incorporate, as appropriate, specific design standards to address the aforementioned elements in areas abutting Fifth Avenue Point.</p>	<p>Less than Significant</p>
<p>Impact LU-2: The Project Modifications would not fundamentally conflict with adjacent or nearby uses. (Criterion B) <i>(Less than Significant with Mitigation)</i></p>	<p>2009 EIR Mitigation Measure A.3a: The Project Applicant shall implement all mitigation measures identified throughout this SEIR to address the significant physical impacts associated with the environmental changes that would occur as a result of the project, reducing each impact to less than significant, where feasible.</p> <p>2009 EIR Mitigation Measure A.3b: The Project Applicant shall implement the specific regulations and standards of the proposed Planned Waterfront Zoning District (consistent with Mitigation Measures A.1 and A.2b), if approved. To specifically address the physical impacts resulting from the change in land use and environment in proximity to Fifth Avenue Point and adjacent residential development, the project shall adhere to the regulations and standards for allowable uses, open space, streets, setbacks, building heights and upper-story setbacks, maximum densities, maximum commercial space, pedestrian and bicycle access, and landscaping and buffering.</p>	<p>Less than Significant</p>
<p>Impact LU-3: The Project Modifications would not be consistent with the existing land use classification and zoning district for the Project site. (Criterion C) <i>(Less than Significant)</i></p>	<p>None required</p>	<p>Less than significant</p>
<p>Impact LU-4: The Project Modifications would not fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan. (Criterion D) <i>(Less than Significant with Mitigation)</i></p>	<p>2009 Mitigation Measure I.2b (see below)</p>	<p>Less than Significant</p>
<p>Impact LU-5: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project site, would not result in a significant adverse cumulative land use, plans, and policy impact. <i>(Less than Significant with Mitigation)</i></p>	<p>2009 Mitigation Measure A.1 (see above) 2009 Mitigation Measure A.3a (see above) 2009 Mitigation Measure A.3b (see above)</p>	<p>Less than Significant</p>
IV.B Transportation		
<p>Impact Trans-1: The Project Modifications would not conflict with a plan, ordinance, or policy addressing the safety or performance of the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths. (Criterion A) <i>(Less than Significant)</i></p>	<p>SCA-TRANS-3 (SCA 78): Transportation and Parking Demand Management. <i>Prior to issuance of a final inspection of the building permit.</i></p> <p>a. Transportation and Parking Demand Management (TDM) Plan: The project applicant shall submit a TDM plan for review and approval by the City.</p>	<p>Less than Significant</p>

**TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS**

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation								
IV.B Transportation (cont.)										
Impact Trans-1 (cont.)	<p>i. The goals of the TDM Plan shall be the following:</p> <ul style="list-style-type: none"> ▪ Reduce vehicle traffic and parking demand generated by the project to the maximum extent practicable. ▪ Achieve the following project vehicle trip reductions (VTR): ▪ Projects generating 50 to 99 net new a.m. or p.m. peak hour vehicle trips: 10% VTR. ▪ Projects generating 100 or more net new a.m. or p.m. peak hour vehicle trips: 20% VTR. ▪ Increase pedestrian, bicycle, transit, and carpool/vanpool modes of travel. All four modes of travel shall be considered, as appropriate. ▪ Enhance the City's transportation system, consistent with City policies and programs. <p>ii. TDM Plan should include the following:</p> <ul style="list-style-type: none"> ▪ Baseline existing conditions of parking and curbside regulations within the surrounding neighborhood that could affect the effectiveness of TDM strategies, including inventory of parking space and occupancy if applicable. ▪ Proposed TDM strategies to achieve VTR goals (see below). <p>iii. For employers with 100 or more employees at the subject site, the TDM Plan shall also comply with the requirements of the Oakland Municipal Code Chapter 10.68 Employer-Based Trip Reduction Program.</p> <p>iv. The following TDM strategies must be incorporated into a TDM Plan based on a project location or other characteristics. When required, these mandatory strategies should be identified as a credit toward a project's VTR.</p> <table border="1"> <thead> <tr> <th>Improvement</th> <th>Required by code or when...</th> </tr> </thead> <tbody> <tr> <td>Bus boarding bulbs or islands</td> <td> <ul style="list-style-type: none"> • A bus boarding bulb or island does not already exist, and a bus stop is located along the project frontage; and/or • A bus stop along the project frontage serves a route with 15 minutes or better peak hour service and has a shared bus-bike lane curb </td> </tr> <tr> <td>Bus shelter</td> <td> <ul style="list-style-type: none"> • A stop with no shelter is located within the project frontage, or • The project is located within 0.10 miles of a flag stop with 25 or more boardings per day </td> </tr> <tr> <td>Concrete bus pad</td> <td> <ul style="list-style-type: none"> • A bus stop is located along the project frontage and a concrete bus pad does not already exist </td> </tr> </tbody> </table>	Improvement	Required by code or when...	Bus boarding bulbs or islands	<ul style="list-style-type: none"> • A bus boarding bulb or island does not already exist, and a bus stop is located along the project frontage; and/or • A bus stop along the project frontage serves a route with 15 minutes or better peak hour service and has a shared bus-bike lane curb 	Bus shelter	<ul style="list-style-type: none"> • A stop with no shelter is located within the project frontage, or • The project is located within 0.10 miles of a flag stop with 25 or more boardings per day 	Concrete bus pad	<ul style="list-style-type: none"> • A bus stop is located along the project frontage and a concrete bus pad does not already exist 	
Improvement	Required by code or when...									
Bus boarding bulbs or islands	<ul style="list-style-type: none"> • A bus boarding bulb or island does not already exist, and a bus stop is located along the project frontage; and/or • A bus stop along the project frontage serves a route with 15 minutes or better peak hour service and has a shared bus-bike lane curb 									
Bus shelter	<ul style="list-style-type: none"> • A stop with no shelter is located within the project frontage, or • The project is located within 0.10 miles of a flag stop with 25 or more boardings per day 									
Concrete bus pad	<ul style="list-style-type: none"> • A bus stop is located along the project frontage and a concrete bus pad does not already exist 									

**TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS**

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures		Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.B Transportation (cont.)			
Impact Trans-1 (cont.)	Curb extensions or bulb-outs	<ul style="list-style-type: none"> Identified as an improvement within site analysis 	
	Implementation of a corridor-level bikeway improvement	<ul style="list-style-type: none"> A buffered Class II or Class IV bikeway facility is in a local or county adopted plan within 0.10 miles of the project location; and The project would generate 500 or more daily bicycle trips 	
	Implementation of a corridor-level transit capital improvement	<ul style="list-style-type: none"> A high-quality transit facility is in a local or county adopted plan within 0.25 miles of the project location; and The project would generate 400 or more peak period transit trips 	
	Installation of amenities such as lighting; pedestrian-oriented green infrastructure, trees, or other greening landscape; and trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan.	<ul style="list-style-type: none"> Always required 	
	Installation of safety improvements identified in the Pedestrian Master Plan (such as crosswalk striping, curb ramps, count down signals, bulb outs, etc.)	<ul style="list-style-type: none"> When improvements are identified in the Pedestrian Master Plan along project frontage or at an adjacent intersection 	
	In-street bicycle corral	<ul style="list-style-type: none"> A project includes more than 10,000 square feet of ground floor retail, is located along a Tier 1 bikeway, and on-street vehicle parking is provided along the project frontages. 	
	Intersection improvements^a	<ul style="list-style-type: none"> Identified as an improvement within site analysis 	
	New sidewalk, directional curb ramps, curb and gutter meeting current City and ADA standards	<ul style="list-style-type: none"> Always required 	
	No monthly permits and establish minimum price floor for public parking^b	<ul style="list-style-type: none"> If proposed parking ratio exceeds 1:1000 sf. (commercial) 	
	Parking garage is designed with retrofit capability	<ul style="list-style-type: none"> Optional if proposed parking ratio exceeds 1:1.25 (residential) or 1:1000 sf. (commercial) 	
	Parking space reserved for car share	<ul style="list-style-type: none"> If a project is providing parking and a project is located within downtown. One car share space reserved for buildings between 50 – 200 units, then one car share space per 200 units. 	

**TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS**

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures		Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.B Transportation (cont.)			
Impact Trans-1 (cont.)	Paving, lane striping or restriping (vehicle and bicycle), and signs to midpoint of street section	<ul style="list-style-type: none"> Typically required 	
	Pedestrian crossing improvements	<ul style="list-style-type: none"> Identified as an improvement within site analysis 	
	Pedestrian-supportive signal changes^c	<ul style="list-style-type: none"> Identified as an improvement within operations analysis 	
	Real-time transit information system	<ul style="list-style-type: none"> A project frontage block includes a bus stop or BART station and is along a Tier 1 transit route with 2 or more routes or peak period frequency of 15 minutes or better 	
	Relocating bus stops to far side	<ul style="list-style-type: none"> A project is located within 0.10 mile of any active bus stop that is currently near-side 	
	Signal upgrades^d	<ul style="list-style-type: none"> Project size exceeds 100 residential units, 80,000 sf. of retail, or 100,000 sf. of commercial; and Project frontage abuts an intersection with signal infrastructure older than 15 years 	
	Transit queue jumps	<ul style="list-style-type: none"> Identified as a needed improvement within operations analysis of a project with frontage along a Tier 1 transit route with 2 or more routes or peak period frequency of 15 minutes or better 	
	Trenching and placement of conduit for providing traffic signal interconnect	<ul style="list-style-type: none"> Project size exceeds 100 units, 80,000 sf. of retail, or 100,000 sf. of commercial; and Project frontage block is identified for signal interconnect improvements as part of a planned ITS improvement; and A major transit improvement is identified within operations analysis requiring traffic signal interconnect 	
	Unbundled parking	<ul style="list-style-type: none"> If proposed parking ratio exceeds 1:1.25 (residential) 	
<p>NOTES:</p> <p>^a Including but not limited to visibility improvements, shortening corner radii, pedestrian safety islands, accounting for pedestrian desire lines.</p> <p>^b May also provide a cash incentive or transit pass alternative to a free parking space in commercial properties.</p> <p>^c Including but not limited to reducing signal cycle lengths to less than 90 seconds to avoid pedestrian crossings against the signal, providing a leading pedestrian interval, provide a "scramble" signal phase where appropriate.</p> <p>^d Including typical traffic lights, pedestrian signals, bike actuated signals, transit-only signals.</p>			

**TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS**

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.B Transportation (cont.)		
Impact Trans-1 (cont.)	<p>v. Other TDM strategies to consider include, but are not limited to, the following:</p> <ul style="list-style-type: none"> ▪ Inclusion of additional long- and short-term bicycle parking that meets the design standards set forth in chapter five of the Bicycle Master Plan, and Bicycle Parking Ordinance (chapter 17.117 of the Oakland Planning Code), and shower and locker facilities in commercial developments that exceed the requirement. ▪ Construction of and/or access to bikeways per the Bicycle Master Plan; construction of priority Bikeway Projects, on-site signage and bike lane striping. ▪ Installation of safety elements per the Pedestrian Master Plan (such as cross walk striping, curb ramps, count-down signals, bulb outs, etc.) to encourage convenient and safe crossing at arterials, in addition to safety elements required to address safety impacts of the project. ▪ Installation of amenities such as lighting, street trees, trash receptacles per the Pedestrian Master Plan Update, the Master Street Tree List and Tree Planning Guidelines (which can be viewed at http://www2.oaklandnet.com/oakca1/groups/pwa/documents/report/oak042662.pdf and http://www2.oaklandnet.com/oakca1/groups/pwa/documents/form/oak025595.pdf respectively) and any applicable streetscape plan. ▪ Construction and development of transit stops/shelters, pedestrian access, way finding signage, and lighting around transit stops per transit agency plans or negotiated improvements. ▪ Direct on-site sales of transit passes purchased and sold at a bulk group rate (through programs such as AC Transit Easy Pass or a similar program through another transit agency). ▪ Provision of a transit subsidy to employees or residents, determined by the Project Applicant and subject to review by the City, if the employees or residents use transit or commute by other alternative modes. ▪ Provision of an ongoing contribution to service to the area between the project and nearest mass transit station prioritized as follows: 1) Contribution to AC Transit bus service; 2) Contribution to an existing area shuttle or streetcar service; and 3) Establishment of new shuttle service. The amount of contribution (for any of the above scenarios) would be based upon the cost of establishing new shuttle service (Scenario 3). ▪ Guaranteed ride home program for employees, either through 511.org or through separate program. ▪ Pre-tax commuter benefits (commuter checks) for employees. ▪ Free designated parking spaces for on-site car-sharing program (such as City Car Share, Zip Car, etc.) and/or car-share membership for employees or tenants. 	

TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.B Transportation (cont.)		
Impact Trans-1 (cont.)	<ul style="list-style-type: none"> ▪ Onsite carpooling and/or vanpooling program that includes preferential (discounted or free) parking for carpools and vanpools. ▪ Distribution of information concerning alternative transportation options. ▪ Parking spaces sold/leased separately for residential units. Charge employees for parking or provide a cash incentive or transit pass alternative to a free parking space in commercial properties. ▪ Parking management strategies; including attendant/valet parking and shared parking spaces. ▪ Requiring tenants to provide opportunities and the ability to work off-site. ▪ Allow employees or residents to adjust their work schedule in order to complete the basic work requirement of five eight-hour workdays by adjusting their schedule to reduce vehicle trips to the worksite (e.g., working four, ten-hour days; allowing employees to work from home two days per week). ▪ Provide or require tenants to provide employees with staggered work hours involving a shift in the set work hours of all employees at the workplace or flexible work hours involving individually determined work hours. <p>The TDM Plan shall indicate the estimated VTR for each strategy proposed based on published research or guidelines where feasible. For TDM Plans containing ongoing operational VTR strategies, the Plan shall include an ongoing monitoring and enforcement program to ensure the Plan is implemented on an ongoing basis during project operation. If an annual compliance report is required, as explained below, the TDM Plan shall also specify the topics to be addressed in the annual report.</p> <p>b. TDM Implementation – Physical Improvements: For VTR strategies involving physical improvements, the project applicant shall obtain the necessary permits/approvals from the City and install the improvements prior to the completion of the project.</p> <p>c. TDM Implementation – Operational Improvements: For projects that generate 100 or more net new a.m. or p.m. peak hour vehicle trips and contain ongoing operational VTR strategies, the project applicant shall submit an annual compliance report for the first five years following completion of the project (or completion of each phase for phased projects) for review and approval by the City. The annual report shall document the status and effectiveness of the TDM program, including the actual VTR achieved by the project during operation. If deemed necessary, the City may elect to have a peer review consultant, paid for by the project applicant, review the annual report. If timely reports are not submitted and/or the annual reports indicate the project applicant has failed to implement the TDM Plan, the project will be considered in violation of the Conditions of Approval and the City may initiate enforcement action as provided for in these Conditions of Approval. The project shall not be considered in violation of this Condition if the TDM Plan is implemented but the VTR goal is not achieved.</p>	

**TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS**

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.B Transportation (cont.)		
Impact Trans-2: The Project Modifications would not cause substantial additional per capita vehicle miles traveled (VMT). (Criterion B) <i>(Less than Significant)</i>	None Required	Less than Significant
Impact Trans-3: The Project Modifications would not substantially induce additional automobile travel by increasing physical roadway capacity in congested areas or by adding new roadways to the network. (Criterion C) <i>(Less than Significant)</i>	None required	Less than Significant
Impact Trans-4: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project site, would not result in a significant adverse cumulative transportation and circulation impact. <i>(Less than Significant)</i>	None required	Less than Significant
IV.C Air Quality		
Impact AQ-1: The Project Modifications would not result in average daily emissions of 54 pounds per day of ROG, NO _x , of PM _{2.5} or 82 pound per day of PM ₁₀ during construction. (Criterion A) <i>(Less than Significant)</i>	None required	Less than Significant
Impact AQ-2: The Project Modifications would not generate operational average daily emissions of more than 54 pounds per day of ROG, NO _x , or PM _{2.5} or 82 pounds per day of PM ₁₀ ; or result in maximum annual emissions of 10 tons per year of ROG, NO _x , or PM _{2.5} or 15 tons per year of PM ₁₀ . (Criterion B) <i>(Less than Significant)</i>	None required	Less than Significant
Impact AQ-3: Project Modifications would not contribute to CO concentrations exceeding the CAAQS. (Criterion C) <i>(Less than Significant)</i>	None required	Less than Significant
Impact AQ-4: The Project Modifications would not introduce new sources of TACs nor expose unplanned residential land uses to TACs. (Criteria D and E) <i>(Less than Significant)</i>	None required	Less than Significant
Impact AQ-5: The Project Modifications would not create or expose sensitive receptors to substantial objectionable odors. (Criterion F) <i>(Less than Significant)</i>	None required	Less than Significant
Impact AQ-6: Emissions generated by Project Modifications, combined with emissions from other past, present and reasonably foreseeable projects would not result in a cumulative air quality impact. <i>(Less than)</i>	None required	Less than Significant

TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.D Hydrology and Water Quality		
Impact HYD-1: The Project Modifications would not violate water quality standards, result in erosion or siltation on- or off-site, contribute substantial runoff, and/or substantially degrade water quality. (Criteria A, C, F, and G) (<i>Less than Significant</i>)	SCA HYD-2 (61): Bay Conservation and Development Commission (BCDC) Approval. <i>Prior to activity requiring permit/approval from BCDC.</i> The project applicant shall obtain the necessary permit/approval, if required, from the Bay Conservation and Development Commission (BCDC) for work within BCDC’s jurisdiction to address issues such as but not limited to shoreline public access and sea level rise. The project applicant shall submit evidence of the permit/approval to the City and comply with all requirements and conditions of the permit/approval.	Less than Significant
Impact HYD-2: The Project Modifications would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge that would result in a net deficit in aquifer volume or lowering the local groundwater table. (Criterion B) (<i>Less than Significant</i>)	None required	Less than Significant
Impact HYD-3: The Project Modifications would not result in substantial flooding on or offsite or create or contribute substantial runoff, which would exceed the capacity of existing or planned stormwater drainage systems. (Criteria D and E) (<i>Less than Significant</i>)	None required	Less than Significant
Impact HYD-4: The Project Modifications would not expose people or structures to a significant risk of loss, injury or death involving flooding. (Criteria H, I, J, and K) (<i>Less than Significant</i>)	SCA HYD-1 (60): Structures in a Flood Zone. <i>Prior to approval of construction-related permit.</i> The project shall be designed to ensure that new structures within a 100-year flood zone do not interfere with the flow of water or increase flooding. The project applicant shall submit plans and hydrological calculations for City review and approval with the construction-related drawings that show finished site grades and floor elevations elevated above the BFE.	Less than Significant
Impact HYD-5: The Project Modifications would not alter site drainage that could generate a change to flow of a creek or stream, and would not conflict with elements of the City of Oakland creek protection ordinance. (Criteria L and M) (<i>Less than Significant with Mitigation</i>)	2009 Mitigation Measure D.1: The project sponsor shall comply with all NPDES requirements, RWQCB General Construction Permit requirements, and all City regulations and Creek Protection Permits requirements.	Less than Significant
Impact HYD-6: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project site, would not result in cumulative impacts with respect to hydrology and water quality. (<i>Less than Significant with Mitigation</i>)	SCA HYD-1: Structures in a Flood Zone (see above) 2009 Mitigation Measure D.1 (see above)	Less than significant
IV.E Cultural Resources and Tribal Cultural Resources		
Impact CUL-1: The Project Modifications would not cause a substantial adverse change in the significance of an historical resource. (Criterion A) (<i>Less than Significant</i>)	None required	Less than significant

TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.E Cultural Resources and Tribal Cultural Resources (cont.)		
<p>Impact CUL-2: The Project Modifications would not cause a substantial adverse change in the significance of an archaeological resource; directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or disturb any human remains, including those interred outside of forma cemeteries. (Criteria B, C, and D) (<i>Less than Significant</i>)</p>	None required	Less than significant
<p>Impact CUL-3: The Project Modifications would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074. (Criterion E) (<i>Less than Significant</i>)</p>	<p>SCA CUL-1 (SCA-32): Archaeological and Paleontological Resources – Discovery During Construction. <i>During construction.</i> Pursuant to CEQA Guidelines section 15064.5(f), in the event that any historic or prehistoric subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant shall notify the City and consult with a qualified archaeologist or paleontologist, as applicable, to assess the significance of the find. In the case of discovery of paleontological resources, the assessment shall be done in accordance with the Society of Vertebrate Paleontology standards. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined unnecessary or infeasible by the City. Feasibility of avoidance shall be determined with consideration of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. Work may proceed on other parts of the project site while measures for the cultural resources are implemented.</p> <p>In the event of data recovery of archaeological resources, the project applicant shall submit an Archaeological Research Design and Treatment Plan (ARDTP) prepared by a qualified archaeologist for review and approval by the City. The ARDTP is required to identify how the proposed data recovery program would preserve the significant information the archaeological resource is expected to contain. The ARDTP shall identify the scientific/historic research questions applicable to the expected resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. The ARDTP shall include the analysis and specify the curation and storage methods. Data recovery, in general, shall be limited to the portions of the archaeological resource that could be impacted by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practicable. Because the intent of the ARDTP is to save as much of the archaeological resource as possible, including moving the resource, if feasible, preparation and implementation of the ARDTP would reduce the potential adverse impact to less than significant. The project applicant shall implement the ARDTP at his/her expense.</p> <p>In the event of excavation of paleontological resources, the project applicant shall submit an excavation plan prepared by a qualified paleontologist to the City for review and approval. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and/or a report prepared by a qualified paleontologist, as appropriate, according to current professional standards and at the expense of the project applicant.</p> <p>SCA CUL-2 (SCA-33): Archaeologically Sensitive Areas – Pre-Construction Measures. <i>Prior to approval of construction-related permit; during construction.</i> The project applicant shall implement either Provision A (Intensive Pre-Construction Study) or Provision B (Construction ALERT Sheet) concerning archaeological resources.</p>	Less than Significant

TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.E Cultural Resources and Tribal Cultural Resources (cont.)		
Impact CUL-3 (cont.)	<p>Provision A: Intensive Pre-Construction Study.</p> <p>The project applicant shall retain a qualified archaeologist to conduct a site-specific, intensive archaeological resources study for review and approval by the City prior to soil-disturbing activities occurring on the project site. The purpose of the site-specific, intensive archaeological resources study is to identify early the potential presence of history-period archaeological resources on the project site. At a minimum, the study shall include:</p> <ol style="list-style-type: none"> a. Subsurface presence/absence studies of the project site. Field studies may include, but are not limited to, auguring and other common methods used to identify the presence of archaeological resources. b. A report disseminating the results of this research. c. Recommendations for any additional measures that could be necessary to mitigate any adverse impacts to recorded and/or inadvertently discovered cultural resources. <p>If the results of the study indicate a high potential presence of historic-period archaeological resources on the project site, or a potential resource is discovered, the project applicant shall hire a qualified archaeologist to monitor any ground disturbing activities on the project site during construction and prepare an ALERT sheet pursuant to Provision B below that details what could potentially be found at the project site. Archaeological monitoring would include briefing construction personnel about the type of artifacts that may be present (as referenced in the ALERT sheet, required per Provision B below) and the procedures to follow if any artifacts are encountered, field recording and sampling in accordance with the Secretary of Interior’s Standards and Guidelines for Archaeological Documentation, notifying the appropriate officials if human remains or cultural resources are discovered, and preparing a report to document negative findings after construction is completed if no archaeological resources are discovered during construction.</p> <p>Provision B: Construction ALERT Sheet.</p> <p>The project applicant shall prepare a construction “ALERT” sheet developed by a qualified archaeologist for review and approval by the City prior to soil-disturbing activities occurring on the project site. The ALERT sheet shall contain, at a minimum, visuals that depict each type of artifact that could be encountered on the project site. Training by the qualified archaeologist shall be provided to the project’s prime contractor, any project subcontractor firms (including demolition, excavation, grading, foundation, and pile driving), and utility firms involved in soil-disturbing activities within the project site.</p> <p>The ALERT sheet shall state, in addition to the basic archaeological resource protection measures contained in other standard conditions of approval, all work must stop and the City’s Environmental Review Officer contacted in the event of discovery of the following cultural materials: concentrations of shellfish remains; evidence of fire (ashes, charcoal, burnt earth, fire-cracked rocks); concentrations of bones; recognizable Native American artifacts (arrowheads, shell beads, stone mortars [bowls], humanly shaped rock); building foundation remains; trash pits, privies (outhouse holes); floor remains; wells; concentrations of bottles, broken dishes, shoes, buttons, cut animal bones, hardware, household items, barrels, etc.; thick layers of burned building debris (charcoal,</p>	

TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.E Cultural Resources and Tribal Cultural Resources (cont.)		
Impact CUL-3 (cont.)	<p>nails, fused glass, burned plaster, burned dishes); wood structural remains (building, ship, wharf); clay roof/floor tiles; stone walls or footings; or gravestones. Prior to any soil-disturbing activities, each contractor shall be responsible for ensuring that the ALERT sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, and supervisory personnel. The ALERT sheet shall also be posted in a visible location at the project site.</p> <p>SCA CUL-3 (SCA-34): Human Remains – Discovery During Construction. <i>During construction.</i> Pursuant to CEQA Guidelines section 15064.5(e)(1), in the event that human skeletal remains are uncovered at the project site during construction activities, all work shall immediately halt and the project applicant shall notify the City and the Alameda County Coroner. If the County Coroner determines that an investigation of the cause of death is required or that the remains are Native American, all work shall cease within 50 feet of the remains until appropriate arrangements are made. In the event that the remains are Native American, the City shall contact the California Native American Heritage Commission, pursuant to subdivision (c) of section 7050.5 of the California Health and Safety Code. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance, and avoidance measures (if applicable) shall be completed expeditiously and at the expense of the project applicant.</p>	
<p>Impact CUL-4: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project site, would not result in significant cumulative impacts with respect to historical resources, archaeological resources, human remains, and tribal cultural resources. (Less than Significant)</p>	<p>SCA CUL-1 (SCA-32): Archaeological and Paleontological Resources – Discovery During Construction (see above)</p> <p>SCA CUL-2 (SCA-33): Archaeologically Sensitive Areas – Pre-Construction Measures (see above)</p> <p>SCA CUL-3 (SCA-34): Human Remains – Discovery During Construction (see above)</p>	Less than Significant
IV.F Geology and Soils		
<p>Impact GEO-1: The Project Modifications would not expose people or structures to risk of loss, injury, or death related to settlement or seismic ground shaking, liquefaction, or earthquake-induced settlement due to a major earthquake within the Project area. (Criterion A) (<i>Less than Significant</i>)</p>	None required	Less than Significant
<p>Impact GEO-2: The Project Modifications would not result soil erosion or loss of topsoil that would create a risk to life, property or waterways. (Criterion B) (<i>Less Than Significant</i>)</p>	None required	Less than Significant
<p>Impact GEO-3: The Project Modifications would not create substantial risks to life or property as a result of being located on expansive soils; above a well, pit, swamp, mound, tank vault, or unmarked sewer line; above landfills or unknown fill soils; or on soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems. (Criteria C, D, E, and F) (<i>Less Than Significant</i>)</p>	None required	Less than Significant

TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.F Geology and Soils (cont.)		
Impact GEO-4: The Project Modifications, when combined with closely related past, present, or reasonably foreseeable development in the vicinity, would not result in significant cumulative impacts with respect to geology, soils, or seismicity. (<i>Less than Significant</i>)	None required	Less than Significant
IV.G Noise		
Impact NOI-1: The Project Modifications would not generate construction-related noise or vibration in violation of the City of Oakland Noise Ordinance on nuisance standards or that exceeds the criteria established by the Federal Transit Administration (FTA). (Criteria A, B, and H) (<i>Less than Significant</i>)	None required	Less than Significant
Impact NOI-2: The Project Modifications would result in generation of additional vehicle traffic that would not result in a 5-dBA permanent increase in existing ambient noise levels in the Project vicinity. (Criterion C) (<i>Less than Significant</i>)	None required	Less than Significant
Impact NOI-3: The Project Modifications would include a landing dock to accommodate an existing water taxi service and additional marina slips to accommodate recreational vessels that would not generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise. (Criterion D) (<i>Less than Significant</i>)	None required	Less than Significant
Impact NOI-4: The Project Modifications would not expose persons to noise greater than the applicable California Noise Insulation Standards nor expose the project to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan, nor expose persons to vibration that exceeds the criteria established by the FTA. (Criteria E, F, and H) (<i>Less than Significant</i>)	<p>SCA NOI-1 (SCA 67): Exposure to Community Noise. The project applicant shall submit a Noise Reduction Plan prepared by a qualified acoustical engineer for City review and approval that contains noise reduction measures (e.g., sound-rated window, wall, and door assemblies) to achieve an acceptable interior noise level in accordance with the land use compatibility guidelines of the Noise Element of the Oakland General Plan. The applicant shall implement the approved Plan during construction. To the maximum extent practicable, interior noise levels shall not exceed the following:</p> <ul style="list-style-type: none"> a. 45 dBA: Residential activities, civic activities, hotels b. 50 dBA: Administrative offices; group assembly activities c. 55 dBA: Commercial activities d. 65 dBA: Industrial activities. 	Less than Significant

**TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS**

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.G Noise (cont.)		
Impact NOI-5: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects, would not cause a substantial permanent increase in ambient noise levels in the project vicinity. (<i>Less than Significant</i>)	None required	Less than Significant
Impact NOI-6: The water taxi component of the Project Modifications, in combination with other past, present, and reasonably foreseeable future projects, would not generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise at future receptors of the Approved Project. (Criterion D) (<i>Less than Significant</i>)	None required	Less than Significant
IV.H Hazards and Hazardous Materials		
Impact HAZ-1: The Project Modifications would not create a significant hazard to the public or the environment through the routine transport, use, disposal, accidental release, or storage of hazardous or acutely hazardous materials. (Criteria A, B, and C) (<i>Less than Significant</i>)	None required	Less than Significant
Impact HAZ-2: The Project Modifications would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed schools. (Criterion D) (<i>Less than Significant</i>)	None required	Less than Significant
Impact HAZ-3: The Project Modifications would not be located on a site identified under Government Code section 65962.5. (Criterion E) (<i>No Impact</i>)	None required	Less than Significant
Impact HAZ-4: The Project Modifications would not result fewer than two emergency access routes for streets exceeding 600 feet in length. (Criterion F) (<i>Less than Significant</i>)	None required	Less than Significant
Impact HAZ-5: The Project Modifications would not fundamentally impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. (Criterion I) (<i>Less than Significant</i>)	None required	Less than Significant
Impact HAZ-6: The Project Modifications, when combined with other past, present, and reasonably foreseeable cumulative development in the vicinity, would not result in cumulative hazardous materials impacts. (<i>Less than Significant</i>)	None required	Less than Significant

TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.I Biological Resources		
<p>Impact BIO-1: The Project Modifications would not 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. (Criterion A) <i>(Less than Significant)</i></p>	<p>SCA BIO-1 (SCA 28): Bird Collision Reduction Measure. The project applicant shall submit a Bird Collision Reduction Plan for City review and approval to reduce potential bird collisions to the maximum feasible extent. The Plan shall include all of the following mandatory measures, as well as applicable and specific project Best Management Practice (BMP) strategies to reduce bird strike impacts to the maximum feasible extent. The project applicant shall implement the approved Plan. Mandatory measures include <u>all</u> of the following:</p> <ul style="list-style-type: none"> i. For large buildings subject to federal aviation safety regulations, install minimum intensity white strobe lighting with three second flash instead of solid red or rotating lights. ii. Minimize the number of and co-locate rooftop-antennas and other rooftop structures. iii. Monopole structures or antennas shall not include guy wires. iv. Avoid the use of mirrors in landscape design. v. Avoid placement of bird-friendly attractants (i.e., landscaped areas, vegetated roofs, water features) near glass unless shielded by architectural features taller than the attractant that incorporate bird friendly treatments no more than two inches horizontally, four inches vertically, or both (the “two-by-four” rule), as explained below. vi. Apply bird-friendly glazing treatments to no less than 90 percent of all windows and glass between the ground and 60 feet above ground or to the height of existing adjacent landscape or the height of the proposed landscape. Examples of bird-friendly glazing treatments include the following: <ul style="list-style-type: none"> – Use opaque glass in window panes instead of reflective glass. – Uniformly cover the interior or exterior of clear glass surface with patterns (e.g., dots, stripes, decals, images, abstract patterns). Patterns can be etched, fritted, or on films and shall have a density of no more than two inches horizontally, four inches vertically, or both (the “two-by-four” rule). – Install paned glass with fenestration patterns with vertical and horizontal mullions no more than two inches horizontally, four inches vertically, or both (the “two-by-four” rule). – Install external screens over non-reflective glass (as close to the glass as possible) for birds to perceive windows as solid objects. – Install UV-pattern reflective glass, laminated glass with a patterned UV-reflective coating, or UV-absorbing and UV-reflecting film on the glass since most birds can see ultraviolet light, which is invisible to humans. – Install decorative grilles, screens, netting, or louvers, with openings no more than two inches horizontally, four inches vertically, or both (the “two-by-four” rule). – Install awnings, overhangs, sunshades, or light shelves directly adjacent to clear glass which is recessed on all sides. – Install opaque window film or window film with a pattern/design which also adheres to the “two-by-four” rule for coverage. 	<p>Less than Significant</p>

TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.I Biological Resources (cont.)		
Impact BIO-1 (cont.)	<p>vii. Reduce light pollution. Examples include the following:</p> <ul style="list-style-type: none"> – Reduce perimeter lighting whenever possible. – Extinguish night-time architectural illumination treatments during bird migration season (February 15 to May 15 and August 15 to November 30). – Install time switch control devices or occupancy sensors on non-emergency interior lights that can be programmed to turn off during non-work hours and between 11:00p.m. and sunrise. – Install full cut-off, shielded, or directional lighting to minimize light spillage, glare, or light trespass. – Do not use beams of lights during the spring (February 15 to May 15) or fall (August 15 to November 30) migration. <p>viii. Develop and implement a building operation and management manual that promotes bird safety. Example measures in the manual include the following:</p> <ul style="list-style-type: none"> – Donation of discovered dead bird specimens to an authorized bird conservation organization or museums (e.g., UC Berkeley Museum of Vertebrate Zoology) to aid in species identification and to benefit scientific study, as per all federal, state and local laws. – Distribution of educational materials on bird-safe practices for the building occupants. Contact Golden Gate Audubon Society or American Bird Conservancy for materials. – Asking employees to turn off task lighting at their work stations and draw office blinds, shades, curtains, or other window coverings at end of work day. – Install interior blinds, shades, or other window coverings in windows above the ground floor visible from the exterior as part of the construction contract, lease agreement, or CC&Rs. – Schedule nightly maintenance during the day or to conclude before 11 p.m., if possible. 	
<p>Impact BIO-2: Project Modifications would not have a substantial adverse effect, either directly or through habitat modifications, on special-status aquatic species. (Criterion A) <i>(Less than Significant with Mitigation)</i></p>	<p>Mitigation Measure BIO-2: <i>Fish and Marine Mammal Protection During Pile Driving.</i> Prior to the start of any in-water construction that would require pile driving, the Project Applicant shall prepare a National Marine Fisheries Service-approved sound attenuation monitoring plan to protect fish and marine mammals, and the approved plan shall be implemented during construction. This plan shall provide detail on the sound attenuation system, detail methods used to monitor and verify sound levels during pile driving activities (if required based on projected in-water noise levels), and describe best management practices to reduce impact pile-driving in the aquatic environment to an intensity level less than 183 dB (sound exposure level, SEL) impulse noise level for fish at a distance of 33 feet, and 160 dB (root mean square pressure level, RMS) impulse noise level. The plan shall incorporate, but not be limited to, the following best management practices:</p> <ul style="list-style-type: none"> • All in-water construction shall be conducted within the established environmental work window between June 1 and November 30, designed to avoid potential impacts to fish species. • A soft start technique to impact hammer pile driving shall be implemented, at the start of each work day or after a break in impact hammer driving of 30 minutes or more, to give fish and marine mammals an opportunity to vacate the area. 	Less than Significant

TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.I Biological Resources (cont.)		
Impact BIO-2 (cont.)	<ul style="list-style-type: none"> • A cushion block will be used during impact hammer pile installation. • If during the use of an impact hammer, established National Marine Fisheries Service pile driving thresholds are exceeded, a bubble curtain or other sound attenuation method as described in the National Marine Fisheries Service-approved sound attenuation monitoring plan shall be utilized to reduce sound levels below the criteria described above. If National Marine Fisheries Service sound level criteria are still exceeded with the use of attenuation methods, a National Marine Fisheries Service-approved biological monitor shall be available to conduct surveys before and during pile driving to inspect the work zone and adjacent waters for marine mammals. The monitor shall be present as specified by the National Marine Fisheries Service during impact pile driving and ensure that: <ul style="list-style-type: none"> – The safety zones established in the sound monitoring plan for the protection of marine mammals are maintained. – Work activities are halted when a marine mammal enters a safety zone and resumed only after the animal has been gone from the area for a minimum of 15 minutes. 	
<p>Impact BIO-3: Construction activities required for the Project Modifications would not result in 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, U.S. Fish and Wildlife Service, or National Marine Fisheries Service. (Criterion B) <i>(Less than Significant with Mitigation)</i></p>	<p>Mitigation Measure BIO-3: Eelgrass Surveys. Prior to the start of any in-water construction, the Project Applicant conduct a National Marine Fisheries Service-approved eelgrass survey consistent with the measures described in the National Marine Fisheries Service’s October 2014 California Eelgrass Mitigation Policy and Implementation Guidelines (2014 CEMP) and include the following:</p> <ul style="list-style-type: none"> • Before in-water construction activities may occur within the marine environment, eelgrass surveys shall be conducted within the construction footprint consistent within the methods outlined within CEMP guidance (NFMS, 2014). • If eelgrass beds are observed adjacent to the construction footprint, but direct impact is avoidable during construction activities, the avoidance and minimization activities outlined in CEMP guidance shall be implemented during all in-water construction work (NFMS, 2014). • If it is determined that direct impact to eelgrass is unavoidable during construction activities, appropriate mitigation consistent with NMFS 2014 Guidance, and commensurate with the level of impact expected, shall be implemented (NFMS, 2014). 	Less than Significant
<p>Impact BIO-4: Project Modifications would not result in a substantial adverse effect on potentially jurisdictional wetlands or waters of the U.S. under the jurisdiction of the U.S. Army Corps of Engineers (USACE), waters of the state under the jurisdiction of the Regional Water Quality Control Board (RWQCB), and wetlands under the jurisdiction of BCDC. (Criterion C) <i>(Less than Significant with Mitigation)</i></p>	<p>2009 Mitigation Measure I.2a: Corps-Verified Wetland Delineation. A preliminary identification of potentially jurisdictional areas was conducted in 2004 (LSA, 2004), and the project sponsor submitted the draft potentially jurisdictional wetland delineation to the Corps in July 2005. The project sponsor shall obtain Corps verification of the preliminary identification of jurisdictional areas prior to submitting permit applications. A verified wetland delineation would be required prior to the submittal of regulatory permit applications.</p> <p>2009 Mitigation Measure I.2b: Wetland Avoidance. Section 404 first requires that projects avoid or minimize adverse effects on jurisdictional waters to the extent practicable. To the extent feasible, the final project design shall minimize effects on wetlands and other waters in accordance with Section 404 of the Clean Water Act. Areas that are avoided shall be subject to Best Management Practices (BMPs), as described in Mitigation Measure I.2.d below. Such measures shall include installation of</p>	Less than Significant

TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.I Biological Resources (cont.)		
Impact BIO-4 (cont.)	<p>silt fencing, straw wattles, or other appropriate erosion and sediment control methods or devices. Equipment used for the removal of debris and concrete riprap along the estuary edge will be operated from land using backhoes and cranes. Construction operations along Clinton Basin and Shoreline Park shall be barge-mounted or shall involve water-based equipment such as scows, derrick barges, and tugs.</p> <p>Additionally, the existing restoration project at the southwest end of Clinton Basin, implemented by the Port of Oakland, shall be protected during construction activities. The extent of this area shall be clearly marked by a qualified biologist prior to the start of any grading or construction activities and a buffer zone established. All construction personnel working in the vicinity of the restoration area shall be informed of its location and buffer zone.</p> <p>2009 Mitigation Measure I.2c: Obtain Regulatory Permits and other Agency Approvals. Prior to the start of construction activities for the project, the project applicant shall obtain all required permit approvals from the Corps, the RWQCB, BCDC, and all other agencies with permitting responsibilities for construction activities within jurisdictional waters of other jurisdiction areas. Permit approvals and certifications shall include but not be limited to Section 404/Section 10 permits from the Corps, Section 401 Water Quality Certification from the RWQCB, and BCDC permit.</p> <ul style="list-style-type: none"> • Section 404/Section 10 Permits. Permit approval from the Corps shall be obtained for the placement of dredge or fill material in waters of the U.S., if any, within the interior of the project site, pursuant to Section 404 of the federal Clean Water Act. <p>Construction along the estuary edge below MHW elevation will be considered dredging by the Corps and will require a Section 10 permit. In addition, dredging of Clinton Basin will also require a Section 10 permit.</p> <ul style="list-style-type: none"> • <i>Section 401 Water Quality Certification.</i> Approval of Water Quality Certification (WQC) and/or Waste Discharge Requirements (WDRs) shall be obtained from the RWQCB for work within jurisdictional waters. Preparation of the Section 401 Water Quality Certification applications will require an application and supporting materials including construction techniques, areas of impact, and project schedule. • <i>BCDC Permit.</i> Permit approval from BCDC shall be obtained for placement of solid material, pilings, floating structures, boat docks, or other fill in the Bay, and/or dredging or other extraction of material from the Bay and within the 100-foot shoreline band inland from mean high tide line along the length of the project site. Project activities subject to this permit approval would include dredging for rebuilding the marina in Clinton Basin and replacement of the 5th Avenue Marina with a new marina that would contain approximately 170 boat slips. The proposed project would include the removal of approximately 33,780 square feet of solid Bay fill as part of the shoreline design and the placement of 74,110 square feet of solid Bay fill for the creation of a village green at Clinton Basin. The project would also include the removal of approximately 129,920 square feet of pile-supported fill with the removal of a portion of the Ninth Avenue Terminal wharf. Additionally, floating fill would be required to create the two proposed marinas. 	

TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.I Biological Resources (cont.)		
Impact BIO-4 (cont.)	<p>The project would be required to comply with all BCDC permit conditions, which typically include requirements to construct, guarantee, and maintain public access to the Bay; specified construction methods to assure safety or to protect water quality; and mitigation requirements to offset the adverse environmental impacts of the project.</p> <p>2009 Mitigation Measure I.2d: Best Management Practices (BMPs). The project applicant shall implement standard BMPs to maintain water quality and control erosion and sedimentation during construction, as required by compliance with the General National Pollution Discharge Elimination System (NPDES) Permit for Construction Activities and established by Mitigation Measure D.1 to address impacts on water quality. Mitigation measures would include, but would not be limited to, installing silt fencing along the edges of the project site to protect estuarine waters, locating fueling stations away from potential jurisdictional features, and isolating construction work areas from the identified jurisdictional features. The project applicant shall also implement BMPs to avoid impacts on water quality resulting from dredging activities within the Bay, as identified in the Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region (LTMS) (Corps, 2001). These BMPs include silt fencing and gunderbooms or other appropriate methods for keeping dredged materials from leaving the project site.</p> <p>2009 Mitigation Measure I.2e: Compensatory Mitigation. The project applicant shall provide compensatory mitigation for temporary impacts to, and permanent loss of, waters of the U.S., including wetlands, as required by regulatory permits issued by the USACE, RWQCB, and BCDC. Measures shall include but not be limited to 1) onsite mitigation through wetland creation or enhancement, 2) development of a Mitigation and Monitoring Plan, and 3) additional wetland creation or enhancement or offsite mitigation.</p> <p>Onsite Mitigation through Wetland Creation or Enhancement. The project applicant shall further enhance the shoreline from Lake Merritt Channel to Clinton Basin. The primary objective of the enhancement shall be to improve the habitat value for shorebirds, gulls, ducks, and other avian life that frequent the area. Components of the restoration plan shall include 1) restoration of the tidal marsh, 2) enhancement of roosting areas for shorebirds and water birds, and 3) increase in habitat diversity. Shoreline enhancements shall include removal of debris, including concrete riprap, and excavation of the shoreline at Channel Park to create marsh vegetation along this area. Excavation shall provide a shoreline slope that falls between the MTL elevation (approximately -2.4 mean sea level) to the MHW") to allow for the colonization of marsh habitat and the creation of high marsh habitat.</p> <p>Mitigation and Monitoring Program. Prior to the start of construction or in coordination with regulatory permit conditions, the project applicant shall prepare and submit for approval to the Corps, RWQCB, BCDC and CDFG a mitigation and monitoring program that outlines the mitigation obligations for temporary and permanent impacts to waters of the U.S., including wetlands, identified in this EIR. The program shall include baseline information from existing conditions, anticipated habitat to be enhanced, thresholds of success, monitoring and reporting requirements, and site-specific plans to compensate for wetland losses resulting from the project. The Oak to Ninth Project Mitigation and Monitoring Plan shall include, but not be limited to, the following:</p>	

**TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS**

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.I Biological Resources (cont.)		
Impact BIO-4 (cont.)	<ul style="list-style-type: none"> • Clearly stated objectives and goals consistent with regional habitat goals. • Location, size, and type of mitigation wetlands proposed. <p>A functional assessment of affected jurisdictional waters to ensure that the EPA's "no net loss of wetland value" standard is met. The functional assessment shall also ensure that the mitigation provided is commensurate with the adverse impacts on Bay resources in accordance with BCDC mitigation policies. The assessment will provide sufficient technical detail in the project design including, at a minimum, an engineered grading plan and water control structures, methods for conserving or stockpiling topsoil, a planting program including removal of exotic species, a list of all species to be planted, sources of seeds and/or plants, timing of planting, plant locations and elevations on the mitigation site base map, and maintenance techniques.</p> <ul style="list-style-type: none"> • Documentation of performance, monitoring, and adaptive management standards that provide a mechanism for making adjustments to the mitigation site. Performance and monitoring standards shall indicate success criteria to be met within 5 years for vegetation, animal use, removal of exotic species, and hydrology. Adaptive management standards shall include contingency measures that shall outline clear steps to be taken if and when it is determined, through monitoring or other means, that the enhancement or restoration techniques are not meeting success criteria. • Documentation of the necessary long-term management and maintenance requirements, and provisions for sufficient funding. <p>Additional Wetland Creation or Enhancement or Offsite Mitigation. If permanent and temporary impacts on jurisdictional waters cannot be compensated for onsite through the restoration of wetland features incorporated within proposed open space and park areas, the project applicant shall negotiate additional compensatory mitigation for these losses with the applicable regulatory agencies. Potential options include the creation of additional wetland acreage onsite or the purchase of offsite mitigation.</p>	
<p>Impact BIO-5: The Project Modifications would not substantially 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. (Criterion D) (Less than Significant with Mitigation)</p>	<p>2009 Mitigation Measure I.3: Protection of Fish and Migrating Salmonids. The project applicant shall implement measures for protection of salmonids and Pacific herring during dredging projects and for indirect impacts on the San Francisco Bay "Essential Fish Habitat" (EFH) that are identified in the <i>Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region</i> (LTMS) (Corps, 2001).</p> <p><i>The Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region</i> (LTMS) (Corps, 2001) identifies specific work windows and Best Management Practices (BMPs) to protect salmonids and Pacific herring during dredging projects and to reduce indirect impacts to the San Francisco Bay EFH. The LTMS was developed during formal consultation among the NMFS, USFWS, and CDFG to address impacts on sensitive fisheries and designated critical habitats under their respective jurisdictions and to standardize mitigation for dredging projects. The Biological Opinion (BO) resulting from the LTMS presents specific restrictions on the timing and design of dredging and disposal projects. As the LTMS states, if the dredging project can be</p>	Less than Significant

**TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS**

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation																																																																																																											
IV.I Biological Resources (cont.)																																																																																																													
Impact BIO-5 (cont.)	<p>accomplished during the identified work windows, the project is authorized for incidental take under the federal Endangered Species Act of 1973, as amended. The LTMS serves as the federal and state pathway for determining potential impacts of dredging and dredge disposal projects on fish species, with timing of construction as the single significance criterion.</p> <p>As identified in the LTMS, restricting dredging and other in-water construction activities to the specified work periods would avoid the direct and indirect impacts on juvenile or adult herring or salmonids that would otherwise result from dredging-related increases in turbidity or changes in water quality. Impacts of dredging operations on coho salmon, Chinook salmon, steelhead, and Pacific herring would therefore be less than significant, provided that dredging activities are conducted within the work windows identified in the LTMS. For waters in central San Francisco Bay, the construction work window for dredging activities in Pacific herring habitat is between March 1 and November 30 (Corps, 2001). The dredging work window for salmonid species in central San Francisco Bay is June 1 through November 30. These work windows are summarized in the table below.</p> <p align="center">2009 MITIGATION MEASURE I.3 TABLE CONSTRUCTION WORK WINDOWS FOR IN-WATER PILE-DRIVING AND OTHER IN-WATER ACTIVITIES</p> <table border="1"> <thead> <tr> <th rowspan="2">Fish Species</th> <th rowspan="2">Work Activity</th> <th colspan="12">Construction Work Windows for Project Activities, by Month</th> </tr> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>Apr</th> <th>May</th> <th>Jun</th> <th>Jul</th> <th>Aug</th> <th>Sep</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Pacific herring</td> <td>Pile-driving</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td>(W)</td> <td></td> </tr> <tr> <td>Other In-Water Activities</td> <td></td> <td></td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td></td> </tr> <tr> <td rowspan="2">Chinook salmon</td> <td>Pile-driving</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td>(W)</td> <td></td> </tr> <tr> <td>Other In-Water Activities</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td></td> </tr> <tr> <td rowspan="2">Steelhead</td> <td>Pile-driving</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td>(W)</td> <td></td> </tr> <tr> <td>Other In-Water Activities</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td>W</td> <td></td> </tr> </tbody> </table> <p>“W” indicates work window when the identified construction activities will minimize impacts to fisheries, in accordance with specific guidance provided by the LTMS (USACE, 2001) for dredging and dredge disposal related activities. “(W)” indicates possible work window. Frank Filice with the San Francisco Department of Public Works indicated that a letter from NMFS (on another project) established a June 1 to November 30 work window for pile-driving activities (Filice, personal communication). The actual project construction work window will be determined by the USACE in consultation with NMFS during the permitting phase of the project.</p>	Fish Species	Work Activity	Construction Work Windows for Project Activities, by Month												Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Pacific herring	Pile-driving						W	W	W	W	W	(W)		Other In-Water Activities			W	W	W	W	W	W	W	W	W		Chinook salmon	Pile-driving						W	W	W	W	W	(W)		Other In-Water Activities						W	W	W	W	W	W		Steelhead	Pile-driving						W	W	W	W	W	(W)		Other In-Water Activities						W	W	W	W	W	W		
Fish Species	Work Activity			Construction Work Windows for Project Activities, by Month																																																																																																									
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**TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS**

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.I Biological Resources (cont.)		
Impact BIO-5 (cont.)	<p>Implementation of BMPs and adherence to construction timing as outlined in the LTMS would reduce impacts on special-status fish species. As feasible, BMPs, including silt curtains and gunderbooms, shall be implemented to isolate the work area and prevent silt and sediment from entering the estuary.</p> <p>Potential impacts resulting from pile-driving activities in the estuary would be avoided or reduced to a less-than-significant level by either avoiding pile-driving activities between November 1 and June 1 or assuring that pile-driving would result in noise levels below 150 decibels at 10 meters. Proposed construction work windows for pile-driving activities are also presented in the table below.</p> <p>Any pile-driving work occurring outside of these work windows would be conducted in accordance with NMFS directives and Corps permits to reduce potential impacts on fish species.</p> <p>The quantity of in-water features (such as pilings and pier structures) under the proposed project would be comparable to existing conditions, therefore an increase in the number of predatory fish is not expected. Similarly, the composition of fish species using the shallow-water aquatic habitats is not expected to change following project implementation.</p>	
Impact BIO-6: The Project Modifications would not fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan. (Criterion E) (Less than Significant with Mitigation)	2009 Mitigation Measure I.2b (see above)	Less than Significant
Impact BIO-7: The Project Modifications would not fundamentally conflict with the City of Oakland Tree Protection Ordinance or Creek Protection Ordinance. (Criteria F and G) (Less than Significant)	None required	Less than Significant
Impact BIO-8: The Project Modifications, in conjunction with other foreseeable development in the City and along its shoreline, would not result in impacts on wetlands, other waters of the U.S., and special-status species. (Less than Significant with Mitigation)	<p>2009 Mitigation Measure I.2a (see above)</p> <p>2009 Mitigation Measure I.2b (see above)</p> <p>2009 Mitigation Measure I.2c (see above)</p> <p>2009 Mitigation Measure I.2d (see above)</p> <p>2009 Mitigation Measure I.2e (see above)</p> <p>2009 Mitigation Measure I.3 (see above)</p> <p>Mitigation Measure BIO-2: Fish and Marine Mammal Protection During Pile Driving (see above)</p> <p>Mitigation Measure BIO-3: Eelgrass Surveys (see above)</p>	Less than Significant

TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.J Population and Housing		
Impact POP-1: The Project Modifications would not induce substantial population growth in a manner not contemplated in the General Plan, either directly or indirectly, such that additional infrastructure is required but the impacts of such were not previously considered or analyzed (Criterion A) (Less than Significant)	None required	Less than Significant
Impact POP-2: The Project Modifications would not directly or indirectly displace substantial numbers of existing people or housing units necessitating the construction of replacement housing elsewhere. (Criteria B and C) (Less than Significant)	None required	Less than Significant
Impact POP-3: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects, would not induce substantial population growth in a manner not contemplated in the General Plan and would not result in the displacement of a substantial numbers of people or housing units. (Less than Significant)	None required	Less than Significant
IV.K Aesthetics, Shadow, and Wind		
Impact AES-1: The Project Modifications would not have a substantial adverse effect on a public scenic vista. (Criterion A) (Less than Significant)	None required	Less than Significant
Impact AES-2: The Project Modifications would not substantially degrade the existing visual character or quality of the site and its surroundings. (Criterion C) (Less than Significant)	None required	Less than Significant
Impact AES-3: The Project Modifications would create a new source of light, but would not substantially or adversely affect day or nighttime views in the area. (Criterion D) (Less than Significant)	SCA AES-1 (SCA 19). Lighting. <i>Prior to building permit final.</i> Proposed new exterior lighting fixtures shall be adequately shielded to a point below the light bulb and reflector to prevent unnecessary glare onto adjacent properties.	Less than Significant
Impact AES-4: The Project Modifications would not cast shadow that would substantially impair a nearby use reliant on sunlight, including the following functions: a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors; the beneficial use of any public or quasi-public open space; a historic resource. (Criteria E, F, G, and H) (Less than Significant)	None required	Less than Significant

**TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS**

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.K Aesthetics, Shadow, and Wind (cont.)		
Impact AES-5: The Project Modifications would require approval of a general plan amendment and rezoning, and would be consistent with the policies and regulations addressing the provision of adequate light to appropriate uses. (Criterion I) (Less than Significant)	SCA AES-1 (SCA 19): Lighting (see above)	Less than Significant
Impact AES-6: The Project Modifications would not create winds that exceed 36 mph for more than one hour during daylight hours during the year. (Criterion J) (Less than Significant)	None required	Less than Significant
Impact AES-7: The Project Modifications, combined with cumulative development in the Project vicinity and citywide, would not result in significant cumulative impact related to scenic vistas, visual character, light sources, shadow, or wind. (Less than Significant)	SCA AES-1 (SCA 19): Lighting (see above)	Less than Significant
IV.L Public Services and Recreation		
Impact PS-1: The Project Modifications would not involve or require new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency medical services. (Criterion A.i) (Less than Significant)	None required	Less than Significant
Impact PS-2: The Project Modifications would not result in an increase in demand for police services that would require new or physically altered police facilities in order to maintain acceptable service ratios, response times, or other performance objectives. (Criterion A.ii) (Less than Significant)	None required	Less than Significant
Impact PS-3: The Project Modifications would not result in an increase in new students for public schools at a level that would require new or physically altered school facilities in order to maintain acceptable performance objectives. (Criterion A.iii) (Less than Significant)	None required	Less than Significant
Impact PS-4: The Project Modifications would not result in an increase in demand for libraries at a level that would require new or physically altered library facilities in order to maintain acceptable service ratios. (Criterion A.iv) (Less than Significant)	None required	Less than Significant

**TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS**

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.L Public Services and Recreation (cont.)		
Impact PS-5: The Project Modifications would not result in an increase in demand for maritime emergency services and law enforcement at a level that would require new or physically altered governmental facilities to maintain acceptable performance objectives. (Criterion A.iv) (Less than Significant)	None required	Less than Significant
Impact PS-6: The Project Modifications would not result in an increase in demand for parks and recreational services at a level that would generate substantial physical deterioration or require the construction of new or physically altered facilities in order to maintain service ratios. (Criteria B and C) (Less than Significant)	None required	Less than Significant
Impact PS-7: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project site, would not result in significant cumulative impacts with respect to public services including recreation. (Less than Significant)	None required	Less than Significant
IV.M Utilities and Service Systems		
Impact UTL-1: The Project Modifications would not generate water demand that exceeds water supplies available from existing entitlements and resources. (Criterion C) (Less Than Significant)	None required	Less than Significant
Impact UTL-2: Impact UTL-2: The Project Modifications would not result in a determination by the wastewater treatment provider that it does not have adequate capacity to serve the projected demand in addition to the providers' existing commitments and would not exceed the wastewater treatment capacity of the San Francisco Bay Regional Water Quality Control Board (RWQCB). (Criteria A and D) (Less than Significant)	SCA UTL-1 (SCA 87): Sanitary Sewer System. <i>Prior to approval of construction-related permit.</i> The project applicant shall prepare and submit a Sanitary Sewer Impact Analysis to the City for review and approval in accordance with the City of Oakland Sanitary Sewer Design Guidelines. The Impact Analysis shall include an estimate of pre-project and post-project wastewater flow from the project site. In the event that the Impact Analysis indicates that the net increase in project wastewater flow exceeds City-projected increases in wastewater flow in the sanitary sewer system, the project applicant shall pay the Sanitary Sewer Impact Fee in accordance with the City's Master Fee Schedule for funding improvements to the sanitary sewer system.	Less than Significant
Impact UTL-3: The Project Modifications would not require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects exceed the capacity of the City's stormwater drainage facilities. (Criterion B) (Less than Significant)	None required	Less than Significant

TABLE II-2 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Level of Significance After Application of Standard Conditions of Approval and Mitigation
IV.M Utilities and Service Systems (cont.)		
<p>Impact UTL-4: The Project Modifications would be served by a landfill with sufficient permitted capacity to accommodate the Project Modifications' solid waste disposal needs and would not violate applicable federal, state, and local statutes and regulations related to solid waste. (Criteria E and F) (Less Than Significant)</p>	<p>SCA UTL-2 (SCA 84): Recycling Collection and Storage Space. <i>Prior to approval of construction-related permit.</i> The project applicant shall comply with the City of Oakland Recycling Space Allocation Ordinance (chapter 17.118 of the Oakland Planning Code). The project drawings submitted for construction-related permits shall contain recycling collection and storage areas in compliance with the Ordinance. For residential projects, at least two (2) cubic feet of storage and collection space per residential unit is required, with a minimum of ten (10) cubic feet. For nonresidential projects, at least two (2) cubic feet of storage and collection space per 1,000 square feet of building floor area is required, with a minimum of ten (10) cubic feet.</p>	Less than Significant
<p>Impact UTL-5: The Project Modifications would not result in a determination by the energy provider that serves the Project site that it does not have adequate capacity to serve the Project Modification's projected demand in addition to the providers' existing commitments, and would not violate applicable federal, state, or local statutes and regulations relating to energy standards. (Criteria G and H) (Less Than Significant)</p>	None required	Less than Significant
<p>Impact UTL-6: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project area, would not result in significant cumulative impacts with respect to utilities and service systems. (Less than Significant)</p>	SCA UTL-1 (SCA 87): Sanitary Sewer System (see above)	Less than Significant
IV.N Greenhouse Gas Emissions		
<p>Impact GHG-1: The Project Modifications would not involve a stationary source that would produce total emissions of more than 10,000 metric tons of CO₂e annually. (Criterion A) (Less than Significant)</p>	None required	Less than Significant
<p>Impact GHG-2: The Project Modifications not involve a land use development that fails to demonstrate consistency with the 2030 Equitable Climate Action Plan (ECAP) (Criterion A) (Less than Significant)</p>	<p>SCA GHG-1 (SCA 41): Project Compliance with the Equitable Climate Action Plan (ECAP) Consistency Checklist. Requirement. The project applicant shall implement all the measures in the Equitable Climate Action Plan (ECAP) Consistency Checklist that was submitted during the Planning entitlement phase.</p> <ul style="list-style-type: none"> a. For physical ECAP Consistency Checklist measures to be incorporated into the design of the project, the measures shall be included on the drawings submitted for construction-related permits. b. For physical ECAP Consistency Checklist measures to be incorporated into the design of the project, the measures shall be implemented during construction. c. For ECAP Consistency Checklist measures that are operational but not otherwise covered by these SCAs, including but not limited to the requirement for transit passes or additional Transportation Demand Management measures, the applicant shall provide notice of these measures to employees and/or residents and post these requirements in a public place such as a lobby or work area accessible to the employees and/or residents. 	Less than Significant

CHAPTER III

Project Description

III.A Project Overview

Zarsion-OHP 1, LLC (Project Applicant) proposes the Brooklyn Basin Marina Expansion Project (Project Modifications) as a modification of the previously approved 64.2-acre project (Approved Project) analyzed under the 2009 Brooklyn Basin EIR (2009 EIR).^{1,2} The Project Modifications include a residential density increase of 600 units (for a Project site total of up to 3,700 units), an update to the parking ratios to current zoning code requirements in other zoning districts, and an expansion of the approved marina infrastructure and operation including increasing the number of slips by 158, and incorporating provisions with the marina improvements to accommodate an existing water taxi/shuttle service currently operating on San Francisco Bay. The Approved Project includes 64.2 acres of land area and 7.95 acres of water surface for marina facilities and 167 boat slips. The Project Modifications would add 158 boat slips and approximately 10 acres of water surface to the Project site. (See Table III-4.)

The Project site is bounded by Fallon Street and Jack London Square to the west, Embarcadero and Interstate 880 (I-880) to the north, and the Oakland Estuary³ to the south and 10th Avenue (generally) to the east. Estuary Park, the southern portion of Lake Merritt Channel (the channel), Clinton Basin, and the Ninth Avenue Terminal are included in the Project site, but approximately 4.72 acres of privately-held parcels along 5th Avenue are not included.⁴ The Project site consists of Alameda County Assessor's Parcel Numbers (APNs) 018-0430-001-14, 018-0460-004-11, 018-0460-004-06, 08, 018-0465-002-06, 12, 15, 27, 29, 30. A map and aerial photograph of the Project site and the surrounding vicinity are provided below as **Figure III-1** and **Figure III-2**.

¹ The total Approved Project site after implementation would consist of 64.2 acres of land area, including a pile-supported pier area, and approximately 7.95 acres of water surface for marina facilities.

² For the purpose of this Supplemental EIR (SEIR) analysis, the 2009 EIR is comprised of the following documents: *Oak to Ninth Avenue Project Draft EIR*, August 2005; *Oak to Ninth Avenue Project, 2006 Addendum #1 to the Certified Environmental Impact Report*, June 7, 2006; *Oak to Ninth Avenue Project Final EIR*, August 2006; *Revisions to the Analysis in the Oak to Ninth Project EIR (SCH. No. 2004062013) Prepared to Comply with the Alameda County Superior Court Order Case No. RG06-280345 and Case No. RG06-280471*, November 2008; *Oak to Ninth Avenue Project Responses to Comments on the Revisions*, December 2008; and City of Oakland Resolution No. 81769 C.M.S., approved January 20, 2009.

³ The estuary connects with the east side of San Francisco Bay approximately 3.0 miles from the Project site.

⁴ Parcels surrounded by and excluded from the Project site include 018-0460-001-00 west of 5th Avenue (approximately 6.0 acres) and 018-0460-002-00 east of 5th Avenue (approximately 28,000 square feet). Although these parcels have not changed, more recent surveys indicate that, together, they cover approximately 4.72 acres rather than the 6.0 acres assumed in the 2009 EIR.



SOURCE: ESA, 2019; Google Earth, 2019

Brooklyn Basin Marina Expansion Project

Figure III-2
Aerial Photo of Project Area

The Project site is currently zoned Planned Waterfront Zoning District 4 (PWD-4) with a General Plan land use designation of Estuary Policy Plan Planned Waterfront Development 4 (PWD-4). The Project Applicant seeks a General Plan Amendment and associated zoning code amendment to increase the Project site's allowable residential density from 3,100 to 3,700 units. This aspect of the Project Modifications also requires approval of a revised Preliminary Development Plan (PDP) permit. The Project Applicant also seeks an amendment to the approved Development Agreement (DA) between the Project Applicant and the City (see III.C *Background* and III.F *Discretionary Actions and Other Planning Considerations*, below).

III.B Project Objectives

The Project Modification's objectives are consistent with those identified for the Approved Project in the 2009 EIR and listed below. Overall, primary objectives include providing to the Bay Area and the City of Oakland a revitalized accessible waterfront with open spaces for public use and a range of housing opportunities.

- Redevelop the Project site into a mixed-use development that provides the public greater access to the Oakland Estuary shoreline.
- Provide a mixture of dwelling sizes and types, including rental and for-sale units to accommodate a range of potential residents.
- Provide a range of commercial uses that meet both visitor- and neighborhood-serving goals by providing goods and services to the region, the city, and the local community.
- Ensure an active street frontage by developing a combination of street-level townhouses, ground-floor retail, and a continuous theme of public walkways and open space throughout the Project site.
- Provide additional housing, particularly on existing underutilized land as encouraged by Housing Element policies of the General Plan, to help meet existing housing needs and help alleviate the current jobs/housing imbalance for the region.
- Develop housing in close proximity to abundant transit opportunities, including BART, Amtrak, the San Francisco Bay Regional Ferry, and AC Transit.
- Remediate existing contamination in soil and groundwater at the site, in accordance with applicable regulatory standards and consistent with the proposed future uses.
- Redevelop and remediate an underutilized and environmentally challenged site to allow it to be used for its highest and best use for the community.
- Enhance the appearance of an existing urban infill property to improve the streetscape and visual quality of this important site and redevelop a currently underutilized site.
- Provide a significant amount of open space and water-oriented activities accessible to the general public to encourage the public to interact with the Oakland Estuary both visually and recreationally.
- Provide a vital connection to local and regional waterfront trail systems, as well as both physical and visual linkages between the waterfront and inland communities.

- Develop a Project that is economically feasible in terms of residential density, building massing, parking, public open space, infrastructure, and other amenities.
- Design and develop public facilities (streets, sidewalks, lighting, parks, open space, etc.) that can be maintained and operated in a sustainable and cost-effective manner.
- Accomplish Project objectives in a manner that maximizes the use of private funding sources and minimizes the use of public funds.
- Provide an economically feasible, integrated, and cohesive redevelopment project that includes timely phasing and construction of infrastructure improvements.
- Generate significant, new permanent and construction jobs and the ability to attract capital investment into Oakland.
- Provide infill development in furtherance of Smart Growth principles.
- Provide new permanent and accessible open space areas and extend pedestrian walkways along the estuary in order to meet the passive recreational needs of local residents and visitors, and to complement the existing and proposed surrounding urban fabric while enhancing the waterfront access experience for visitors and employees to the area.
- Develop a Project that will generate significant property tax increment to be used in the Central City East Redevelopment Plan Area and Central District Urban Redevelopment Plan Area, and additional tax revenues to the City of Oakland.

In addition, the Project Modifications add the following objectives (Zarsion-OHP 1, LLC, 2018):

- Utilize current building code standards and market demands to maximize unit count and design efficient buildings.
- Increase marina capacity of the project by expanding the marina facilities to the Shoreline Park waterfront.
- Create an economically viable marina that can sustain costs of maintenance dredging, construction, operation, and insurance in the Bay Area.
- Design a marina to accommodate a landing dock for water taxi service that includes features to accommodate passenger loading and unloading and that will support the multimodal transportation options within Brooklyn Basin for a more sustainable community.

III.C Approved Project

The Approved Project consists of a mixed-use development subdivided into five phases: Phases I-IV and Phase IA, (see **Figure III-3**), and includes the following components (see **Table III-1**).⁵

⁵ For the purposes of this SEIR, the Approved Project described in this chapter constitutes the project approved under CEQA and may differ slightly from the Approved PUD.

**TABLE III-1
APPROVED PROJECT**

Land Use	Size of Development	Associated Parking^{b,c}
Residential	3,100 units	3,100 parking spaces
Retail ^a	200,000 sf	400 spaces
Marina	167 slips (7.95 in-water acres)	34 spaces
Open Space	31 acres	-
Towers	5 towers of up to 240 feet	-

NOTES:

- ^a Retail uses include: retail, restaurant, service, and small office uses to support the new residential neighborhood and serve visitors to the site
- ^b Residential uses were to include one space per unit, retail/commercial uses were to include one space per 500 square feet, and marina was to include one space per five slips. Of the total spaces, 3,500 would be provided in enclosed parking structures to serve residential and retail/commercial uses, and an additional 34 spaces would serve marina uses.
- ^c An additional approximately 450 spaces would be available primarily for use by park and marina users: approximately 75 spaces in surface parking lots in the proposed open space areas, and approximately 375 on-street parking spaces. These spaces would not count toward satisfying parking demand or City Code-required parking.

SOURCE: City of Oakland, 2005.

The Approved Project, which is under construction, includes elements to redevelop the Project site into a mixed-use neighborhood with residential, retail/commercial, open space and recreation facilities, and marina uses. Up to 3,100 residential dwelling units and 200,000 square feet of ground-floor retail/commercial space were approved for construction on 12 development parcels. Building heights generally were approved to range from 6 to 8 stories (up to 86 feet), with high-rise tower elements of up to 24 stories (240 feet) on certain parcels (parcels A, H, J, K, and M). Approximately 31 acres of the site were approved as parkland, trails, and open space. The Approved Project includes approximately 3,534 onsite parking spaces located within structures. The majority of existing uses and structures on the Project site were approved for removal or demolition, except for approximately 20,000 square feet of the former 180,000 square-foot Ninth Avenue Terminal building, a historic resource located at the south end of the site, which was approved for preservation and restoration. The Approved Project involves the renovation of the existing Fifth Avenue Marina and Clinton Basin Marina, which entails dredging activities of about 20,000 cubic yards of material, and provides for 167 boat slips total.⁶ Proposed shoreline improvements along the site include straightening Clinton Basin and implementing marsh habitat improvements, riprap, and bulkhead walls. A phased remediation process for cleanup of the site to appropriate levels was approved pursuant to applicable regulatory requirements with the California Department of Toxic Substances Control (DTSC) as the lead oversight agency. The Approved Project is designed with four major phases (with a sub-phase) of development, for a total of five phases (see Figure III-3).

⁶ The 2009 EIR analyzed 170 slips on the Project site, which included 35 existing and 17 proposed new slips for a total of 52 slips in Clinton Basin Marina and 60 existing and 58 proposed new slips for a total of 118 slips in the Fifth Avenue Marina. However, the Preliminary Development Plan and Development Agreement include 60 slips in the Clinton Basin Marina. Therefore, the Project Modifications add 158 new slips for a total of 325 slips in both the Clinton Basin and the Fifth Avenue Marinas.

The Approved Project includes a new land use designation and associated standards to replace what was the Estuary Policy Plan Planned Waterfront Development 1 (PWD-1). These land use designations and zoning have been approved and are now the applicable and operative land use development policies for the area. The land use designation (PWD-4) and zoning district (PWD-4) establish specific regulations to facilitate the development of an integrated mixed-use project. The zoning regulations distribute the residential density over the Project site by allocating a baseline density for each of the 13 development parcels as shown in **Table III-2** below. However, the regulations allow for some flexibility in the maximum number of dwelling units that can be developed on a particular parcel such that the total maximum number of dwelling units (or net density) on the Project site as a whole cannot be exceeded. The number of approved units, or baseline density, for a parcel may be transferred by right to another development parcel by up to 33 percent of the baseline density of the parcel receiving the transferred units (or up to 50 percent subject to design review approval).

**TABLE III-2
EXISTING PWD-4 ZONING DISTRICT DENSITY DISTRIBUTION**

Location	Baseline Permitted Density of Units	Permitted Density of Units with Permitted Density Transfers as of December 2019	Delta	Enabling Procedure
Parcel A	407	254	-153 / 37.6%	Design Review, swap with Parcel F
Parcel B	175	241	+66 / 38%	Design Review
Parcel C	175	241	+66 / 38%	Design Review
Parcel D	175	243	+57 / 33%	By right, swap with Parcel M
Parcel E	131	174	+43 / 33%	By right, swap with Parcel K
Parcel F	165	211	+46 / 28%	Design Review, swap with Parcel A
Parcel G	300	371	+71 / 23%	By right, swap with Parcel K
Parcel H	375	380	+5 / 1%	By right, swap with Parcel M
Parcel J	339	378	+39 / 12%	By right, swap with Parcel M
Parcel K	322	231	-91 / 28%	By right, swap with Parcel G
Parcel L	146	146	0 / 0	No Change
Parcel M	390	230	-160 / 41%	Design Review, swap with Parcel D, H, J
Total	3100	3100		

SOURCE: City of Oakland, 2019.

III.D Existing Conditions

III.D.1 Project Location and Surrounding Uses

The current Project site land area is the same as the Project site for the Approved Project under 2009 EIR which consists of the approximately 64.2-acre land area shown in Figures III-1 through III-3. As a part of the Approved Project, the Project Applicant currently has a marina lease with the Port of Oakland for two submerged parcels totaling approximately 7.95 acres. To accommodate the marina expansion, the Project Applicant would seek to increase the area under lease with the

Port of Oakland to increase the Project site water surface area by 10 acres from 7.95 acres to approximately 17.95 acres.⁷ The Project site is bounded by Fallon Street and Jack London Square to the west, Embarcadero and I-880 to the north, and the Oakland Estuary to the south and approximately 10th Avenue to the east.⁸

The Oakland Estuary, to the south, is currently used by the Port of Oakland, the U.S. Coast Guard, and is approved for various shoreline improvements under the Central Estuary Plan (City of Oakland, 2013), recreational boat owners, several masters, college and high school rowing teams, and commercial vessels.⁹ Downtown Oakland and Oakland Chinatown are located approximately two miles northwest of the project area. The San Antonio District, located north of I-880, contains various residential types and densities and a range of commercial uses along the major east-west corridors of International Boulevard and East 12th Street. To the north, the Embarcadero runs immediately adjacent and parallel to I-880 and the Amtrak and Union Pacific Railroad west of 5th Avenue. Further north, beyond I-880, significant land uses include the continuation of the Union Pacific Railroad east of 5th Avenue, Peralta Community College District facilities and Laney College Campus, Bay Area Rapid Transit (BART) maintenance shop facilities, and the San Antonio District. East of the Project site are hotel, retail, and marine-related retail uses along the Embarcadero and marina facilities along Brooklyn Basin. To the west, are the Portobello and the Landing residential condominium developments, commercial warehouses, a television broadcasting storage facility, and commercial, residential, and live-work uses in the Jack London District approximately 1.0 mile to the west.

The Oakland/San Francisco Ferry stations in Oakland and Alameda are each located approximately 1.0 to 1.5 miles to the west, and the Oakland Amtrak train station near Jack London Square is about 0.8 mile west along the Embarcadero. The nearest BART station is the Lake Merritt Station located nearly 0.9 mile to the northwest. Several AC Transit bus lines can be accessed at the Lake Merritt BART Station and the Jack London Square Amtrak Station (approximately 0.9 and 0.8 miles from the Project site respectively).

As stated above, the Project site currently has City of Oakland General Plan/Estuary Policy Plan land use designations of PWD-4 and Open Space (OS) and zoning classification of PWD-4.

III.D.2 Site Development Since 2009

Site Development 2009 to September 2018

Between 2009 and publication of the Notice of Preparation (NOP) for this Supplemental EIR (SEIR) (September 2018), portions of the Approved Project were implemented. These changes to

⁷ The total Approved Project site after implementation would consist of 64.2 acres of land area, including pile-supported pier area, and approximately 7.95 acres of water surface for marina facilities. The marina expansion would redesign the Approved Project's proposed Shoreline Park waterfront resulting in an increase of approximately 10 acres of water surface for a Project site total of 17.95 acres.

⁸ The estuary connects with the east side of San Francisco Bay approximately three miles from the site.

⁹ Coast Guard Island is a 68-acre man-made island within the city limits of Alameda and is only accessible from the city of Oakland. Facilities at the Island support the U.S. Coast Guard's operations along the West Coast.

the Project site are presented below. Specifically, the following components of the Approved Project were either completed or underway as of September 2018¹⁰:

Phase I (Parcels A, B, C, G, and G)

Remediation of Phase I development area

Recordation of Phase I Final Map

Construction of Phase I onsite improvements and Phase I offsite improvements

Construction of Phase I park and open space improvements

Construction of Parcel B multifamily development

Approval of Final Development Permits (FDPs) for Affordable Housing on Parcels A and F

Approval of FDPs for Parcels C and G

Phase II (Parcels D, E, H, and J)

Remediation of Phase II development area

Recordation of Phase II Final Map

Approval of Phase II onsite improvements

Approval of FDP for Phase II through IV Park and Open Space uses

As identified above, the Project Applicant has removed existing onshore structures including a portion of the Ninth Avenue Terminal building for the development of Shoreline Park (also known as Township Commons). The site has also been subject to remediation associated with Phase I and Phase II development areas. As of the date of the NOP, the Project site is not included in the list of Hazardous Waste and Substances sites in the Department of Toxic Substances Control (DTSC) EnviroStor database, one of the lists meeting the “Cortese List” requirements (CalEPA, 2019).

FDPs for streets, landscaping and infrastructure for Project site common areas (i.e. roadways and other areas not a part of specific development parcels or parks) under Phases I and II are approved, along with FDPs for Parcels A, B, C, F, and G vertical development, and all parks. Construction of Phases I and II has already commenced, including work on the Phase I landside components (Shoreline Park, Ninth Avenue Terminal Building) and construction of the building at Parcel B.

Site Development September 2018 to June 2021

As noted above, the Project Modifications’ proposed additional 600 residential units would be developed on Phases III and IV. Since publication of the NOP, additional portions of the Approved Project were implemented on Phases I and II. This SEIR relies on an inventory of existing and pending FDP approvals on Phases I and II and baseline density transfers between parcels to make conservative and reasonable assumptions about how the Approved Project

¹⁰ Additional construction has occurred since 2018 but the CEQA Guidelines recommend that the existing baseline for analysis in an EIR should normally be the date that the Notice of Preparation is published (CEQA Guidelines section 15125). Although not required, this EIR also describes additional progress on the Approved Project through early 2021, the date of publication of this draft SEIR.

residential units would be distributed between phases and thus to understand the context within which the Project Modifications' proposed additional density and tower relocation would occur.

Since publication of the NOP, buildings on Phases I and II have submitted FDPs and all parcels on Phases I and II now have FDPs that are either approved or under review. Buildings on parcels A and C are under construction. Buildings on parcels B and F are occupied (see **Table III-3**). Therefore, it is reasonable to assume that, of the Approved Project's 3,100 residential units, approximately 2,493 would be developed on Phases I and II and the remaining 607 could be developed on Phases III and IV.¹¹ In addition to taking advantage of the allowable density transfers, FDPs (approved and under review) have been granted minor variances for a reduction in the residential parking ratio. The final approved residential parking is also shown in Table III-3.

**TABLE III-3
STATUS OF APPROVED PROJECT ELEMENTS AS OF SEIR PUBLICATION**

Location	Residential (units)	Retail (sf)	Residential Parking	Other Parking	Height	Status
Shoreline Park	-	21,800	-	38		Constructed
Parcel A1	130	-	165	0	8-story (86 feet tall)	Under Construction
Parcel A2	124		141		8-story (86 feet tall)	FDP Approved (June 2019)
Parcel B	241	3,000	241	0	8-story (86 feet tall)	Occupied
Parcel C	241	3,500	240	0	8-story (8 feet tall)	Under Construction
Parcel D ^a	243	4000	170	14	8-story (85 feet tall)	FDP Under Review
Parcel E ^a	174	0	174	0	8-story (85 feet tall)	FDP Under Review
Parcel F1	101	0	192	0	8-story (86 feet tall)	Occupied
Parcel F2	110	0	0	0	8-story (86 feet tall)	Occupied
Parcel G	371	34,556	329	82	7-story (82 feet)	FDP Approved (March 2019)
Parcel H	380	16,598	274	34	8-story (84 feet tall)	FDP Approved (March 2019)
Parcel J	378	2,700	329	0	8-story (85 feet tall)	FDP Approved (December 2019)
Total	2,493	86,154	2,248	168		
Remaining for Phases III and IV	607	113,846	852	266		

NOTES:

^a The SEIR analysis is based on previous proposals for parcels D and E and assumes total Phase I and II unit count of 2,493. Subsequent to the analysis, revised FDPs include fewer units on Parcel D and additional units on Parcel E for a total Phase I and II unit count of 2,499. The 6-unit difference does not amount to a meaningful change and would not influence the analysis or conclusions in this SEIR.

SOURCE: City of Oakland, 2019/2020.

¹¹ The SEIR analysis is based on previous proposals for parcels D and E and assumes total Phase I and II unit count of 2,493. Subsequent to the analysis, revised FDPs include fewer units on Parcel D and additional units on Parcel E for a total Phase I and II unit count of 2,499. The 6-unit difference does not amount to a meaningful change and would not influence the analysis or conclusions in this SEIR.

III.E Characteristics of the Project Modifications

As identified under *Project Overview*, the Project Modifications would increase the number of residential units by 600 (for a Project site total of up to 3,700 units and a Phase III/IV total of approximately 1,207 units), update parking ratios to current City of Oakland zoning code requirements applicable in similar zoning districts of 0.75 parking spaces per residential unit, and expand the approved marina infrastructure and operation, including accommodating a water taxi/shuttle service operating on San Francisco Bay (see **Figure III-4**). **Table III-4** provides a breakdown of the proposed Project Modifications in the context of the Approved Project. Note, as calculated in the table notes and further described above, FDPs on Phases I and II were granted minor variances for reduced residential parking. Therefore, the total for residential parking would be less than Project Modifications’ proposed 450 spaces added to the Approved Project’s residential parking spaces.

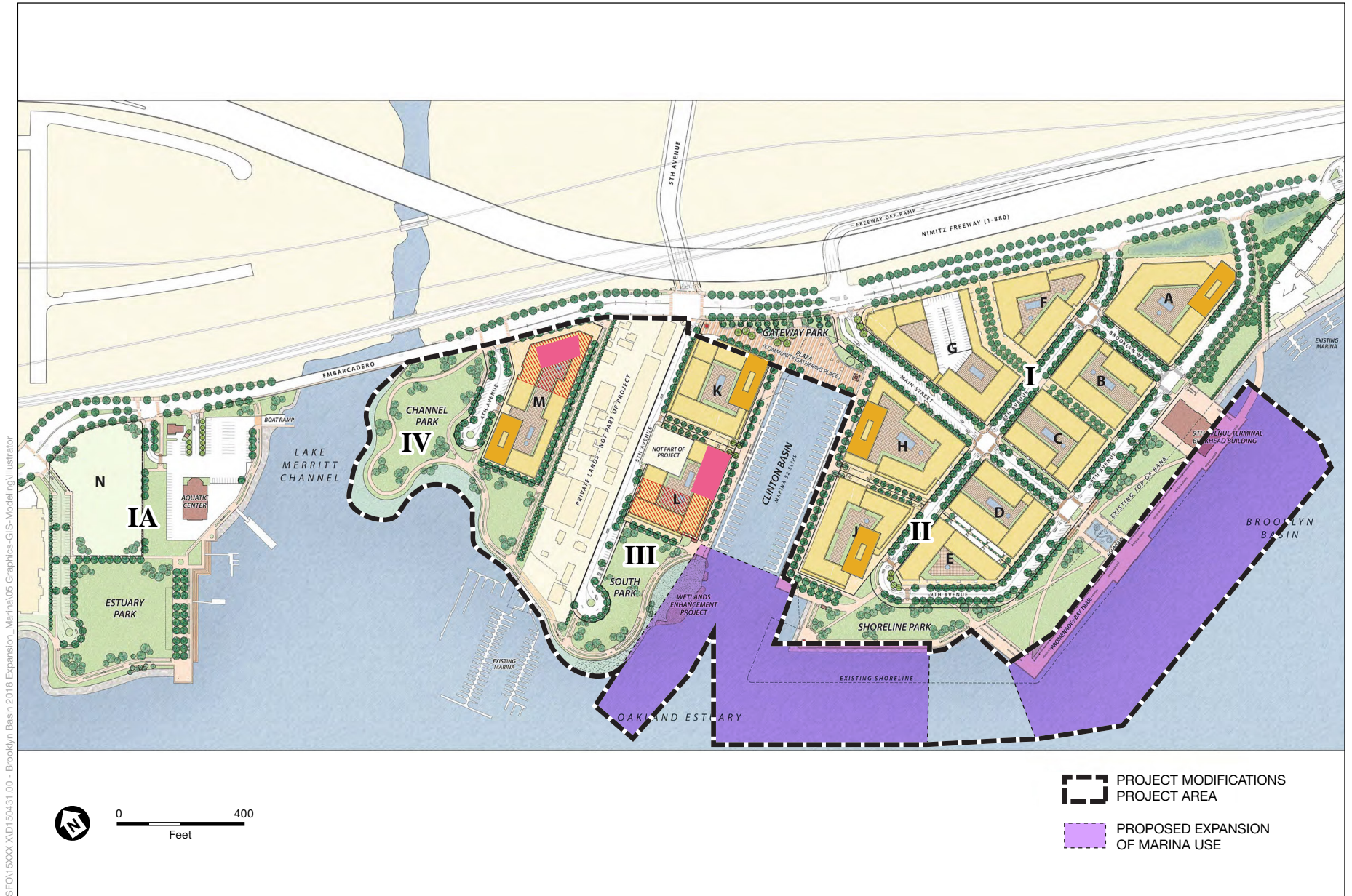
**TABLE III-4
PROJECT COMPARISON**

Land Use	Approved Project	Project Modifications	Total
Residential			
Units	3,100 units	600 units	3,700 units
Towers: Building Envelope / Phase	5 towers of 240 feet/ Phases I–IV	5 towers of 240 feet/designated tower site relocated from Phase II to Phase III or IV	5 towers of 240 feet/ Phases I and III or IV
Parking	3,100 spaces ^a	450 spaces ^b	3,160 spaces ^c
Retail^d			
Area	200,000 sf	No change	200,000 sf
Parking	400 spaces	No change	400 spaces
Marina			
In-Water Acreage	7.95 acres	10 acres	17.95 acres
Slips/Vessel Size	167	158	325 slips
Water Taxi Landing Dock	0	1	1
Parking	34 spaces	Add 31 spaces	65 spaces
Open Space			
Acreage	31 acres	No change	31 acres

NOTES:

- ^a 2009 EIR parking rates were calculated at: 1 space per residential unit; 1 space for every 500 feet of retail; and 1 space per 5 marina slips.
- ^b Project Modifications would update the residential parking ratio to 0.75, consistent with current City requirements in other zoning districts. At this ratio, the 600 units from the Project Modifications would yield 450 residential parking spaces.
- ^c Project Modifications would also apply the updated residential parking ratio of 0.75 to future development or 1,207 of units (600 units from the Project Modifications and 607 remaining Approved Project units) (see Table III-2 above). Thus, the Modified Project would include 3,160 spaces (2,255 spaces from existing FDPs) + (600*0.75 = 450) + (607*0.75 = 455) = 3,160 spaces.
- ^d Retail uses include: retail, restaurant, service, and small office uses to support the new residential neighborhood and serve visitors to the site.
- ^e As described below, this SEIR analyzes the additional 158 slips proposed for the Clinton Marina.
- ^f Note, the marina parking spaces are provided to accommodate demand associated with the marina slips. Due to the proximity to the Jack London Square Ferry Terminal, it is assumed the water taxi would be used by project residents and employees only and no parking would be dedicated for water taxi riders.

SOURCE: Approved Project details from City of Oakland, 2005, and Project Modification details from Zarsion-OHP 1, LLC, 2019.



SFO15XXX.XID150431.00 - Brooklyn Basin 2018 Expansion_Marina05_Graphics-GIS-Modeling/illustrator

SOURCE: ROMA Design Group, 2019

Brooklyn Basin Marina Expansion Project

Figure III-4
Project Modifications Project Area



III.E.1 Increased Residential Density

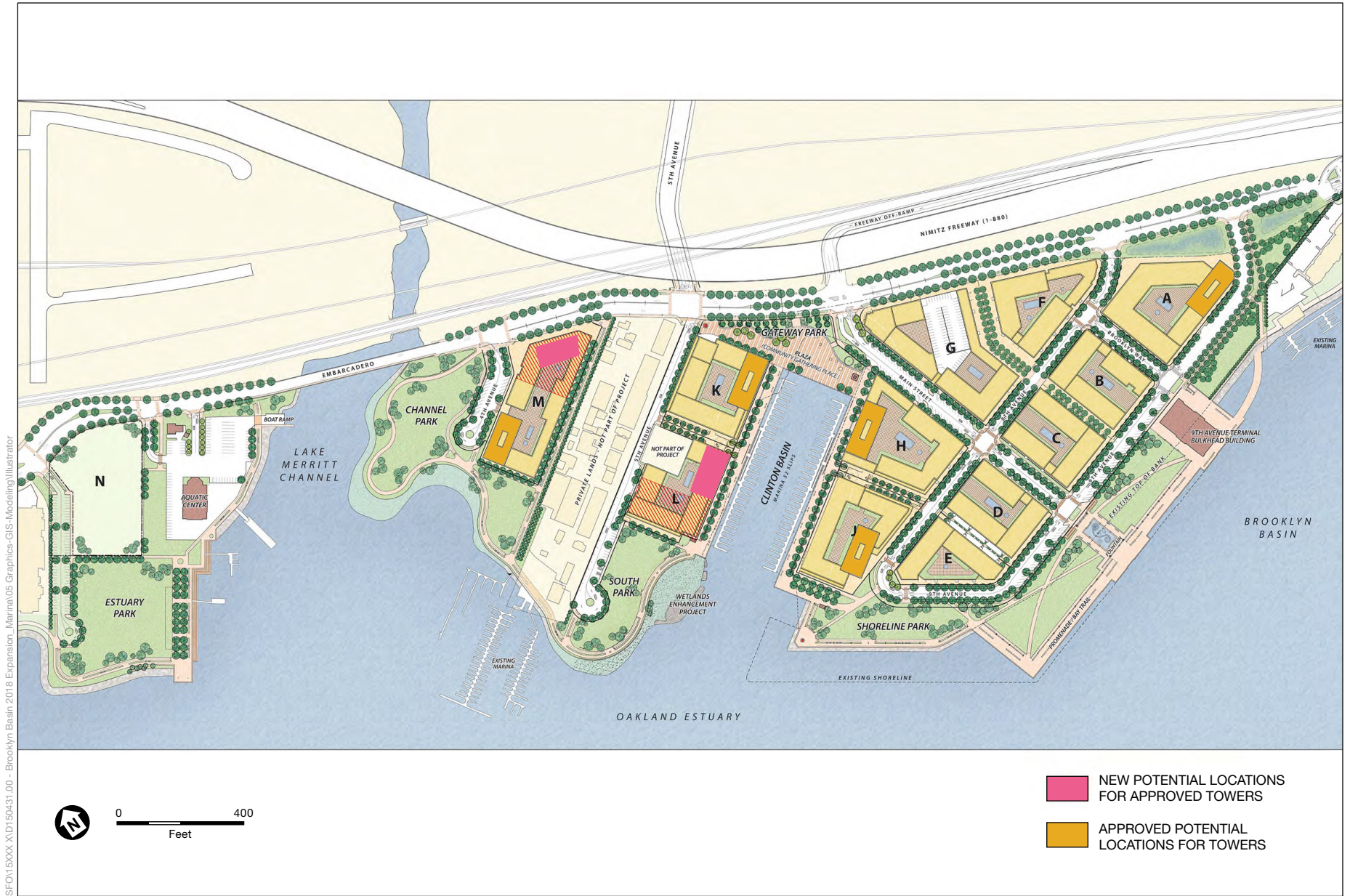
The Project Applicant is proposing changes to the Approved Project in response to both amendments to the California Building Code (2017) allowing additional stories of concrete podium/base under five levels of wood frame construction, and a change in housing market demands. In addition, as described above, FDPs for Phases I and II parcels are either approved or under review. The proposals for those parcels took advantage of PUD allowance to shift units within the Project site and shift units from one parcel to another through the FDP design review process. The result is the large majority of the Approved Project's 3,100 units have been granted FDP's or are already under construction for the first two Phases. Specifically, as described under Existing Conditions above, approximately 2,493 residential units are currently planned for the first two phases leaving 607 units available for development on Phases III and IV under the existing approvals. Due to the changes in building code since the original project approval and the shifts in locations of units between parcels under the PDP allowance, along with the proposed amendment to the required residential parking ratio (see Section III.E.5 below), Phases III and IV are able to accommodate the remaining available units along with the Project Modifications' proposed 600 additional residential units for a Project site total of up to 3,700 units without any modifications to the Approved Project's building envelope, including total overall height, massing, and setbacks. The proposed changes to the marina would increase the approved footprint of the marina. Therefore, this SEIR analyzes whether there are any new significant environmental impacts from the development of 600 additional residential units on the Project site in Phases III and IV, as well as the other proposed modifications to the Project (see below), that were not analyzed and disclosed in the 2009 EIR.

III.E.2 Residential Tower Relocation

The Approved Project includes five high-rise tower elements of up to 24 stories (240 feet) on Parcels A, H, J, K and M (see **Figure III-5**). The Project Modifications would relocate one of these tower designations from either Parcel H or J to either Parcel L or M, potentially resulting in two towers on Parcel M. This change would not increase the total number of towers on the Project site as a whole. However, it would result in a shift in the location of one of the Approved Project's towers and would shift the timing of the construction of that tower from Phase II to Phase III or IV and additional building mass in Phase III or IV. As shown on Figure III-5, the new potential tower location on Parcel M would align with the northernmost portion of the parcel along the Embarcadero and be set back from the Fifth Avenue Point. The new potential tower location on Parcel L would align with Clinton Basin on the easternmost portion of the parcel also setback from the Fifth Avenue Point.

III.E.3 Marina Expansion

The Project Applicant has a marina lease with the Port of Oakland for two submerged parcels totaling approximately 7.95 acres. The Project Modifications would no longer build the slips that were approved on the northern side of the Clinton Basin Marina and would build new slips extending from Clinton Basin to Brooklyn Basin along the Shoreline Park waterfront. As shown in **Figure III-6**, the marina expansion would add in-water infrastructure along the east side of South Park, along the south and east of Shoreline Park extending north to the Ninth Avenue Terminal building. If approved, the marina expansion, together with the approved Clinton Basin portion of



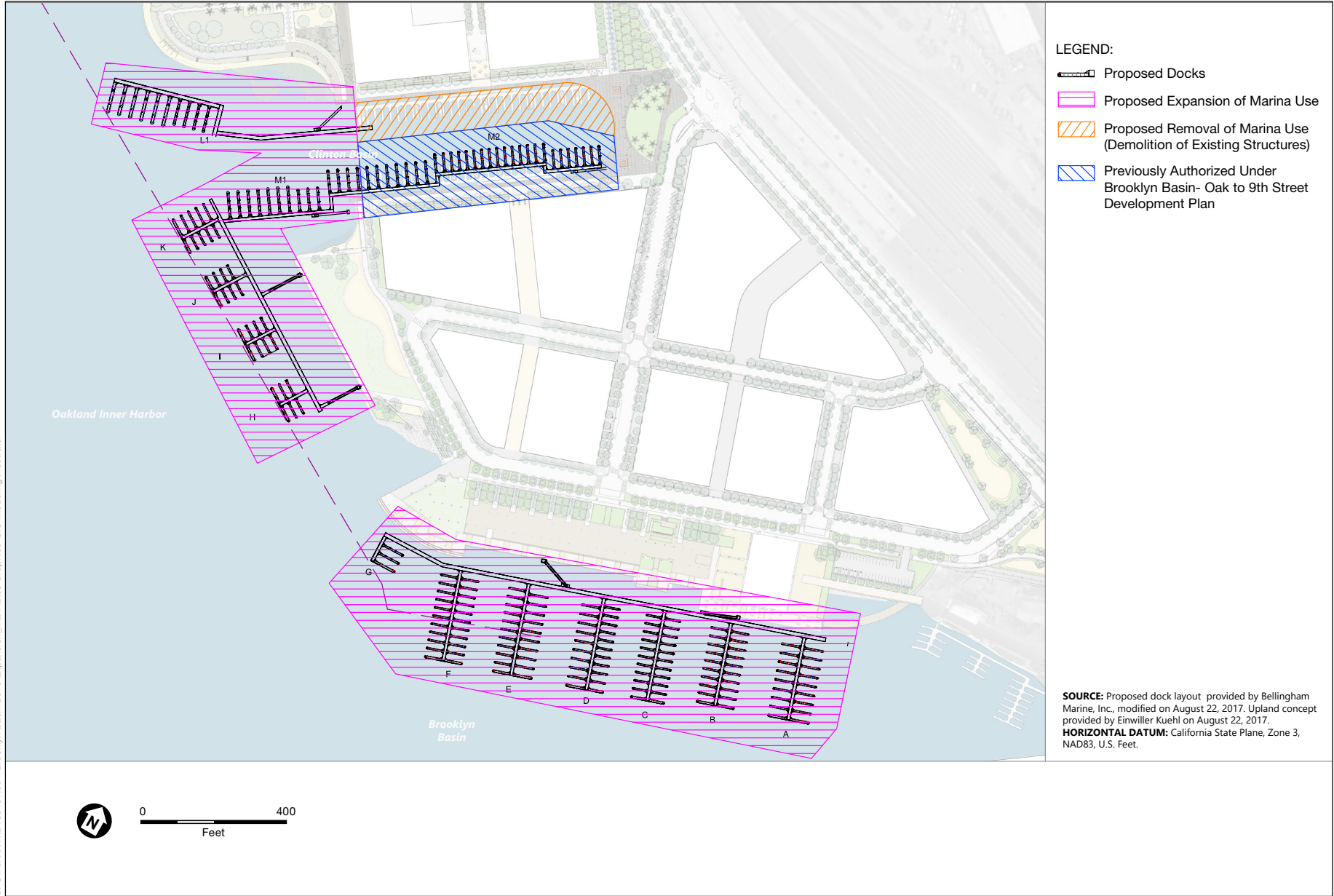
SFO15XXX XID150431.00 - Brooklyn Basin 2018 Expansion_Marina05_Graphics-GIS-Modeling/illustrator

SOURCE: ROMA Design Group, 2019

Brooklyn Basin Marina Expansion Project

Figure III-5
Relocation of Potential Tower Locations





SOURCE: Anchor QEA, 2019

Brooklyn Basin Marina Expansion Project



Figure III-6
 Previously Approved and Proposed Marina Modifications

the marina would result in marina infrastructure along the entire shoreline of the peninsula containing Phases I and II. Compared with the Approved Project, which includes 64.2 acres of land area and 7.95 acres of water surface for marina facilities, the marina expansion component would add approximately 10 acres of water surface area for a Project site total of 17.95 water surface acres.

The Approved Project permits 60 slips, comprised of 35 existing and 25 new, in Clinton Basin, and the upgrade of approximately 118 existing slips in the Fifth Avenue Marina, which results in a decrease in slips in the Fifth Avenue Marina to approximately 107 slips. The Project Modifications would not change the approved actions related to the Fifth Avenue Marina.

The Project Modifications would upgrade the southern Clinton Basin slips, eliminate the approved slips on the northern side of the Clinton Basin slips that are part of the Approved Project, and increase the number of slips spanning from Clinton Basin along the Shoreline Park. As a result of the Project Modifications, the slips associated with Clinton Basin would increase from the 60 approved to 218, for an increase of 158 slips compared with the Approved Project. Therefore, an addition of 158 slips is analyzed for the Project Modifications throughout this SEIR.

The marina expansion component of the Project Modifications would shift marina construction away from the north side of Clinton Basin, which contains a lot of sediment, much of which is contaminated and thereby reduce the need for dredging contaminated sediment. Instead the Project Modifications would redevelop only the southern portion of Clinton Basin, which does not require dredging. This expanded marina would consist of pre-manufactured concrete floating dock system comprised of 14 docks to be constructed in five phases. These new docks would provide 218 recreational boat slips ranging from 40 to 80 feet in length wrapping along the shoreline from immediately east of 9th Avenue, along the Shoreline Park waterfront, continuing west and then northeast, and terminating at the most northern portion of Clinton Basin. The docks constructed along the most southwestern portion of Clinton Basin would accommodate larger vessels (up to 80 feet in length), with a long dock extending north along the shoreline. This proposed dock would be configured to maximize activation of the waterfront and reduce dredging compared with the Approved Project. Upland access to the docks would be provided by seven gangways of various lengths. The Project Modifications would add a main walkway and associated improvements near the Ninth Avenue Terminal Building to access the expanded marina facility fronting Shoreline Park. The expanded marina would include required boat-serving utilities including a pump-out facility for proper sewage disposal, power outlet centers, transformers, and lighting. Utilities serving the marina improvements would be installed per current code requirements intended to protect water quality and public safety. Lighting would be provided in both power centers and pedestals, and would be installed for localized safety lighting along the main dock walkways to project light downward. No pump-out facility currently exists in Clinton Basin or Brooklyn Basin. Like the Approved Project, the expanded marina would incorporate a central, publicly accessible pump-out station for proper sewage disposal. As with the Approved Project, no fuel station would be introduced.

III.E.4 Landing Dock for Ferry / Water Taxi Service

To complement the new marina uses and to provide multi-modal transit options within Brooklyn Basin, the Project Modifications would include a landing dock at the north end of the Shoreline Park waterfront to accommodate an existing on-demand water taxi (small-scale ferry service) that

is already operating on the Bay. This service would be of a limited-capacity and available to the residents of the Project site and the public. The water taxi service would commence with the operator's existing 40-foot, 12-passenger vessel with the ability to increase ridership capacity with its 56-foot, 45-passenger vessel. Initial service would include pre-arranged, on-demand service operating approximately one to two days per week consisting of approximately two trips per day during the morning and evening commute hours, depending on demand. As demand increases and circumstances warrant, the on-demand service would have the capacity to grow to up to six round trips per day five days per week also during the commute hours. Assuming maximum capacity with 43 passengers in both directions, the on-demand service would accommodate a total 516 passengers on a daily basis. For the purposes of a conservative analysis, this SEIR assumes the worst-case scenario which is the maximum capacity on-demand service. To transition from on-demand service to posted scheduled service, the service provider would be required to apply to the California Public Utilities Commission (CPUC) and establish that the added service is both a necessity and of public convenience. The application would require discretionary approval by the CPUC and thus would be assessed for the need for CEQA environmental review.

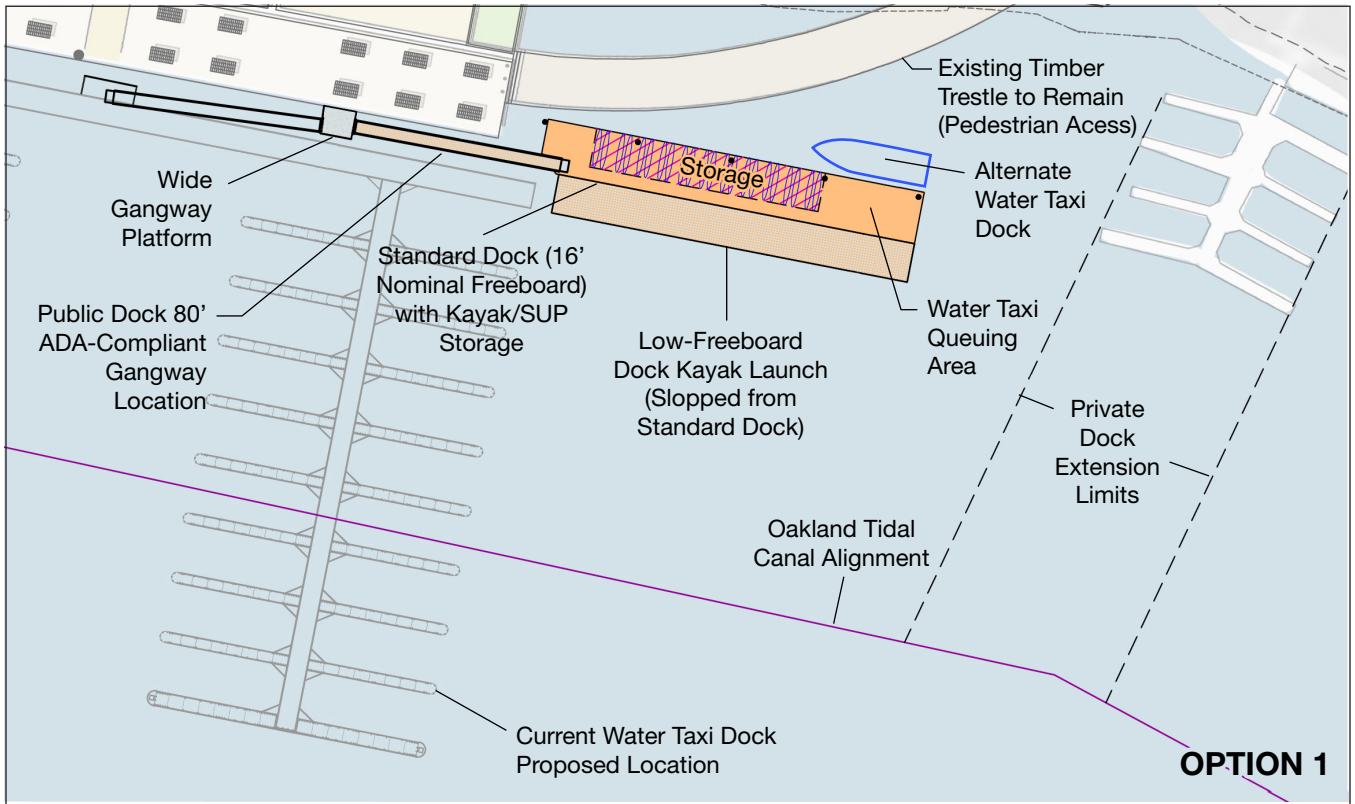
Access to the future dock would be provided via the marina gangways and main walkway improvements constructed near the Ninth Avenue Terminal Building (see **Figure III-7**). While the on-demand service could accommodate up to 516 daily passengers, no dedicated automobile parking would be provided to support this ridership. Due to the proximity to the Jack London Square Ferry Terminal and no dedicated parking for water taxi riders, these riders would most likely be limited to residents and employees in the area who can walk or bike to the water taxi service.

III.E.5 Parking Ratios

No changes to the Approved Project's circulation are proposed. At the time the Approved Project was analyzed, City of Oakland Municipal Code required minimum parking ratios of one covered space per residential dwelling unit, one space per 1,000 square feet of retail/commercial use, and one space per five marina slips. Therefore, as noted above, the 2009 EIR considered 3,534 onsite and code complaint parking spaces as a part of the Approved Project.

The Project Modifications would update the required residential parking ratio to the current code requirement in similar zoning districts of 0.75 spaces per residential unit. This would apply to the 1,207 units assumed to be developed on Phases III and IV. The Project Modifications would maintain the same marina parking ratio, and thus would include 31 additional marina-related parking spaces (refer to Table III-4).¹² There is no additional parking proposed for water taxi service.

¹² Note the Project Modifications would increase the overall marina slip count by 158 slips from 167 to 325. The 2009 EIR analyzed 170 slips on the Project site, which included 35 existing and 17 proposed new slips for a total of 52 slips in Clinton Basin Marina and 60 existing and 58 proposed new slips for a total of 118 slips in the Fifth Avenue Marina. However, the Preliminary Development Plan and Development Agreement include 60 slips in the Clinton Basin Marina. Therefore, the Project Modifications add 158 new slips for a total of 218 slips in the Clinton Basin Marina. However, for the purposes of a conservative analysis, for estimating trip generation, the landing dock infrastructure is treated as the physical equivalent of two marina berths. Further, several topic areas within this SEIR analyze an additional 166 slips specifically in Clinton Basin by relying on the original 52 slips in Clinton Basin described in the 2009 EIR.



OPTION 1

NOTES:

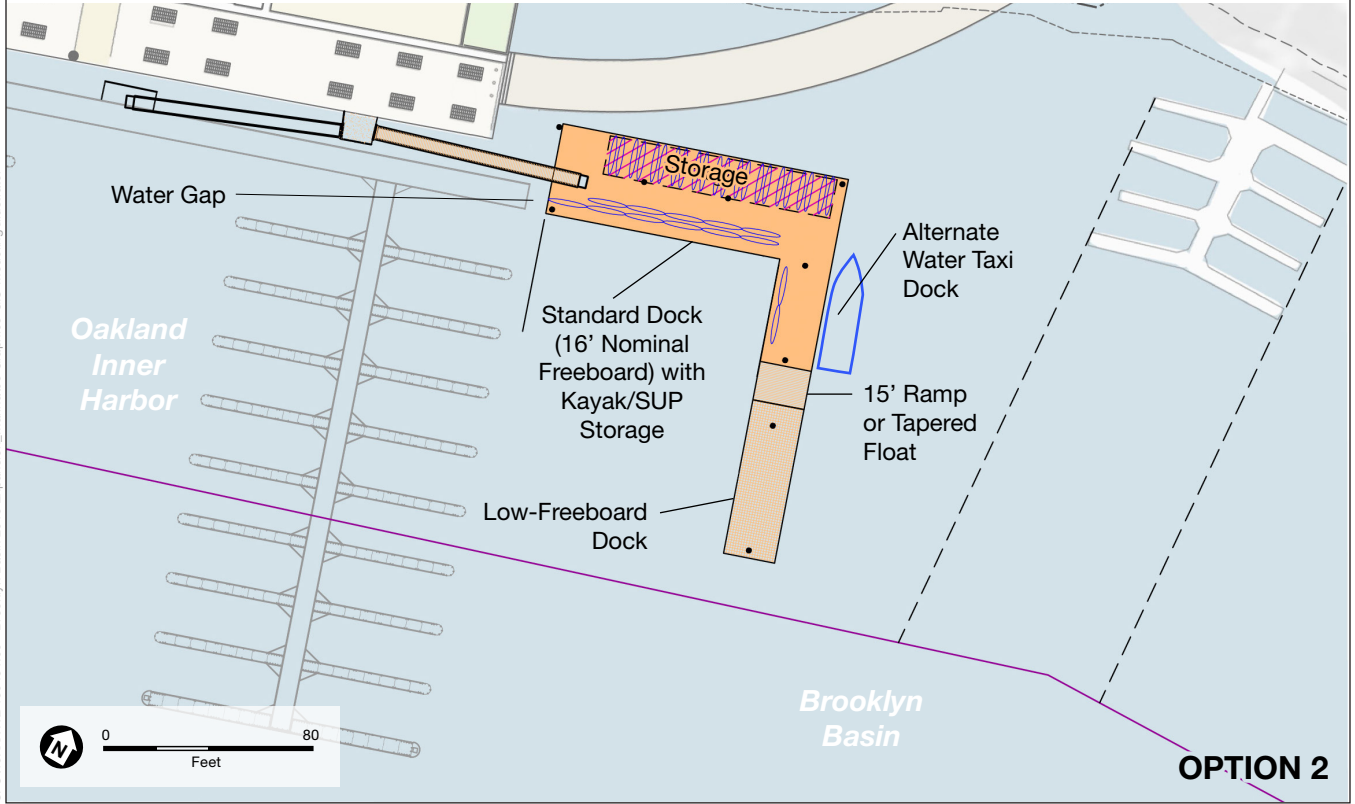
Proposed Docks

Gangway = Land-to-Dock Ramp

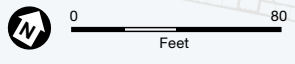
Headwalk = Access Dock Parallel to Shore

ADA-Compliant = Handicap Accessible

SUP = Stand-Up Paddleboard



OPTION 2



SFO15XXX.XD150431.00 - Brooklyn Basin 2018 Expansion_Marina05_Graphics-GIS-Modeling/Illustrator

SOURCE: Anchor QEA, 2019

Brooklyn Basin Marina Expansion Project

Figure III-7
Proposed Water Taxi Access Layouts



III.E.6 Project Phasing and Construction

Although the Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV (but reduced building mass in Phase II), no change is proposed to the number or height of the Approved Project towers. The Project Modifications would occur within the same overall building envelopes as the Approved Project. The Project Modifications would result in an approximate 10 percent increase in labor force and associated worker trips to and from the site, as well as an approximately 10 percent increase in delivery trips to develop the additional 600 residential units in Phases III and IV.

Regarding the Project site, other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project and there would be no substantial increase in duration of residential construction-related activity with approval of the Project Modifications.

The marina expansion component (Phase VI) would result in additional construction-related delivery trips and extended construction timeframe due to limited in-water construction. Phase VI is anticipated to be constructed over five seasons rather than one season, with approximately 20 construction materials delivery trips per season.¹³

In addition, the proposed amendment to the Development Agreement would extend the term under which certain portions of the project could be developed from 2025 to 2031 and other portions to 2038.

Changes to in-water construction activity would be associated with the marina expansion. The Project Modifications would replace the existing Clinton Basin Marina with a new marina extending from Clinton Basin to Brooklyn Basin along Shoreline Park. The expanded marina would consist of pre-manufactured concrete floating dock system comprised of 14 docks, ranging from 40 to 80 feet in length, to be constructed in five phases. This expansion in marina footprint would require the installation of 14-, 16-, and 18-inch steel piles to support the marina platforms. Considering the scale of additional in-water construction activity relative to the overall project construction analyzed in the 2009 EIR, the additional onshore vehicle trips associated with construction of the Project Modifications would not be significant and would not warrant further analysis. Further, as it relates to air quality, because the 2009 EIR estimated construction-related particulate emissions using Year 2010 emission factors, particulate emissions for all future development would be reduced from those estimated in the 2009 EIR as improvements to the construction fleet have reduced emissions resulting from implementation of CARB's 2007 In-Use Off-Road Diesel Vehicle Regulation Program that was amended in December 2011 (see Section IV.C, *Air Quality*).

¹³ For marina construction, a season begins on June 1st and ends on November 30th. No construction would occur outside these months.

III.E.7 General Plan and Zoning

To accommodate the increased density, the City would need to amend the Estuary Policy Plan, (which is part of the General Plan) and the Planning Code to increase the permitted average residential density in the PWD-4 land use classification and PWD-4 zoning district from 50 to 58 dwelling units per gross acre. With these amendments, the Project's applicable General Plan and zoning regulations would permit an increase in the total number of units allowed on the Project site from 3,100 to 3,700. These amendments are required to accommodate a revised PUD permit (which includes amendments to the Preliminary Development Plan), an amendment to the approved Development Agreement between the Project Applicant and the City, and a new Tentative Tract Map.

III.F Discretionary Actions and other Planning Considerations

As discussed in Chapter I, the City of Oakland is the Lead Agency responsible for preparation of this SEIR (pursuant to CEQA Guidelines Section 15051). This SEIR is intended to be used for all required discretionary actions required for the Project Modifications by the City Council. In addition, the Project Modifications require review and approval by a number of other public agencies and jurisdictions that have authority over specific aspects of the project. These other agencies may also consider this SEIR in their review and decision-making processes. The discretionary actions and other approvals anticipated to be required for the Project Modifications include the following list, without limitation.

III.F.1 City of Oakland

- **General Plan Amendment** Amend the Maximum Intensity Section of the Planned Waterfront Development (PWD-4) classification to permit up to 3,700 units at a maximum average density of 58 dwelling units per gross acre and 167 units over 22 net developable acres.
- **Zoning Code Amendment** (Oakland Planning Code Chapter 17.101B) – Amend the Maximum Density Section of the Planned Waterfront Zoning District (PWD-4) to permit up to 3,700 at a maximum average density of 58 units per gross acre and 167 units over 22 net developable acres and conform the Parking and Loading Requirements to be consistent with the City of Oakland Zoning Code downtown off-street parking provisions.
- **Preliminary Development Plan** - Amend the Preliminary Development Plan to increase the number of permissible boating slips to 325 slips and to allow a maximum of 3,700 residential units and to make other changes required to accommodate the modifications to the Approved Project.
- **Final Development Plan** - Approve an FDP for parcels on Phases III and IV and for the design of the marina consistent with the Modifications to the Project.
- **Development Agreement Amendment** (Oakland Planning Code Chapter 17.138) - Amend the Development Agreement to 1) vest an additional 600 units; 2) extend the term of Agreement to 2038 for Parcels K, L and M; 3) recognize the allocation of existing and additional units across parcels; and 4) modify agreements regarding local hiring, job training assistance; 5) create an affordable housing endowment.

- **Conditional Use Permit** (Oakland Planning Code Chapter 17.101B) - to permit a marina use within the OS (RSP) zoning district
- **Tentative Tract Maps** Approval of new Condominium Maps, as appropriate, to permit the reallocation of condominium units between parcels.
- **Other Various Construction-Related Permits** (Oakland Municipal Code Title 15) - The project would require City approval of all other permits required for project construction on the Project site.
- **PUD Design Guidelines** (Oakland Planning Code Chapter 17.101B) - Amendments to reflect the additional tower zone in Parcel L or M.

III.F.2 Other Agencies and Considerations

- **Port of Oakland** (Oakland City Charter, Article VII) - The Project Modifications would be subject to approval by the Port of Oakland for various real estate transaction components of the project.
- **San Francisco Bay Conservation and Development Commission (BCDC)** - The Project Modifications would be subject to review by the BCDC, a state agency. The Project Applicant would be required to obtain BCDC permits and approvals for all development proposed within the Agency's jurisdiction, including the placement of solid and floating fill associated with the marina construction and dredging, if required.
- **California Department of Toxic Substances Control (DTSC)** – The California Department of Toxic Substances Control (DTSC) would have lead oversight responsibility for investigation and remediation of hazardous materials at the site, including approval of the proposed remediation plan. DTSC would coordinate with the California State Water Resources Control Board (discussed below) on site clean-up requirements and processes. In coordination with the U.S. Army Corps of Engineers (discussed below), DTSC would also provide oversight of dredging activities, if required.
- **California State Water Resources Control Board – San Francisco Region (RWQCB)** - The Project Modifications would require various RWQCB reviews and approvals regarding the placement of solid and floating fill material associated with the marina construction and in coordination with BCDC and the U.S. Army Corps of Engineers (discussed below), as well as related to the dredging of Clinton Basin, if required.
- **The United States Army Corps, of Engineers (USACE)** - The Project Modifications would involve navigable U.S. waters and therefore would require USACE's review and approval of permits for the placement of solid and floating fill associated with the construction of the marina improvements and the dredging of Clinton Basin, if required.
- **The United States Fish and Wildlife Service (USFWS)** - The Project Modifications would be subject to U.S. Fish and Wildlife review and permitting related to potential impacts of the Project Modifications (proposed shoreline activities and alterations) on federally listed threatened or endangered species protected under the Federal Endangered Species Act.
- **California Department of Fish and Wildlife (CDFW)** - The Project Modifications would be subject to Department of Fish and Wildlife review and permitting related to potential impacts of the project (proposed shoreline activities and alterations) on species protected under the California Endangered Species Act.

- **Bay Area Air Quality Management District (BAAQMD)** – The Project Modifications would be subject to applicable regulations of the BAAQMD, such as construction emissions reduction measures that are imposed by the City.
- **East Bay Municipal Utility District (EBMUD)** - The Project Modifications would require EBMUD review and approvals regarding water service, capacities, and facilities.

III.G References

- California Environmental Protection Agency (CalEPA), 2019. Cortese List Data Resources. Available at: <http://www.calepa.ca.gov/sitecleanup/corteselist/>. Accessed September 4, 2019.
- City of Oakland, 2005. *Oak to Ninth Avenue Project Draft EIR*, State Clearinghouse No. 2004062013, August 2005.
- , 2006a. *Oak to Ninth Avenue Project, 2006 Addendum #1 to the Certified Environmental Impact Report*, State Clearinghouse No. 2004062013, June 7, 2006.
- , 2006b. *Oak to Ninth Avenue Project Final EIR*, State Clearinghouse No. 2004062013, August 2006.
- , 2008a. *Revisions to the Analysis in the Oak to Ninth Project EIR (SCH. No. 2004062013) Prepared to Comply with the Alameda County Superior Court Order Case No. RG06-280345 and Case No. RG06-280471*, November 2008.
- , 2008b. *Oak to Ninth Avenue Project Responses to Comments on the Revisions*, State Clearinghouse No. 2004062013, December 2008.
- , 2009. Resolution No. 81769 C.M.S., approved January 20, 2009.
- , 2013. *Central Estuary Area Plan*. April 5, 2013.
- , 2019. Brooklyn Basin Project (Formerly "Oak to Ninth Mixed Use Development"). Available at: <http://www2.oaklandnet.com/government/o/PBN/OurOrganization/Planning/Zoning/DOWD008409>. Accessed October 11, 2019.
- Zarsion-OHP 1, LLC, 2019. *Modification to Brooklyn Basin Project Description, Proposed Increase in Residential Density and Expansion of Marina*, 2019.

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CHAPTER IV

Environmental Setting, Impacts, Standard Conditions of Approval, and Mitigation Measures

This Draft Supplemental Environmental Impact Report (SEIR) has been prepared in accordance with CEQA (Public Resources Code Section 21000, et seq.), and the CEQA Guidelines (California Code of Regulations Sections 15000, et seq.). This SEIR is also prepared in accordance with Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 and 15163. This SEIR supplements the 2009 EIR prepared for the Oak to Ninth Avenue Project (which is now called Brooklyn Basin).¹

This chapter introduces basic assumptions, approaches, formats and protocols pertinent to the review of the environmental analysis to follow. Described are the environmental topics addressed; the format of impact statements and mitigation measures; the application of CEQA thresholds/significance criteria and the City's Standard Conditions of Approval (SCA); and the relationship of the thresholds/significance criteria and SCAs. This chapter also discusses the environmental baseline and cumulative analysis applied herein.²

Following this introduction, this chapter includes Sections (IV.A through IV.N) presenting analysis of whether the Project Modifications for each environmental topic considered under CEQA would result in the Project having any new or substantially more significant impacts than discussed in the 2009 EIR. Specifically, each environmental topic section describes the environmental and regulatory setting (*Setting*), which includes updates to the current physical and regulatory conditions since preparation of the 2009 EIR, and the environmental impacts of the Project Modifications (*Impacts and Mitigation Measures*). The analyses identify environmental impacts (project and cumulative conditions before and after implementation of 2009 EIR mitigation measures), applicable SCAs, and, if necessary, new mitigation measures that after implementation would reduce or eliminate significant impacts of the Project Modifications. The applicable CEQA thresholds/criteria to assess CEQA significance for each environmental topic

¹ For the purpose of this Supplemental EIR (SEIR) analysis, the 2009 EIR is comprised of the following documents: *Oak to Ninth Avenue Project Draft EIR*, August 2005; *Oak to Ninth Avenue Project, 2006 Addendum #1 to the Certified Environmental Impact Report*, June 7, 2006; *Oak to Ninth Avenue Project Final EIR*, August 2006; *Revisions to the Analysis in the Oak to Ninth Project EIR (SCH. No. 2004062013) Prepared to Comply with the Alameda County Superior Court Order Case No. RG06-280345 and Case No. RG06-280471*, November 2008; *Oak to Ninth Avenue Project Responses to Comments on the Revisions*, December 2008; and City of Oakland Resolution No. 81769 C.M.S., approved January 20, 2009.

² The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards (SCAs)* in 2008, and they have since been amended and revised several times. A revised set of SCAs was recently published by the City of Oakland in December, 2020.

are identified, and any changes since preparation of the 2009 EIR that affect the analysis and environmental conclusions about the Project are discussed in this SEIR.

Because this is an SEIR, each section discusses for each significance criteria, whether any of the conditions described in Public Resources Code Section 21166 and CEQA Guidelines Section 15162 and 15163 with respect to any changed circumstances, significant new information or project changes relative to findings in 2009 EIR, exist.

Environmental Topics

This chapter analyzes the environmental topics listed below:

IV.A Land Use, Plans, and Policies	IV.H Hazards and Hazardous Materials
IV.B Transportation and Circulation	IV.I Biological Resources
IV.C Air Quality	IV.J Population and Housing
IV.D Hydrology and Water Quality	IV.K Aesthetics, Shadow, and Wind
IV.E Cultural and Tribal Cultural Resources	IV.L Public Services and Recreation
IV.F Geology and Soils	IV.M Utilities and Service Systems
IV.G Noise and Vibration	IV.N Greenhouse Gas Emissions

Due to the Project site's location in an existing urbanized setting, Agricultural Resources, Mineral Resources, and Wildfires were determined not to be directly relevant to the Project Modifications and are briefly discussed in Chapter VI, *Impact Overview and Growth Inducement*, under Section VI.D, *Effects Found Not to Be Significant*.

Focus of SEIR Analysis

As discussed in Chapter I, *Introduction*, and mentioned above, the analysis in this SEIR focuses on the activities associated with the Project Modifications. This approach is taken because CEQA review has already occurred in the 2009 EIR for the Approved Project, including identification of environmental effects, feasible mitigation measures, and feasible alternatives. As disclosed in this SEIR, (1) the Project Modifications would not result in substantial changes to the Approved Project's onshore construction-related activity, circulation plan, or requirements for building envelopes and setbacks as approved in the 2009 EIR; (2) no significant changes to the existing circumstances surrounding the Approved Project have occurred; and (3) the Project Modifications are not significant and do not involve any new impacts or trigger the criteria of "changed circumstances" or "new information" in Section 15162. This SEIR is a supplement to the 2009 EIR and incorporates the information necessary to make the 2009 EIR adequate for the Project Modifications, in accordance with CEQA Guidelines Section 15163.

Format of Environmental Topic Sections, Impact Statements and Mitigation Measures

Environmental Topic Sections

Each environmental topic section generally includes three main subsections:

- *Environmental Setting*, which describes relevant changes to the baseline conditions at the Project site since preparation of the 2009 EIR, and as of the NOP in September 2018;
- *Regulatory Setting*, which addresses any relevant updates to the federal, state and local plans, policies, and regulations since preparation of the 2009 EIR; and
- *Impacts and Mitigation Measures*, which identifies thresholds/significance criteria, discusses potential impacts, cites applicable SCAs and 2009 Mitigation Measures, and describes any new mitigation measures that would, to the extent possible, reduce or eliminate adverse impacts identified in this chapter. A discussion of how each impact and mitigation relates to the analysis and findings in the 2009 EIR is also included within the *Impacts and Mitigation Measures* sections of this chapter.

Impact Statements and Mitigation Measures

All impact statements are presented in bold text. All impacts are identified with an abbreviated designation that corresponds to the environmental topic addressed (e.g., “NOI” for noise), and then include a cross reference to the significance criterion for which the impact analysis applies. The impact classification (discussed below) of the Project Modification’s effects, with implementation of the City’s SCAs and mitigation measures, is stated in parentheses immediately following the bold-text impact statement.

Thresholds/Criteria of Significance

The City of Oakland has established local *CEQA Thresholds of Significance Guidelines* (commonly referred to as “thresholds”), which have been in general use by the City since at least 2002, parts of which were most recently updated in October 2016. The thresholds are intended to help clarify and standardize analysis and decision-making in the environmental review process in the City of Oakland. The thresholds are offered as guidance in preparing all environmental review documents and are intended to implement and supplement provisions in the CEQA Guidelines for determining the significance of environmental effects, including Sections 15064, 15064.4, 15064.5, 15065, 15382 and Appendix G. (The classifications of environmental impact or significance in this SEIR are described below.) The thresholds are used to evaluate the potential primary and secondary environmental effects of the Project Modifications, including potential effects of mitigation measures.

Revisions to Appendix G of the State CEQA Guidelines became effective December 28, 2018, and were intended to reflect recent changes to the CEQA statutes and court decisions. Many of these recent changes and decisions are already reflected in the City’s adopted thresholds, which

have been used to determine the significance of potential impacts in this SEIR. Where specific changes made to Appendix G are relevant and material, they are discussed within the applicable technical analysis section in this chapter.

In some instances, thresholds/significance criteria that applied at the time the 2009 EIR was prepared are no longer applicable in this SEIR due to changes to CEQA Guidelines or the City's approach to the CEQA analysis. Similarly, as discussed below, there are a number of new thresholds/significance criteria that did not exist at the time the 2009 EIR was prepared or that have been updated or refined since that time and are newly applied to the analysis of the Project Modifications in this SEIR. New thresholds/significance criteria are not necessarily significant new information. (*Concerned Dublin Citizens v. City of Dublin* (2013) 214 Cal.App.4th 1301, 1320.) The SEIR applies new thresholds/significance criteria where appropriate, even when they do not reflect significant changes in circumstances or significant new information.

As warranted to reflect current City requirements and for overall conformance with current standards and practices and this SEIR, impacts from the 2009 EIR have been incorporated by reference and are considered in the context of the Project Modification's impacts, following the bolded heading "Comparison to 2009 EIR." These comparisons draw a connection to the current impact and the previously considered impact statement.

Standard Conditions of Approval and Uniformly Applied Development Standards

The City of Oakland's Standard Conditions of Approval (SCAs) were adopted on November 3, 2008 (Ordinance No. 12899 C.M.S) and revised through January 24, 2020, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183 (and now Section 15183.3). The SCAs address three aspects of a project: (1) general administrative aspects of the project approval; (2) environmental protection measures that are incorporated into a project and designed to, and will, substantially mitigate environmental effects; and (3) other SCAs containing requirements to substantially reduce non-environmental effects of a project.

In reviewing individual project applications, the City determines which SCAs are applied, based upon the specific characteristics of the project type and/or project site and the zoning district, community plan, the type(s) of permit(s)/approval(s) required for the project. For example, SCAs related to creek protection permits will only be applied to projects on or near creekside properties.

All relevant SCAs have been incorporated as part of the analysis for the Project Modifications. SCAs are mandatory City requirements. For this reason, the applicable SCAs that reduce environmental impacts are considered requirements of the Project Modifications imposed under the City's regulatory authority and are not mitigation measures. If compliance with an SCA would reduce a potentially significant impact to less than significant, the impact is determined to be less than significant and no mitigation is imposed. SCAs are not listed as mitigation measures.

The SCAs incorporate development policies and standards from various adopted plans, policies, and ordinances (such as the Oakland Planning and other Municipal Codes, Oakland Creek

Protection, Stormwater Management and Discharge Control Ordinance, Oakland Tree Protection Ordinance, Oakland Grading Regulations, National Pollutant Discharge Elimination System [NPDES] permit requirements, Oakland Housing Element, California Building Code, and Uniform Fire Code, et al.), which have been found to substantially mitigate environmental effects.

Relationship of Standard Conditions of Approval to Previous Impacts and Mitigation Measures

As discussed above, a project must comply with the SCAs and therefore SCAs are not mitigation. This is the established approach that the City currently applies to its CEQA analyses, but the SCAs were not adopted when the 2009 EIR was prepared. Therefore, in certain cases, a mitigation measure identified in the 2009 EIR to reduce a potentially significant impact imposes requirements that are consistent with a current City of Oakland SCA that may also reduce the same potentially significant impact to less than significant. In most cases, the SCA is more detailed and comprehensive than the 2009 Mitigation Measures. As a result, where SCAs would substantially mitigate environmental effects of the Project Modifications, these SCAs are considered requirements of the Project Modifications imposed under the City's regulatory authority and related 2009 Mitigation Measures would not apply. Where the City's SCA's are generally consistent with and/or substantially expand the provisions of previously-identified mitigation measures, none of these changes are due to the involvement of changed circumstances or environmental impacts or changes to the Approved Project.

Impact Classifications

The following level of significance classifications are used throughout the impact analysis in this SEIR, and are consistent with those used in the 2009 EIR:

- **Less than Significant (LS)** – The impacts of the proposed project, either before or after implementation of SCA and/or feasible mitigation measures, do not reach or exceed the defined threshold/criteria of significance. Generally, no mitigation measure is required for a LS impact.
- **Less than Significant with Mitigation (SM)** – The impact of the proposed project is expected to reach or exceed the defined threshold/criteria of significance. Feasible mitigation measures and/or SCA may or may not be identified to reduce the significant impact to a less than significant level.
- **Significant Unavoidable (SU)** – The impact of the proposed project reaches or exceeds the defined threshold/criteria of significance. No feasible mitigation measure is available to reduce the S impact to LS. In these cases, feasible mitigation measures are identified to reduce the S impact to the maximum feasible extent, and the significant impact is considered SU. Impacts are also classified as SU if a feasible mitigation measure is identified that would reduce the impact to LS, but the approval and/or implementation of the mitigation measure is not within the City of Oakland's or the Project Applicant's sole control, in which case the analysis cannot presume implementation of the mitigation measure and the resulting LS impact. It is important to clarify that SU is an impact classification that only applies *after* consideration of possible mitigation measures.
- **No Impact (N)** – No noticeable adverse effect on the environment would occur.

Comparison of Impacts and Conclusions to the 2009 EIR

As previously stated above and in Chapter I, *Introduction*, this SEIR addresses the physical and environmental effects of the Project Modifications. For each environmental impact, the SEIR determines whether the Project Modifications would create new or substantially more significant impacts as compared to the impact conclusion in the 2009 EIR.

The “project changes” (i.e., the Project Modifications) to the Approved Project are not generally substantial changes that will require major revisions of the 2009 EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. However, the marina expansion triggers the need for new biological mitigation measures that are different from those in the 2009 EIR. The changes in the circumstances under which the project would be taken, including changes in existing conditions, are not substantial changes that will require major revisions of the 2009 EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. The SEIR also does not identify significant new information as further defined in Section 15162. The SEIR also identifies impacts included in the 2009 EIR that are not applicable to the Project Modifications (see discussion under *Thresholds/Criteria of Significance*, above).

Environmental Baseline

Overall, pursuant to Section 15125(a) of the CEQA Guidelines, this SEIR measures the physical impacts of the Project Modifications against a “baseline” of physical environmental conditions at and near the Project site. Pursuant to Public Resources Code 21166, once an EIR has been certified, further CEQA review is limited whether or not the project has been constructed. Consistent with CEQA guidance, the SEIR is required to evaluate only the changes in the project, circumstances, or new information that led to the preparation of the SEIR as compared to that contained in the 2009 EIR for the Approved Project. This SEIR focuses on the potential impacts of the Project Modifications and additions/changes necessary to disclose environmental impacts from the Project Modifications that were not analyzed in the 2009 or would be substantially more severe than anticipated by the 2009 EIR. This SEIR evaluates the Project Modifications using the City’s current methodology, significance criteria, and thresholds. The analysis relies on the environmental baseline, which is the physical circumstances existing at the time the NOP was published in September 2018, and also compares the Project Modification to the Approved Project to determine if the modifications create any new or substantially more severe impacts on the environment. This SEIR discusses new City requirements and analysis methods established since preparation of the 2009 EIR, such as the incorporation of the City’s SCAs, which would be required conditions of approval for the Project Modifications.

Cumulative Analysis

Approach to the Cumulative Analysis

In accordance with CEQA and the City of Oakland's thresholds, this SEIR includes a cumulative analysis to evaluate whether the Project Modifications' incremental effect is cumulatively considerable when combined with other projects causing related impacts. CEQA defines cumulative as "two or more individual effects which, when considered together, are considerable, or which can compound or increase other environmental impacts." If a cumulative effect is identified, the analysis then evaluates whether the Project Modifications' contribution to the cumulative effect is *cumulatively considerable*, which is a significant impact. Specifically, a "cumulatively considerable" contribution means that the incremental effects of an individual project are significant when viewed in connection with the effects of past, present, existing, approved, pending and reasonably foreseeable future projects. These impacts can result from a combination of the proposed project together with other projects causing related impacts.

Cumulative Context

The context used for assessing cumulative impacts typically varies depending on the specific topic being analyzed to reflect the different geographic scope of different impact areas. For example, considerations for the cumulative air quality analysis are different from those used for the cumulative analysis of aesthetics. In assessing aesthetic impacts, only development within the vicinity of the project would contribute to a cumulative visual effect. In assessing air quality impacts, on the other hand, all development within the air basin contributes to regional emissions of criteria pollutants, and basin-wide projections of emissions is the best tool for determining the cumulative effect. Accordingly, the geographic setting and other parameters of each cumulative analysis discussion can vary and are set forth in each analysis section.

Cumulative development in this SEIR is generally established using the City of Oakland's Major Projects list dated June 2020, together with past, present, existing, approved, pending and reasonably foreseeable future projects (summarized consistently in the cumulative analyses in this SEIR as "past, present, and reasonably foreseeable") within and beyond the Project site. Note the Major Projects List does not include the totality of the Approved Project, but because this is an SEIR, the Approved Project is assumed to exist.

As discussed above, cumulative projects considered in the cumulative context can vary by environmental topic; therefore, some of the Major Projects listed, or other cumulative development, may not be directly relevant to the cumulative context, depending on the environmental topic. In some cases, the cumulative context may include more development than listed in the Major Projects list. A primary example is the transportation analyses (and transportation-related traffic and air quality), which use the Alameda County Congestion Management Program travel demand model (the Countywide Travel Demand Model), which reflects traffic from projects citywide and the broader regional context (refer to Appendix C). Alternatively, geology and soils cumulative impact analysis would primarily consider projects that are more localized or even site-specific, which may not, for example, include all projects on

the list that are located in distant Oakland areas. The cumulative discussions in each topical section throughout this chapter describe the cumulative context considered for each topic.

IV.A Land Use, Plans, and Policies

This section presents an analysis of potential impacts related to land use, plans, and policies that would result from the Project Modifications described in Chapter III, *Project Description*. The affected environment, regulatory setting, and analysis from the 2009 EIR are relied on to the extent relevant in this Supplemental EIR (SEIR), and are discussed to the extent that they differ from those described in the 2009 EIR. This section analyzes the direct, indirect, and cumulative effects of the Project Modifications; provides modifications (additions, deletions, updates, or other revisions), as needed, to the approved mitigation measures provided in the adopted Final EIR MMRP; and identifies any residual effects that may remain following the implementation of such measures and compares these effects to the conclusions about effects in the 2009 EIR.

IV.A.1 Environmental Setting

The Project Modifications would be developed on the same Project site as the Approved Project, though expanded by approximately 10 acres of water surface to accommodate the expanded marina. As described in Chapter III, *Project Description*, since preparation of the 2009 EIR, there has been substantial and on-going construction of the Approved Project. At the time of the NOP (September 2018), Phase I on-and off-site improvements were constructed. In addition, Phase I park and open space improvements and development on Parcel B were under construction. Final Development Permits (FDPs) for Affordable Housing on Parcels F and A, FDPs for Parcels C and G, and an FDP for Phase II through IV park and open space improvements had been approved. Since publication of the NOP, additional FDPs for Phase I and II parcels have been submitted and development proposals for all sites within those phases are either under review, approved, under construction, or operational (see Chapter III, *Project Description*). There have been no changes to surrounding land uses or zoning since 2009 that are relevant to this SEIR land use analysis.

IV.A.2 Regulatory Setting

Since the preparation of the 2009 EIR, there have been no relevant changes to the regulatory setting with respect to the following: Public Trust Doctrine, Bay Conservation and Development Commission's (BCDC) Bay Plan, Open Space, Conservation, and Recreation Element (adopted June 11, 1996), and the Estuary Policy Plan (adopted June 8, 1999 as an element of the General Plan). These policies are addressed in the 2009 EIR and are incorporated by reference.¹ Plans and policies applicable to the Project Modifications, including relevant updates since preparation of the 2009 EIR, are presented below followed by a discussion of the overall consistency (or inconsistency) with each.²

¹ For a complete description related to these incorporated policies, refer to Section IV.A and Appendix E of the 2005 Draft EIR.

² Updates to the Alameda County Flood Insurance Rate Map are described and analyzed in Section IV.D, *Hydrology and Water Quality*.

Regional

Plan Bay Area 2040

As required by Senate Bill 375, all metropolitan regions in California must complete a Sustainable Communities Strategy (SCS) as part of a Regional Transportation Plan. In the Bay Area, the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) are jointly responsible for developing and adopting a SCS that integrates transportation, land use, and housing to meet greenhouse gas reduction targets set by the California Air Resources Board. The *Plan Bay Area 2040*, adopted in 2017, serves as the SCS for the Bay Area, per Senate Bill 375. As defined by the Plan, Priority Development Areas (PDAs) are areas where new development will support the needs of residents and workers in a pedestrian-friendly environment served by transit.

Project Consistency with Plan Bay Area Policies

The Project Modification would include 600 additional housing units on a site that is partially located within the “Oakland Downtown & Jack London Square” PDA and the “San Antonio & Central Estuary” PDA. By providing more housing within identified PDAs the Project Modifications support the objectives of the plan and SCS.

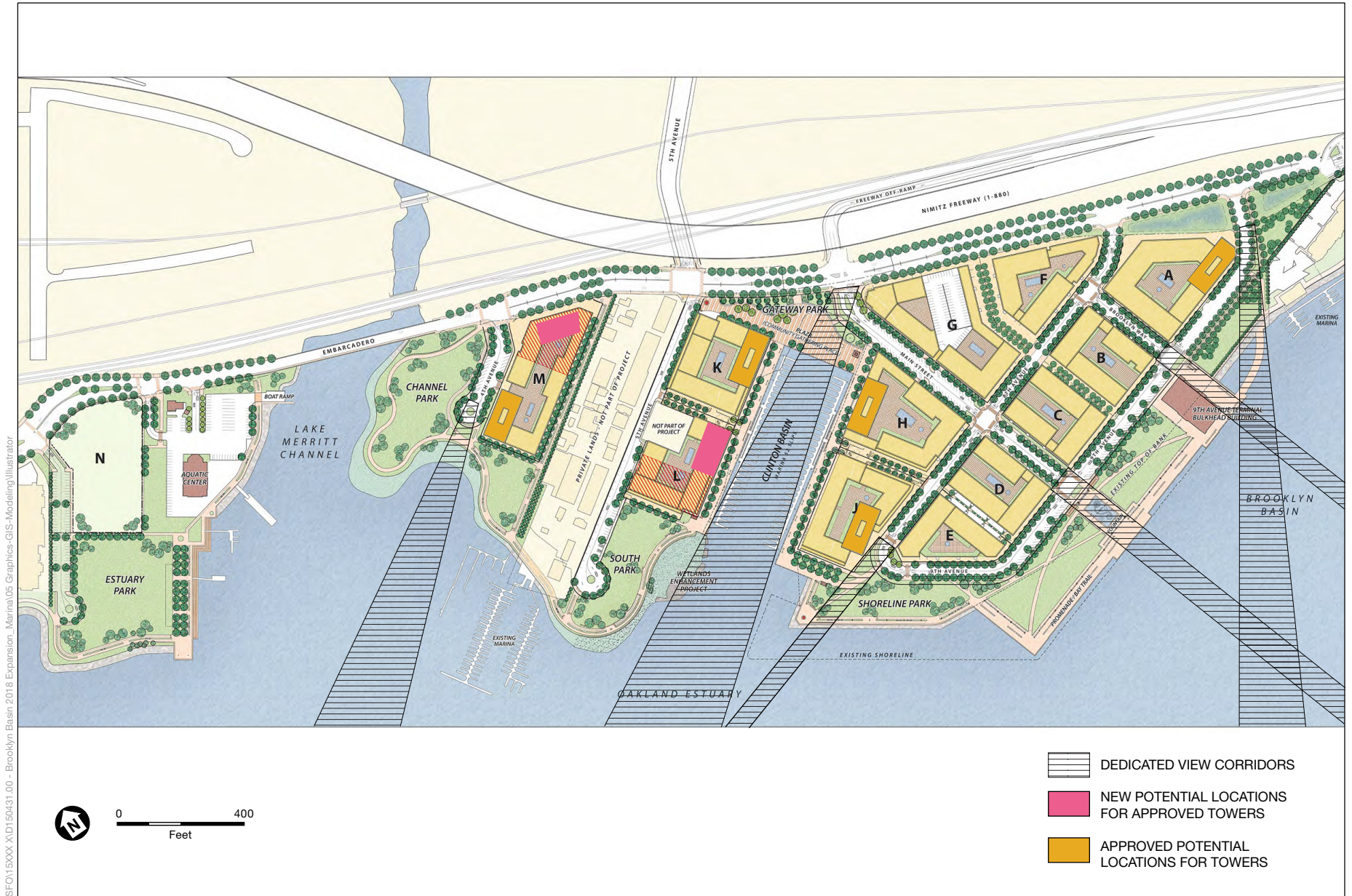
San Francisco Bay Plan and San Francisco Bay Area Seaport Plan

Portions of the Project site lie within a 100-foot “shoreline band” that surrounds San Francisco Bay and that is under the jurisdiction of the San Francisco BCDC.³ As addressed in the 2009 EIR, BCDC ensures that development within the shoreline band is consistent with the *San Francisco Bay Plan* (Bay Plan) and the *San Francisco Bay Area Seaport Plan* (Seaport Plan). The McAteer-Petris Act, established by BCDC, and the Bay Plan are an exercise of authority by the state legislature over public trust lands and establish policies for meeting public trust needs (see *California State Lands Commission, Public Trust Doctrine*, below).

Project Consistency with Bay Plan Policies

In April 2005, BCDC’s Design Review Board identified three primary focuses for review of the Approved Project: (1) adequate, usable, and attractive public access; (2) project appearance, design, and scenic views; and (3) the necessity of bay fill (BCDC, 2005). In 2011, the BCDC granted a permit for the Approved Project, and in 2018, the BCDC approved amendments to that permit (BCDC, 2018). A condition of the permit is to maintain no fewer than six dedicated view corridors to ensure views of the bay from the Embarcadero and other public areas (see **Figure IV.A-1**). Recorded subdivision maps for Phases I and II have reserved public right of way and public trust easements on the streets that serve as view corridors.

³ The “shoreline band” consists of all territory located between the shoreline of the Bay and a line 100 feet landward of and parallel with that line....” This generally includes tidelands, which are lands lying between mean high tide and mean low tide, and marshlands lying between mean high tide and five feet above mean sea level (BCDC, 2015).



SOURCE: ROMA Design Group, 2019; San Francisco Bay Conservation and Development Commission Permit No. 2006.007.02

Brooklyn Basin Marina Expansion Project

Figure IV.A-1
Dedicated View Corridors

The Project Modifications would potentially change the location of one of the five approved tower designations from either Parcel H or J to either Parcel L or M, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV. This change would not increase the total number of towers on the overall Project site. As shown in Figure IV.A-1, the new potential tower locations would not obstruct protected views to the Bay. While paddleboards, kayaks, and boats stored in the expanded marina could be privately owned, the marina and support services would not limit or obstruct public access to the Approved Project's open spaces, including along the Shoreline Park waterfront. The Project Modifications would not alter any other aspect of the onshore development as approved in the 2009 EIR. As such, the Project Modifications would not alter the features of the Approved Project ensuring consistency with Bay Plan policies that encourage increased waterfront open space accessible to the public, encourage new recreational facilities (trails, walkways, etc.) along the shoreline, and direct the configuring of high-density waterfront housing and new streets to maintain and provide good views to the Bay. Specifically, the Project Modifications would be consistent with the following Bay Plan and Seaport Plan policies: Plan Water Quality Policies 3 and 7, as well as with Recreation In and Around the Bay Policy 5a, and Public Access Policy 2, Appearance, Design, and Scenic Views Policies 2 and 14, and, Other Bay and Shoreline Uses Policy 3. These features are also addressed below in the City of Oakland General Plan Land Use and Transportation Element (LUTE) and Estuary Policy Plan consistency discussions.

Potential impacts of the Project Modifications' marina expansion related to views is analyzed in Section IV.K, *Aesthetics, Shadow, and Wind*. The Project Modifications' potential impacts related to biological resources and water quality are also fully analyzed in SEIR sections IV.D, *Hydrology and Water Quality*, and IV.I, *Biological Resources*.

San Francisco Bay Trail Plan / Oakland Waterfront Promenade and Bay Trail Alignment Feasibility Study and Design Standards

As addressed in the 2009 EIR, in July 1989, ABAG adopted the *San Francisco Bay Trail Plan* for the development of a regional hiking and bicycling trail around the perimeter of San Francisco and San Pablo Bays. Generally consistent with the overall policies and design guidelines in the Bay Trail Plan, the City of Oakland has coordinated a process to develop the *Oakland Waterfront Promenade/Bay Trail Alignment Feasibility Study and Design Guidelines*. There have been no changes to these standards since preparation of the 2009 EIR.

Project Consistency with San Francisco Bay Trail Plan Policies

The Project Modifications do not include changes to the design of the Approved Project's access to parks, open spaces, and trails or to the Approved Project's proposed Bay Trail improvements. Therefore, as with the Approved Project, the Project Modifications would be consistent with the *San Francisco Bay Trail Plan*.

California State Lands Commission, Public Trust Doctrine

As addressed in the 2009 EIR, the Project site is subject to the Tidelands Trust (Project Lands). Portions of the Project site were granted to the City pursuant to legislative grants from the state of California (Project Granted Land) and the Oak Street to 9th Avenue District Exchange Act

(Senate Bill [SB] 1622). SB 1622 also authorizes the California State Lands Commission and the Port of Oakland to enter into an exchange agreement meeting the requirements of the legislation to effectuate the exchange and sale. The Approved Project was conditioned upon subsequent compliance with the provisions of SB 1622.

Project Consistency with the Public Trust Doctrine

Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would not alter the Approved Project's on-shore project site and thus would remain consistent with the Public Trust Doctrine.

Local Plans, Ordinances and Policies

The Project site's land use designation is Estuary Policy Plan "Planned Waterfront Development 4" (PWD-4) and the zoning district is Planned Waterfront District 4 (PWD-4) (as of the NOP publication in September 2018). The PWD-4 land use designation includes specific regulations to facilitate the development of an integrated mixed-use community with both public and private open space, and establishes the following goals:

- A. Encourage the creation of a mixed-use district that integrates a combination of residential, commercial, public open space and civic uses.
- B. Establish development standards that allow residential, commercial, public open space and civic activities to compatibly co-exist.
- C. Provide a balance of private development and public open space with convenient access to public open space and the waterfront.
- D. Improve access to the waterfront and recreational opportunities along the waterfront including boat launches and marinas.
- E. Encourage quality and variety in building and landscape design as well as compatibility in use and form.
- F. Encourage development that is respectful of the environmental qualities that the site has to offer.

City of Oakland General Plan

The Oakland General Plan (General Plan) establishes comprehensive, long-term land use policies for the City and provides the primary policy direction for development throughout the City and therefore the Project site. The General Plan is made up of a series of "elements," each of which deals with a particular topic and includes policies, many of which guide development citywide. The Oakland General Plan includes the Land Use and Transportation Element (LUTE) (adopted March 24, 1998), including the Bicycle Master Plan (December 2007) and the Pedestrian Master Plan (December 2007, updated June 2017), which are adopted as part of the LUTE; the Estuary Policy Plan (June 1999); the Open Space, Conservation, and Recreation Element (OSCAR) Element (adopted June 11, 1996); the Historic Preservation Element (adopted March 8, 1994 and amended July 21, 1998); the 2015-2023 Housing Element Update (December 9, 2014); the Noise

Element (June 21, 2005); the Safety Element (November 2004, amended 2012); and the Scenic Highways Plan (1974).

Land Use and Transportation Element (LUTE)

Several text addenda have been made to the LUTE since adoption in 1998. Apart from changes related to the Bicycle Master Plan and Pedestrian Master Plan, the applicable policies related to waterfront (W) transportation, transit-oriented development (T), and neighborhoods (N) are listed in Appendix F of the 2005 DEIR, were addressed in the 2009 EIR, and remain relevant and unchanged.

Project Consistency with LUTE Policies

Land Use and Compatibility with Adjacent Uses. The 2009 EIR concluded that the Approved Project would not conflict with the adjacent Jack London Square neighborhood in terms of overall development square footage, building mass and heights, and intensity of use. While the Project Modifications would increase the intensity of approved land uses by increasing the allowable units from 3100 to 3700, they would be consistent with the LUTE objectives for the natural and built environment (W3); mixed use the waterfront’s unique character (W9); economy (W11); mixed use and housing (W12); housing production, conservation and enhancement (N3); and location of urban density and mixed use housing near transit, Downtown, waterfront, and underutilized properties (N8).

With increased density, the Modified Project would be “larger” than Jack London Square with respect to overall development square footage, building mass, and heights, consistent with the 2009 EIR findings.⁴ However, as described in the 2009 EIR, the Approved Project was ultimately considered to be of “lower intensity” than Jack London Square considering the difference in proposed land uses. While the Approved Project would likely be more prominent in terms of physical development, Jack London Square, as revised in 2014, would include more intensive use activity, particularly for daytime office and evening entertainment uses. The increased residential density, expanded marina, and addition of on-site water taxi operations associated with the Project Modifications would result in a slight increase in land use intensity on the Project site and would be in keeping with the Approved Project’s land uses. Therefore, the Project Modifications would be consistent with LUTE policies related to comparative land use intensity with Jack London Square (Policies W9.5 and W11.3). The increased number of units would support the policy for prioritizing infill housing (Policies N3.1 and N3.2).

The 2009 EIR concluded that the Approved Project would preserve existing views of open spaces and the water’s edge from locations close to or within the Project site, and would provide additional and expanded views of open spaces and the Estuary from onsite and offsite locations (Policies W3.4 and W11.6). The new marina expansion under the Project Modifications would add in-water

⁴ As approved in 2004, the Jack London Square Redevelopment Project would develop approximately 960,770 net new gross square feet (gsf) of office, retail and restaurant space, hotel, conference/banquet space, theatre, and supermarket uses as well as associated parking. Building heights would range from 58 to 175 feet tall. In 2014, the City of Oakland approved the 2006 Addendum to the 2004 EIR, permitting up to 665 residential units in two towers with heights up to 193- and 293-feet tall (City of Oakland, 2014a and 2014b). The 2014 Modified Project would still include up to 621,700 square feet of commercial uses on the project site.

infrastructure along the east side of South Park, along the south and east of Shoreline Park and extending north to the Ninth Avenue Terminal building, resulting in marina infrastructure along the entire shoreline of the peninsula containing Phases I and II. Policy W9.3 calls for development to be designed to avoid the feeling of ‘gated’ or private communities. While paddleboards, kayaks, and boats stored in the expanded marina could be privately owned and would not be publicly accessible, the marina and support services would not limit or obstruct public access to the Approved Project’s open spaces, including Shoreline Park, or views of these open spaces. As described and simulated in Section IV.K, *Aesthetics, Shadow, and Wind*, the expanded marina would be visible from within the Project site, including all along Shoreline Park, as well as from the surrounding locations to the east and south across the Estuary. Policy W3.4 specifically calls for visual access of the waterfront and its activities and Policy W11.2 defines a marina and support services as an appropriate land use in the Ninth Avenue Terminal area. Although the expanded marina would alter views of the open water, as an appropriate use associated with waterfront activities, a marina is considered to be consistent with Policies W3.4 and W11.2. Viewsheds and impacts to viewsheds are addressed further under Section IV.K, *Aesthetics, Shadow, and Wind*.

The Project Modifications would not include changes to the location, design or onshore site plan of the Approved Project nor to the Approved Project’s access to parks, open spaces, and trails. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would be developed on the same onshore project site with the same mix of land uses as the Approved Project. Therefore, the Approved Project’s consistency with related policies remains valid for the Project Modifications (Objectives W9 and N.8 including Policies W9.1, W9.2, W9.3, W9.7, W9.8, W10.6, W11.4, W11.5, and W11.6).

Similarly, even though the Project Modifications would potentially change the location of one tower to Parcel L or M, with the possible result of constructing two towers on Parcel M and increased building mass in Phase III or IV, as with the Approved Project, there would be suitable distance between the Project site and adjacent buildings to provide adequate step down space for the visual quality of building heights. With respect to the Project Modifications proposal to revise the required residential parking ratios, while the total number of spaces would be reduced, the Project Modifications would comply with current city codes in other zoning districts to ensure there remains an overall adequate amount. To the extent that the Project Modifications would pose any adverse environmental impacts on adjacent or nearby communities, these physical impacts and mitigation measures to reduce these impacts are identified in the various environmental topic sections in this SEIR.

Open Space and Access. The Project Modifications would not alter the approved parks, open spaces, waterfront trails, street grid, sidewalks and bicycle linkages, or public access and thus the Approved Project’s consistency with related policies remains valid for the Project Modifications (Objective W2, Policies W2.1, W2.3, W2.10, W10.6, W11.5, T3.5, T6.3, and N7.4); see also *San Francisco Bay Trail Plan*, above). The Project Modifications would include marina parking at the same ratio (one space for every five slips) as the Approved Project and thus the Approved Project’s consistency with Policy W2.9 remains valid for the Project Modifications. The additional residential and marina uses associated with the Project Modifications would be

accommodated by the existing and approved recreational and circulation resources (see SEIR sections IV.B, *Transportation and Circulation* and IV.L, *Public Services and Recreation*).

Transit. Although the Project Modifications would result in a slight increase in demand for transit service associated with the additional 600 residential units and expanded marina, the Project Modifications, as with the Approved Project, would align with the City's strong preference for encouraging the use of alternative transportation modes (Policy T4.1) (see Appendix C for an analysis of the proposed parking ratios and project effects on transit).

Sensitive Habitats. (Discussed under *Estuary Policy Plan*, below.)

Bicycle Master Plan

In December 2007, the City Council revised the Oakland Bicycle Master Plan as part of the LUTE. As identified in the 2009 EIR, the Bicycle Master Plan promotes citywide, long-range policy that promotes bicycling as a viable means of transportation and recreation in Oakland. *Let's Bike Oakland!*, the City of Oakland's Bike Plan, was adopted on July 9, 2019 and identifies programs and projects to improve the bikeability of Oakland. There are no changes to current or proposed bike paths at the Project site under the revised plan.

Project Consistency with Bicycle Mater Plan Policies

The Project Modifications would not alter the Approved Project's plan for bicycle linkages, bicycle pathways and bicycle parking, which would be developed in a manner consistent with the City's practices or adopted, updated standards and regulations at the time of project construction. There are also no changes to planned routes under the 2019 *Let's Bike Oakland!* Master Plan near the Project site that would require new analysis. Therefore, the Approved Project's consistency with related policies remains valid for the Project Modifications.

Pedestrian Master Plan

In November 2002, the City Council adopted the Pedestrian Master Plan as part of the LUTE. The Pedestrian Master Plan identifies policies and implementation measures for achieving LUTE policies that promote a walkable city. The plan was updated in 2017 to reflect the City's changing conditions, needs, and priorities (City of Oakland, 2018a). The 2017 Pedestrian Master Plan establishes goals and outcomes for pedestrians in the City, bulleted below. While these do not alter the findings of the 2009 EIR, they are still relevant to the Project Modifications:

- **Outcome 2: Create Streets and Places that Promote Walking.** To achieve this objective, the City will integrate safety into the design of new streets, incorporate art into pedestrian infrastructure, plant more street trees, repair sidewalks, install accessible curb ramps, and provide public open space in underutilized roadways. The City will also pursue citywide programs and partnerships with nonprofits and community groups to promote walking.
- **Outcome 3: Improve Walkability to Key Destinations.** Oaklanders should be able to walk safely to transit, schools, jobs, and other major destinations. To achieve this objective, the City will, where possible, improve sidewalk connections and wayfinding signage to these destinations.

Project Consistency with Pedestrian Master Plan Policies

The Project Modifications would not alter the Approved Project's provision of safe, improved pedestrian facilities (sidewalks, recreational paths, seating, signage, lighting, etc.) as well as opportunities for public art around and throughout the site and in proximity to and serving the waterfront. As discussed generally in Impact LU-3 below, the Project Modifications would not conflict with the policies listed above. Therefore, the Approved Project's consistency with related policies remains valid for the Project Modifications.

Estuary Policy Plan

The City Council formally adopted the *Estuary Policy Plan* (Estuary Plan) on June 8, 1999, as part of the Oakland General Plan. The background to and policies of the Estuary Plan were addressed in the 2009 EIR, and remain relevant and unchanged.

Project Consistency with Estuary Plan Policies

Land Use and Compatibility with Adjacent Uses. Many objectives and policies in the Estuary Plan are addressed by policies in the LUTE and discussed under the heading, *Project Consistency with LUTE Policies*, above. As discussed, the Project Modifications would not include changes to the location, design, site plan, or land uses of the Approved Project. Therefore, the Approved Project's consistency with policies related to land use and compatibility with adjacent uses remains valid for the Project Modifications.

Open Space and Recreation. The Project Modifications would not directly alter Approved Project's publicly-accessible parks, open spaces along the shoreline, trails, and access to the shoreline (Shoreline Access Objective 2, Policy OAK-2.2, Policy OAK-3.1, Policy OAK-2.4). The Project Modifications' marina expansion, including in-water infrastructure along the entire shoreline of the peninsula containing Phases I and II, would be in keeping with Estuary Plan policies relevant to Clinton Basin (Policies OAK-2.3 and OAK-4.4). The Project Modifications would not alter Approved Project improvements of the Embarcadero including landscaping along the frontage of the Project site (Policy OAK-9). The Project Modifications would not propose any alterations to Approved Project public parking along new streets and in proximity to new parks and open space areas (Policy OAK-11). Therefore, the Approved Project's consistency with related policies remains valid for the Project Modifications.

Wetland and Marsh Habitats. The Project Modifications would not alter Approved Project improvements to shoreline conditions and natural areas for potential habitats along the estuary and the Lake Merritt Channel frontages of the Project site (EPP SA-Objectives 1 and 5) or wetland modifications (EPP Policy OAK-1.1). Therefore, the Approved Project's consistency with related policies remains valid for the Project Modifications. See SEIR sections IV.D, *Hydrology and Water Quality*, and IV.I, *Biological Resources* for a more detailed discussion.

Ninth Avenue Terminal. The Project Modifications would not alter Approved Project modifications to the historic Ninth Avenue Terminal (Policy OAK-2.4). Therefore, the Approved Project's consistency with related policies remains valid for the Project Modifications.

Land Use Continuity, Access, and Circulation Connections. Several Estuary Plan policies encourage land use continuity and stronger circulation connections between the estuary waterfront and adjacent inland districts (Land Use Objective 6 and Circulation Objective 4). The Project Modifications would not alter Approved Project improvements to transit services to and from the site or access between nearby areas (Circulation Objective 5). Therefore, the Approved Project's consistency with related policies remains valid for the Project Modifications.

Fifth Avenue Point. Fifth Avenue Point exists in the middle of the Project site and is an integral part of the existing district of primarily industrial, manufacturing, and service uses that spans from the Ninth Avenue Terminal to Lake Merritt Channel. The Project Modifications would not alter the Approved Project's overall development envelopes east of 5th Avenue nor the site access and paving improvements to 5th Avenue. Therefore, the Approved Project's consistency with policies related to Fifth Avenue Point remains valid for the Project Modifications (Policies OAK-4.1, and OAK-8).

Open Space, Conservation and Recreation Element (OSCAR)

There have been no relevant changes to the OSCAR Element since the preparation of the 2009 EIR.

Project Consistency with OSCAR Policies

The Project Modifications would not alter the open space, trails, or shoreline elements of the Approved Project and thus Approved Project's consistency with related policies would remain valid for the Project Modifications (Objective OS-5, Policies OS-5.1, OS-7.1, OS-7.2, OS-7.5). To the extent that the Project Modifications would pose any adverse environmental impacts related to park use (Policy REC-3.1) or views and visual resources (Policies OS10.1, OS10.2, and OS10.3), these impacts and any required mitigation measures to reduce these impacts are identified sections IV.L, *Public Services and Recreation*, and IV.K *Aesthetics, Shadow, and Wind*. The Project Modifications would not alter proposed land uses and general land use patterns across the Project site, or construction practices related to demolition and grading as analyzed in the 2009 EIR, and therefore would not alter the 2009 EIR's consistency findings related to Policies CO-12.1, CO-12.3, CO-12.4 or CO-12.6.

Historic Preservation Element

There have been no relevant changes to the Historic Preservation Element since the preparation of the 2009 EIR.

Project Consistency with Historic Preservation Element Policies

The Project Modifications would not alter any aspect of the Approved Project relevant to historically significant resources (see Section IV.E, *Cultural Resources and Tribal Cultural Resources*). Therefore, the Approved Project's consistency with related policies remains valid for the Project Modifications.

Housing Element

The Housing Element Update 2015-2023 of the Oakland General Plan provides an assessment of the need for housing and an inventory of housing; statement of the goals with regard to housing residents; and a program for providing the needed amount of housing throughout the City (City of Oakland, 2014a). Since preparation of the 2009 EIR, the Housing Element has evolved to contain the following policy and objective that address issues related to land use and planning, adopted for the purpose of avoiding or mitigating an environmental effect, and that are relevant to the Project Modifications:

- ***Policy 1.3 Appropriate Locations and Densities for Housing:*** The City’s Strategic Planning Division initiated five (5) Specific Plans and one (1) Area Plan during the 2007-2014 Housing Element period, which will further the housing location and density objectives contained in the recently completed residential and commercial zoning update. The Lake Merritt Station Area (Specific) Plan, Broadway Valdez Specific Plan, West Oakland Specific Plan, Coliseum Area Specific Plan, and *Central Estuary Area Plan* included extensive community outreach processes and have resulted in specific zoning proposals. These Specific and Area Plans will facilitate the construction of nearly 17,000 new housing units in the City of Oakland. The completion of the Specific and Area Plans will provide these substantial housing gains in two respects: environmental clearance and community buy-in for future housing projects. Each planning process involved extensive community participation which culminated with significant community buy-in to the policies and development framework outlined in the plans, thus minimizing possible community opposition to future housing development projects.
 - ***Objective 1.3.5 Promote new housing opportunities in the Estuary Area:*** The Central Estuary Area Plan was adopted in 2013. The plan includes approximately 400 residential units. The Brooklyn Basin development (formerly known as "Oak to Ninth") is in the pre-construction stage as of 2013 for a total of 3,100 units approved.

Project Consistency with Housing Element Policies

While the Project site is not identified as an opportunity site for residential development in the Housing Element, it is identified under Objective 1.3.5 for new housing. In addition, as described in Section IV.J, *Population and Housing*, the Project Modifications would not conflict with the applicable Housing Element policies. Approximately 600 new, market-rate housing units would be introduced within the Approved Project’s mixed-use neighborhood located in central Oakland, in proximity to the downtown employment center, major transportation corridors and transit connections, new “green spaces” (Policy 7.4 and Policy 7.5). These 600 market rate units would also be subject to the City’s Affordable Housing Impact Fee. The Project Modifications would not change the location of the Approved Project’s residential uses and thus would support Smart Growth principals (Policy 7.1). Therefore, the Approved Project’s consistency with relevant Housing Element policies remains valid for the Project Modifications.

Noise Element

The City adopted Oakland’s Noise Element on June 21, 2005. The Noise Element analyzes and quantifies current and projected noise levels from various sources that contribute to the community noise environment. These noise levels are depicted on noise contour maps that are used to guide land use decisions to reduce noise impacts, especially on sensitive receptors. The

Noise Element also includes a land use-noise compatibility matrix that illustrates the degree of acceptability of exposing various sensitive land uses to noise.

Project Consistency with the Noise Element Policies

Although the Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would occur within the same overall building envelopes as the Approved Project. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project and this SEIR assumes that there would be no substantial increase in duration of construction-related activity with approval of the Project Modifications. The Project Modifications would result in an approximate 10 percent increase in labor force and associated worker trips to and from the site, as well as an approximately 10 percent increase in delivery trips to develop the additional 600 residential units on Phases III and IV. The marina expansion component (Phase VI) would result in additional construction-related delivery trips and extended construction timeframe due to limited in-water construction. Phase VI is anticipated to be constructed over five season with approximately 20 construction materials delivery trips per season.

The Project Modifications' additional 600 residential units would generate vehicle traffic which would contribute to roadside noise. The Project Modifications would also include water taxi operations that would generate noise. As described in Section IV.G, *Noise*, the Project Modifications would not conflict with the applicable Noise Element policies. Therefore, the Approved Project's consistency with relevant Noise Element policies remains valid for the Project Modifications.

Oakland Safety Element

There have been no relevant changes to the Safety Element since the preparation of the 2009 EIR.

Project Consistency with Oakland Safety Element Policies

The Project Modifications would not alter the Approved Project construction practices, site circulation, or site grading. Therefore, the Approved Project's consistency with related policies remains valid for the Project Modifications. Further, this SEIR includes a description of sea level rise as it relates to development on the Project site (see Section IV.D, *Hydrology and Water Quality*). Therefore, the Approved Project's consistency with relevant Safety Element policies remains valid for the Project Modifications.

Scenic Highway Element

There have been no relevant changes to Scenic Highways Safety Element since the preparation of the 2009 EIR.

Project Consistency with Scenic Highway Policies

The Project Modifications would not alter the number of buildings or building heights, utilities, or the road network analyzed for the Approved Project. Therefore, the Approved Project's consistency with related policies remains valid for the Project Modifications.

Oakland Energy and Climate Action Plan

In July 2020, via Resolution 88267, Oakland City Council adopted the 2030 Equitable Climate Action Plan (ECAP), a comprehensive plan to achieve the 2030 GHG reduction target and increase Oakland's resilience to the impacts of the climate crisis, both through a deep equity lens (City of Oakland, 2020b). The 2030 ECAP includes a set of 40 Actions projected to result in a 60 percent reduction in GHG emissions by 2030, relative to Oakland's 2005 emission levels. Actions are split into seven sectors:

- Transportation and Land Use
- Buildings
- Material Consumption and Waste
- Adaptation
- Carbon Removal
- City Leadership
- Port of Oakland

Project Consistency with ECAP

Section IV.N, *Greenhouse Gas Emissions*, includes a consistency analysis and concludes the Project Modifications would comply with the ECAP.

Oakland Standard Conditions of Approval (SCAs)

The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) in 2008, and they have since been amended and revised several times.⁵ Like other regulations, the SCAs apply to projects in the City regardless of their CEQA impacts. The SCAs are not mitigation measures and therefore are not listed as mitigation measures. If the Project Modifications are approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project Modifications. With implementation of the SCAs, some of the mitigation measures from the 2009 EIR are no longer needed, and this SEIR notes when that occurs.⁶ There are no SCAs relevant to land use.

⁵ A revised set of SCAs was recently published by the City of Oakland in December, 2020.

⁶ Where SCAs replace mitigation measures for the Project Modifications, such replacement does not indicate that the Project Modifications would have new or substantially more severe environmental impacts than the Approved Project.

IV.A.3 Impacts and Mitigation Measures

Significance Criteria

The City of Oakland has established thresholds of significance for CEQA impacts, which incorporate those in Appendix G of the CEQA Guidelines (City of Oakland, 2016). Based on these thresholds, the Project Modifications would have a significant impact on the environment if it would:

- A. Physically divide an established community;
- B. Result in a fundamental conflict between adjacent or nearby land uses;
- C. Fundamentally 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 plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect and actually result in a physical change in the environment; or
- D. Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan.

Methodology

Consistent with CEQA guidance, the SEIR is required to evaluate only the changes in the project, circumstances, or new information that could rise to new significant impacts or substantially more severe significant impacts than were analyzed in the 2009 EIR. As such, in accordance with CEQA Guidelines Section 15163, this SEIR contains information necessary to disclose environmental impacts from the Project Modifications that were not analyzed in the 2009 or would be substantially more severe than anticipated by the 2009 EIR. This SEIR evaluates the Project Modifications using the City's current methodology, significance criteria, and thresholds. The analysis relies on the environmental baseline, which is the physical circumstances existing at the time the NOP was published in September 2018, and also compares the Project Modification to the Approved Project to determine if the modifications create any new or substantially more severe impacts on the environment. This SEIR discusses new City requirements and analysis methods established since preparation of the 2009 EIR, such as the incorporation of the City's SCAs, which would be required conditions of approval for the Project Modifications.

Changes that have occurred to the environmental and regulatory setting since preparation of the 2009 EIR are described above. The City's CEQA Thresholds of Significance for land use, plans, and policies have not changed since the preparation of the 2009 EIR. The impact discussions and analyses below focus on the activities associated with the Project Modifications and the potential for land use, plans, and policies impacts associated with those activities that were not previously disclosed in the 2009 EIR.

Section 15125(d) of the CEQA Guidelines states that EIRs shall discuss any inconsistencies between a proposed project and applicable General Plans. As such, the Project Modifications' consistency with relevant plans and policies is summarized in the *Setting* section above. However, conflicts with a General Plan or other relevant plans do not inherently result in a

significant effect on the environment within the context of CEQA. As stated in section 15358(b) of the CEQA Guidelines, “[e]ffects analyzed under CEQA must be related to a physical change.” Appendix G of the CEQA Guidelines (Environmental Checklist Form) makes explicit the focus on *physical* environmental policies and plans, asking if the project would “conflict with any applicable land use plan, policy, or regulation...*adopted for the purpose of avoiding or mitigating an environmental effect*” (emphasis added).

Regarding a project’s consistency with the General Plan in the context of CEQA, the Oakland General Plan states the following:

The General Plan contains many policies which may in some cases address different goals, policies and objectives and thus some policies may compete with each other. The Planning Commission and City Council, in deciding whether to approve a proposed project, must decide whether, on balance, the project is consistent (i.e., in general harmony) with the General Plan. The fact that a specific project does not meet all General Plan goals, policies and objectives does not inherently result in a significant effect on the environment within the context of the California Environmental Quality Act (CEQA). (City Council Resolution No. 79312 C.M.S.; adopted June 2005)

Therefore, any conflicts or inconsistencies with policies are further evaluated for their potential for significant environmental impacts. To the extent that the Project Modifications exceed an environmental threshold and physical impacts may result from a policy conflict or inconsistency, such physical impacts have been identified and fully analyzed in the relevant topical sections of Chapter IV (i.e., cultural resources; air quality; noise; transportation, circulation, and parking, etc.).

Consistent with CEQA, not every policy that *could* apply to the Project Modifications is analyzed. The policies analyzed in this section are those that most directly pertain to the Project Modifications and that emerged as points of interest or controversy during the environmental review, scoping and community input processes. The lead agency and responsible agencies will ultimately determine the Project Modifications’ overall consistency on balance with the applicable goals and policies, as part of the decision to approve or reject the Project Modifications.

Impacts

Physical Division of an Established Community

Impact LU-1: The Project Modifications would develop a higher density of residential uses in buildings immediately adjacent to and surrounding Fifth Avenue Point but would not result in the physical division of an existing community. (Criterion A) (*Less than Significant with Mitigation*)

The 2009 EIR concluded that, although the Approved Project would not divide the concentrated core of uses within the Fifth Avenue Point (which would remain intact west of 5th Avenue), it would separate the community from the industrial/manufacturing district that currently surrounds it and thus result in a potentially significant impact with respect to the physical division of an existing community. Therefore, the 2009 EIR identified 2009 EIR Mitigation Measure A.1, which includes specific design standards that would effectively reduce the potentially significant impact

of the Approved Project's division of Fifth Avenue Point from its surroundings to a less than significant level.

The Project Modifications would not include changes to the building envelopes, site plan, or land uses of the Approved Project. No changes are proposed to the footprint or setbacks approved under the 2009 EIR. Although the Project Modifications would potentially change the location of one tower to Parcel L or M, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV, no change is proposed to the number or height of the Approved Project towers. As shown on Figure III-5, the new potential tower location on Parcel M would align with the northernmost portion of the parcel along the Embarcadero. As with the approved potential tower location on the very southern portion of the parcel, the new location would not directly front on the Fifth Avenue Point. The new potential tower location on Parcel L would align with Clinton Basin on the easternmost portion of the parcel setback from the Fifth Avenue Point. All buildings located adjacent to the Fifth Avenue Point would be subject to the conditions in 2009 Mitigation Measure A.1 regulating site plan design elements. In addition, the Project Modifications would include an increase in density by up to 600 residential units, which would contribute to this potentially significant impact. Therefore, although the increased residential density would not change the nature of Approved Project's impacts to the division of an existing community, 2009 EIR Mitigation Measure A.1 would apply to the Project Modifications.

Mitigation: 2009 Mitigation Measure A.1. The Project Applicant shall incorporate into the Project site plan design elements that (1) address the relationship (setback, height and upper-story setbacks, etc.) of new buildings located adjacent to Fifth Avenue Point to minimize the physical division of the outparcels from the existing Oak-to-Ninth District; (2) provide safe, direct, and well-designed pedestrian and bicycle access between the outparcels and the new public open spaces, trails, and marina uses on the Project site; (3) provide appropriate landscaping and/or other feature(s) to provide appropriate buffering between the outparcels and the Project site, where necessary and feasible. The proposed Planned Waterfront Zoning District (PWD-1) standards discussed in Impact A.2 shall incorporate, as appropriate, specific design standards to address the aforementioned elements in areas abutting Fifth Avenue Point.

Significance after Mitigation: Less than Significant.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential land use compatibility impact is substantially the same as that identified in the 2009 EIR under Impact A.1 and mitigated by 2009 Mitigation Measure A.1 (*less than significant with mitigation*). No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, "changed circumstances," or "new information," pursuant to CEQA Guidelines Section 15162.

Fundamental Conflict with Adjacent and Nearby Land Uses

Impact LU-2: The Project Modifications would not fundamentally conflict with adjacent or nearby uses. (Criterion B) (*Less than Significant with Mitigation*)

As described above, the Project Modifications would be consistent with General Plan policies related to adjacent and nearby land uses. To the extent that the Project Modifications could result in a physical change to the environment and result in significant environmental effects, those effects have been identified and fully analyzed in relevant topical sections of Chapter IV of this SEIR and reduced to less than significant.

The Project Modifications would increase the residential density on the Project site and include an expanded marina. Although, these components would not substantially change the land use character of the Approved Project, they would contribute to the potentially significant impact identified in the 2009 EIR. Implementation of 2009 EIR Mitigation Measure A.3a and Mitigation Measure A.3b, identified for the Approved Project would effectively reduce the potentially significant land use compatibility impact of the Modified Project. Therefore, consistent with conclusions in the 2009 EIR, with mitigation, the Project Modification would not result in a fundamental conflict with adjacent and nearby land uses and the impact would be less than significant.

Mitigation: 2009 Mitigation Measures A.3a and A.3b.

2009 Mitigation Measure A.3a: The Project Applicant shall implement all mitigation measures identified throughout this SEIR to address the significant physical impacts associated with the environmental changes that would occur as a result of the project, reducing each impact to less than significant, where feasible.

2009 Mitigation Measure A.3b: The Project Applicant shall implement the specific regulations and standards of the proposed Planned Waterfront Zoning District (consistent with Mitigation Measures A.1 and A.2b), if approved. To specifically address the physical impacts resulting from the change in land use and environment in proximity to Fifth Avenue Point and adjacent residential development, the project shall adhere to the regulations and standards for allowable uses, open space, streets, setbacks, building heights and upper-story stepbacks, maximum densities, maximum commercial space, pedestrian and bicycle access, and landscaping and buffering.

Significance after Mitigation: Less Than Significant.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impacts related to a land use compatibility is substantially less than that identified in the 2009 EIR under Impact A.3, as mitigated by 2009 Mitigation Measure A.3a and A.3b (*less than significant with mitigation*). No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Consistency with Plans, Policies, and Regulations

Impact LU-3: The Project Modifications would not be consistent with the existing land use classification and zoning district for the Project site. (Criterion C) (*Less than Significant*)

The Project Modifications include a residential density increase of up to 600 units (for a Project site total of up to 3,700 units), revised residential parking ratios to current code requirements, and expansion of the approved marina infrastructure and operation including accommodating a water taxi/shuttle service operating on San Francisco Bay. The Project Modifications' General Plan policies consistency analysis is provided in the Setting section above and concludes that the Project Modifications would not change the nature of the Approved Project's impacts related to policy consistency.

General Plan Use and Development Standards and Zoning Regulations

The Approved Project established the PWD-4 land use designation and PWD-4 zoning district by modifying the Estuary Plan land use classification to prescribe a maximum and minimum density instead of FAR, and to guide new development throughout the Project site. The PWD-4 zoning provides for a maximum density of up to 160 units per net acre (50 units per gross acre) and includes additional regulations to facilitate the development of an integrated mixed-use community with both public and private open space.

The Project Modifications would exceed the density constraints established in the existing PWD-4 zoning district and the proposed residential density increase is inconsistent with the development standards in the Estuary Plan (PWD-4) and zoning. To accommodate the increased density, as a part of the Project Modifications, the Project Applicant is seeking to amend the Maximum Density Section of the zoning regulations to increase the permitted average residential density from 50 to 58 dwelling units per gross acre at a maximum average density of 167 units over 22 net developable acres on the Project site. This change would accommodate the proposed 3,700 units across the Project site. This amendment would also change the Brooklyn Basin Off-street Parking and Loading Requirements on any unbuilt portions of the Approved Project and on Phases III and IV to conform with the current City of Oakland Zoning Code for downtown off-street parking provisions.

The identified conflicts with existing land use policies would not in and of themselves directly result in physical change in the environment that is not analyzed in this SEIR. However, inconsistencies with the PWD-4 land use classification, development standards, and the Zoning Regulations would constitute potential environmental change and result in physical effects since these standards guide the type, amount, mass, location, and intensity of development that could occur. To ensure consistency with the Estuary Policy Plan's land use designations, the Project Modifications include amendments to the General Plan and Planning Code as discussed above. In order to approve the Project Modifications, the City Council would be required to find and determine that the Project Modifications, with these amendments, is consistent with the General Plan and Estuary Policy Plan. Therefore, the Project Modifications would not fundamentally conflict with the City's General Plan and impacts would be less than significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impacts related to policy consistency is substantially the same as identified in the 2009 EIR under Impact A.2, as mitigated by 2009 EIR Mitigation Measures A.2a and A.2b (*less than significant with mitigation*). No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Fundamental Conflict with Habitat Conservation Plan or Natural Community Conservation Plan

Impact LU-4: The Project Modifications would not fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan. (Criterion D) (*Less than Significant with Mitigation*)

No adopted habitat conservation plan or natural community conservation plan covers the Project site’s terrestrial or marine areas. However, the Clinton Basin Wetland Restoration and Enhancement Project, previously implemented by the Port of Oakland, exists at the southwest edge of the mouth of Clinton Basin. As discussed in Section IV.I, *Biological Resources*, 2009 Mitigation Measure I.2b, Wetland Avoidance, would apply to the Project Modifications and would reduce any potential conflict with the Clinton Basin Wetland Restoration and Enhancement Project to a less than significant level.

Mitigation: 2009 Mitigation Measure I.2b. Wetland Avoidance.

Significance after Mitigation: Less Than Significant.

No New Significant Environmental Impacts in comparison to the 2009 EIR: Potential conflicts with applicable habitat or natural community conservation plans were discussed in the 2009 EIR Impact A.4 and the impact was determined to be *less than significant with mitigation* (2009 Mitigation Measure I.2b). The conclusion for the Project Modifications is the same as identified in the 2009 EIR. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Cumulative Impacts

Cumulative Context

The cumulative context for cumulative land use, plans and policies analysis consists of the Project Modifications in addition to the City’s current Major Project List (included as Appendix B) which encompasses current and reasonably foreseeable projects across the City. The geographic context considered for the cumulative land use, plans and policies impacts includes the area closely

surrounding the Project site and other projects with the potential to combine with the Project Modifications to result in cumulative land use, plans and policies impacts. Given the nature of the potential impacts analyzed in this section, the geographic scope would include the nearby waterfront neighborhoods to the east (Embarcadero Cove) and the west (Jack London District). Otherwise, the Project site is physically separated from areas to the north by the Embarcadero Roadway, the railroad tracks, and the I-880 freeway. The Project site's southern boundary and a portion of the eastern boundary is the Estuary.

Cumulative Impacts

Impact LU-5: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project site, would not result in a significant adverse cumulative land use, plans, and policy impact. (*Less than Significant with Mitigation*)

As analyzed throughout this section, the Project Modifications would contribute to potentially significant impacts identified in the 2009 EIR. Specifically, the increased residential density would contribute to a potential impact on the Fifth Avenue Point area and a potential impact with respect to land use compatibility with a substantial change to the development expectations in the Estuary Plan. The expanded marina would include in-water construction activities that could adversely affect the Clinton Basin Wetland Restoration and Enhancement Project. These potential impacts would be mitigated through implementation of 2009 EIR Mitigation Measures A.1, A.3a, and A.3b listed above. In addition, past projects have been, and present and reasonably foreseeable future projects would be, subject to development guidance contained within the General Plan and other applicable land use plans to ensure land use compatibility.

Given that these potential impacts are limited to concerns on the Project site and that impacts would be mitigated to a less than significant level, there is no opportunity for the Project Modifications to combine with other past, present, or reasonably foreseeable future projects to create a significant cumulative impact with respect to land use, plans, and policies.

Mitigation: 2009 Mitigation Measures A.1, A.3a, A.3b, and I.2b.

Significance after Mitigation: Less Than Significant.

No New Significant Environmental Impacts in comparison to the 2009 EIR: A less-than-significant cumulative impact was identified in the 2009 EIR (Impact A.5). The conclusion relies on implementation of project-specific 2009 EIR Mitigation Measures A.1, A.2a, A.2b, A.3a, and A.3b. As described above, adherence to 2009 EIR Mitigation Measures A.1, A.3a, and A.3b would reduce the potential impacts of the Project Modifications to a less than significant level. Therefore, the conclusion for the Project Modifications is the same as identified in the 2009 EIR and will remain less than significant with the incorporation of these measures. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, "changed circumstances" or "new information," pursuant to CEQA Guidelines Section 15162.

IV.A.4 References

- City of Oakland, 2014a. *City of Oakland Housing Element, 2015-2023*. July 2014.
- , 2014b. *Jack London Square Redevelopment Project Addendum to the 2004 EIR, State Clearinghouse No. 2003022086*. May 24, 2014.
- , 2014c. *Notice of Determination Regarding Jack London Square Redevelopment Project Addendum to the 2004 EIR, State Clearinghouse No. 2003022086*. September 23, 2014.
- , 2016. *City Of Oakland CEQA Thresholds of Significance Guidelines*. October 17, 2016.
- , 2018a. *Let's Bike Oakland! (Bike Plan Update, 2017-18)*. Available: www2.oaklandnet.com/government/o/PWA/o/EC/s/BicycleandPedestrianProgram/OAK024597. Accessed October 6, 2019.
- , 2020. *Equitable Climate Action Plan*. Adopted July 2020. Available: <https://www.oaklandca.gov/projects/2030ecap>. Accessed: February 5, 2021.
- Metropolitan Transportation Commission and Association of Bay Area Governments (MTC and ABAG), 2017a. *Plan Bay Area 2040 Final*, July 2017.
- San Francisco Bay Conservation and Development Commission (BCDC), 2005. *Design Review Board Staff Report, Brooklyn Basin – Oak to 9th Development Plan, First Pre-Application Review*, April 29, 2005.
- , 2015. *San Francisco Bay Plan*. Available: https://bcdc.ca.gov/plans/sfbay_plan#2. Accessed October 11, 2019.
- , 2018. *Permit No. 2006.007.02, Oakland Harbor Partners, LLC, Port of Oakland and City of Oakland*. Originally Issued on February 4, 2011, as Amended Through May 23, 2018.

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IV.B Transportation and Circulation

This section presents an analysis of potential impacts on transportation and circulation that would result from the Project Modifications described in Chapter III, *Project Description*. The affected environment, regulatory setting, and analysis from the 2009 EIR are relied on to the extent relevant in this Supplemental EIR (SEIR) and are discussed to the extent that they differ from those described in the 2009 EIR. This section analyzes the direct, indirect, and cumulative effects of the Project Modifications and compares them to the conclusions of the 2009 EIR; provides modifications (additions, deletions, updates, or other revisions), as needed, to the approved mitigation measures provided in the adopted Final EIR MMRP; and identifies any residual effects that may remain following the implementation of such measures.

IV.B.1 Environmental Setting

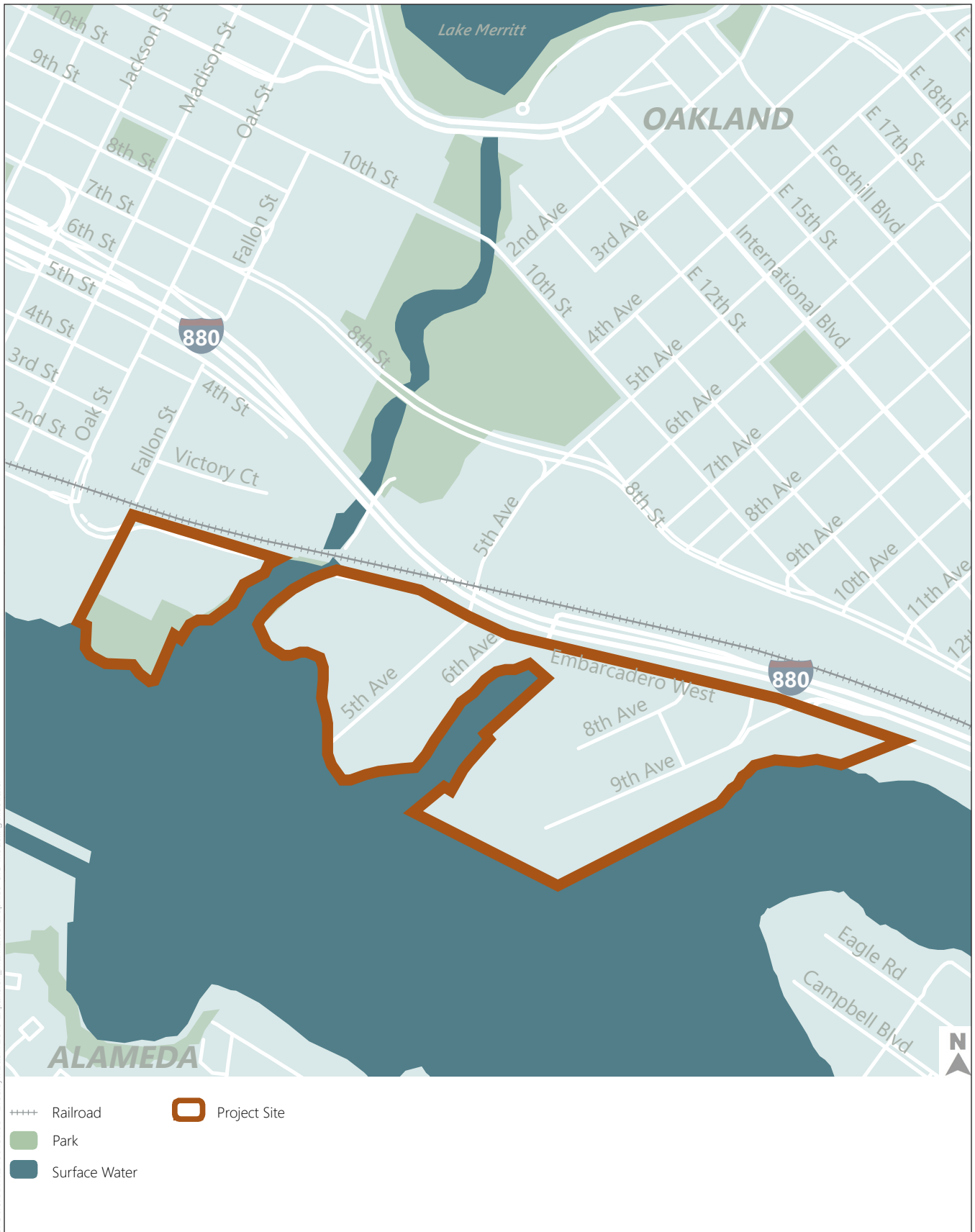
Since preparation of the 2009 EIR, there has been substantial and on-going construction of the Approved Project on Phase I and Phase II which was still under construction at the time of the NOP (September 2018). The existing transportation-related context in which the Project Modifications would be implemented is shown in **Figure IV.B-1.1** and described below, beginning with a description of the project vicinity and surrounding street network. Existing transit, bicycle, and pedestrian facilities are also described. This subsection also discusses planned transportation changes in Oakland near the Project Modifications.

Existing Street and Highway System

Existing regional freeway access to the Project site exists via Interstate 880 (I-880) and State Route 260. Vehicular access to the Project site is provided via the following local roadways: Embarcadero, Oak Street, 5th Avenue, 7th Street, and 8th Street. Significant changes to the existing street and highways system that have occurred since the 2009 EIR and how the Project Modifications would impact that system are described below.

Regional Access

Interstate 880 is an eight-lane freeway that runs in the north-south direction between Interstate 80 (I-80) near the Bay Bridge and San Jose. I-880 connects with Interstate 980 (I-980) which provides access to Downtown Oakland. The Project site is along the Embarcadero, east of Jack London District, and south of I-880 along the city of Oakland's southern boundary. Given the location of the Project site, it is expected that much of the Project Modification's regional traffic would access the site from I-880. I-880 would serve as the connection to travel to/from eastern Alameda and Contra Costa Counties, San Francisco (via the Bay Bridge), the Tri-Valley (via State Route 238 and Interstate 580), and the South Bay. Since 2009, the I-880 structure over Lake Merritt Channel has been replaced and the on- and off-ramp merges and diverges near the new channel structure modified. In addition, ramp metering was installed at the Oak Street on-ramp to southbound I-880. None of these changes were capacity improvements.



SFO\15XXXX.XLD\150431.00 - Brooklyn Basin 2018 Expansion - Marina\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Feer & Peers, 2019

Brooklyn Basin Marina Expansion Project

Figure IV.B-1.1
Project Modifications Study Area



State Route 260 is a four-lane roadway that connects the cities of Alameda and Oakland through the Posey and Webster tubes. The Posey-Webster Tubes are linked to the regional roadway network via local surface streets in downtown Oakland, such as Webster, Harrison, and 7th streets. Since 2009, there have been no capacity improvement projects through the Posey-Webster Tubes but shortly after 2009 the Willie Stargell Avenue intersection was constructed in the City of Alameda. This connection improved motor vehicle circulation within the City Alameda but did not add capacity to the State Route 260 corridor.

Local Access

There are many local and arterial streets serving the Project site. Key local roadways that provide access to the Project site are described below.

Embarcadero is a two-lane minor arterial that fronts the Project site and runs in the north-south direction along the Oakland Inner Harbor waterway. Embarcadero has buffered bike lanes in both directions and parking on one side near the Project site. Embarcadero is the primary access route to Jack London District, Amtrak Station, and the Oakland/Alameda Ferry. It also provides access to downtown Oakland via Oak Street. Since 2009, the Embarcadero Bridge over the Lake Merritt Channel was replaced, and Embarcadero was improved along the Project's frontage. The improvements provided enhanced walking and biking facilities and widened the roadway sufficiently to accommodate two travel lanes in each direction, although the roadway is currently striped for one travel lane in each direction.

Oak Street is a multi-lane east-west minor arterial. North of 6th Street, Oak Street becomes a three-lane, one-way street. Oak Street, south of I-880, is a two-way street with one lane each way and has buffered bike lanes and parking on both sides of the street. Oak Street provides access to the Lake Merritt BART station, located at the Oak Street/8th Street intersection about 0.9 miles from the Project site, and access to I-880 via a southbound on-ramp at 5th Street and northbound off-ramp at 6th Street. Since 2009, Oak Street has been striped to include bike lanes while maintaining the same motor vehicle capacity.

Fifth Avenue is an east-west minor arterial. It is a two-lane roadway with bicycle lanes in both directions and parking on both sides. It would serve as a primary project access route. The bike lanes provide connections between the bike lanes on Embarcadero and those on East 12th Street which are being constructed as part of the East Bay Bus Rapid Transit (BRT) Project. The 5th Avenue corridor also connects to the BRT Project which became operational in August 2020, which would operate on East 12th Street and International Boulevard. A northbound BRT station is planned at the 5th Avenue/International Boulevard intersection and a southbound station at the 7th Avenue/E 12th Street intersection. Since 2009, the at-grade railroad crossing at Fifth Avenue, adjacent to Embarcadero, has been improved for all travel modes while maintaining the same motor vehicle capacity.

Seventh Street is a four-lane north-south minor arterial street near the Project site. West of Fallon Street, 7th Street is a four-lane one-way street. East of Fallon Street, 7th Street becomes 8th Street which provides a connection between West and East Oakland through

Downtown. Since 2009, bike lanes were added to the corridor while maintaining the same motor vehicle capacity.

Existing Transit Services

Transit services in the project vicinity include AC Transit bus service, Bay Area Rapid Transit (BART), Free Broadway Shuttle, Amtrak, and ferry service. Most of the nearby transit services are concentrated along the Broadway corridor in Downtown Oakland and in Jack London Square. Each of these services is described below.

Bus Services (AC Transit)

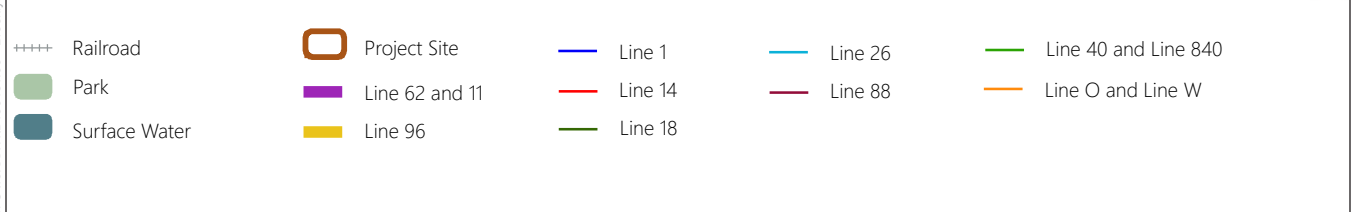
AC Transit is the primary bus service provider in 13 cities and adjacent unincorporated areas in Alameda and Contra Costa Counties, with Transbay service to destinations in San Francisco, San Mateo and Santa Clara Counties. The primary bus lines nearest the Project site are line 96 and line 62, as described below:

- Line 96 provides Fruitvale Montana/Alameda Point connections from 6 a.m. to 11 p.m. on weekdays and weekends with 30-minute headways. The route runs on 14th Avenue via 12th Street, 5th Avenue, and 7th/8th Streets. The closest bus stops to the Project site are located at the 5th Avenue/E 10th Street intersection, approximately 0.4 miles or an 8-minute walk from the Project site.
- Line 62 runs between the West Oakland and Fruitvale BART stations. It runs from 6 a.m. to 12:30 a.m. on weekdays and weekends with 30-minute headways. The closest bus stop to the Project site is located at the 5th Avenue/E 10th Street intersection, approximately 0.4 miles or an 8-minute walk from the Project site.

While no routes directly serve the Project site, several AC Transit lines can be accessed at the Lake Merritt BART station (about 0.9 miles or an 18-minute walk from the Project site) including Line 18, 62, 88, and 96. AC Transit's Line 12 serves the Jack London Square Amtrak Station (about 0.8 miles or a 16-minute walk from the Project site). The Free Broadway Shuttle stops at the Webster Street / Embarcadero intersection about 1.0 miles or a 20-minute walk from the Project site. The BRT stops, northbound on International Boulevard at 5th Avenue and southbound on East 12th Street at 7th Avenue, are about 0.6 and 0.7 miles or a 14-minute walk from the Project site. **Figure IV.B-1.2** shows the transit service. Except for the new BRT service, started in 2020, AC Transit has only made minor adjustments to bus service since 2009.

Bay Area Rapid Transit (BART)

BART provides regional rail service between San Francisco, northern San Mateo County, and the East Bay. The average weekday ridership in 2019 was about 411,000 passengers systemwide (BART, 2019). The closest BART station is Lake Merritt, about 0.9 miles away or an 18-minute walk, with a daily ridership of about 14,200 entries and exits combined. The Lake Merritt Station is in Oakland's Chinatown, with an entrance at the Oak Street/8th Street intersection. The station is located underground, has four access points, including access via stairs, an escalator, and elevator. The station is served by the Dublin/Pleasanton-Daly City, Richmond-Warm Springs/South Fremont, and Warm Springs/South Fremont-Daly City lines.



SOURCE: Feer & Peers, 2019

Brooklyn Basin Marina Expansion Project

Figure IV.B-1.2
Existing AC Transit



Service is scheduled at 15-minute frequencies on each line during the peak periods and 20-25-minute frequencies during the off-peak hours. On Sundays, the station is served by Dublin/Pleasanton-Montgomery St/Daly City and Richmond-Warm Springs/South Fremont lines with 20-minute frequencies. Since 2009, BART has only made minor adjustments to service frequencies through the Lake Merritt BART Station and adjusted the number of cars per train to optimize system efficiencies.

Free Broadway Shuttle

AC Transit currently contracts with the City of Oakland to operate the Free Broadway Shuttle along Broadway and some adjacent streets. The Shuttle operates daytime service Mondays-Fridays 7 a.m.-7 p.m. between Embarcadero West (Jack London Square) and Grand Avenue. Daytime shuttles run every 11 minutes during commute hours and lunchtime, and every 12-15 minutes otherwise. Night service operates Mondays-Fridays from 7 p.m.-10 p.m. between Embarcadero West (Jack London Square) and 27th Street. Night shuttles run every 12 minutes. The shuttle has been operating since 2010.

Regional Rail Service

Amtrak operates regional and interregional rail service through the Oakland Jack London Square Station on 2nd Street between Harrison Street and Jackson Street. This station is about 0.8 miles west of the Project site (about a 16-minute walk). Several lines use this Jack London Square Station, including the Capitol Corridor, the San Joaquin, and the Coast Starlight:

- Capitol Corridor connects Sacramento and San Jose through Oakland. This service provides 15 trains per direction on weekdays and 11 trains per direction on weekends. The typical headways are one hour during peak periods.
- San Joaquin connects Oakland and Bakersfield through Stockton. The service runs five trains in each direction. The scheduled trip time between Oakland and Stockton is about one hour and forty-five minutes.
- Coast Starlight connects Vancouver and Los Angeles through Sacramento, Oakland, and San Jose. The service runs one train in each direction daily.

Ferry and On Demand Water Taxi Service

The Jack London Square Ferry Terminal provides connections to all San Francisco terminals. In February 2019, the average weekday ridership for the Oakland Terminal was approximately 3,300 passengers. Ferry riders can transfer for free to AC transit buses and are eligible for free parking in the 101 Washington parking garage. The weekday service operates between 6 a.m. and 9:25 p.m. with one-hour headways during the peak periods, and about two-hour headways during off-peak periods. The weekend service operates between 10 a.m. and 7:10 p.m. about every 90 minutes to two hours.

An on-demand water taxi service is currently operated on San Francisco Bay by Tideline Marine Group. The service operates as a normal taxi service with on-demand service available to

approximately a dozen San Francisco, East Bay and North Bay locations.¹ Tideline also operates a scheduled Berkeley to San Francisco (Piers 1.5 and 52) commute service with two morning and two evening loops.

Existing Bicycle Network

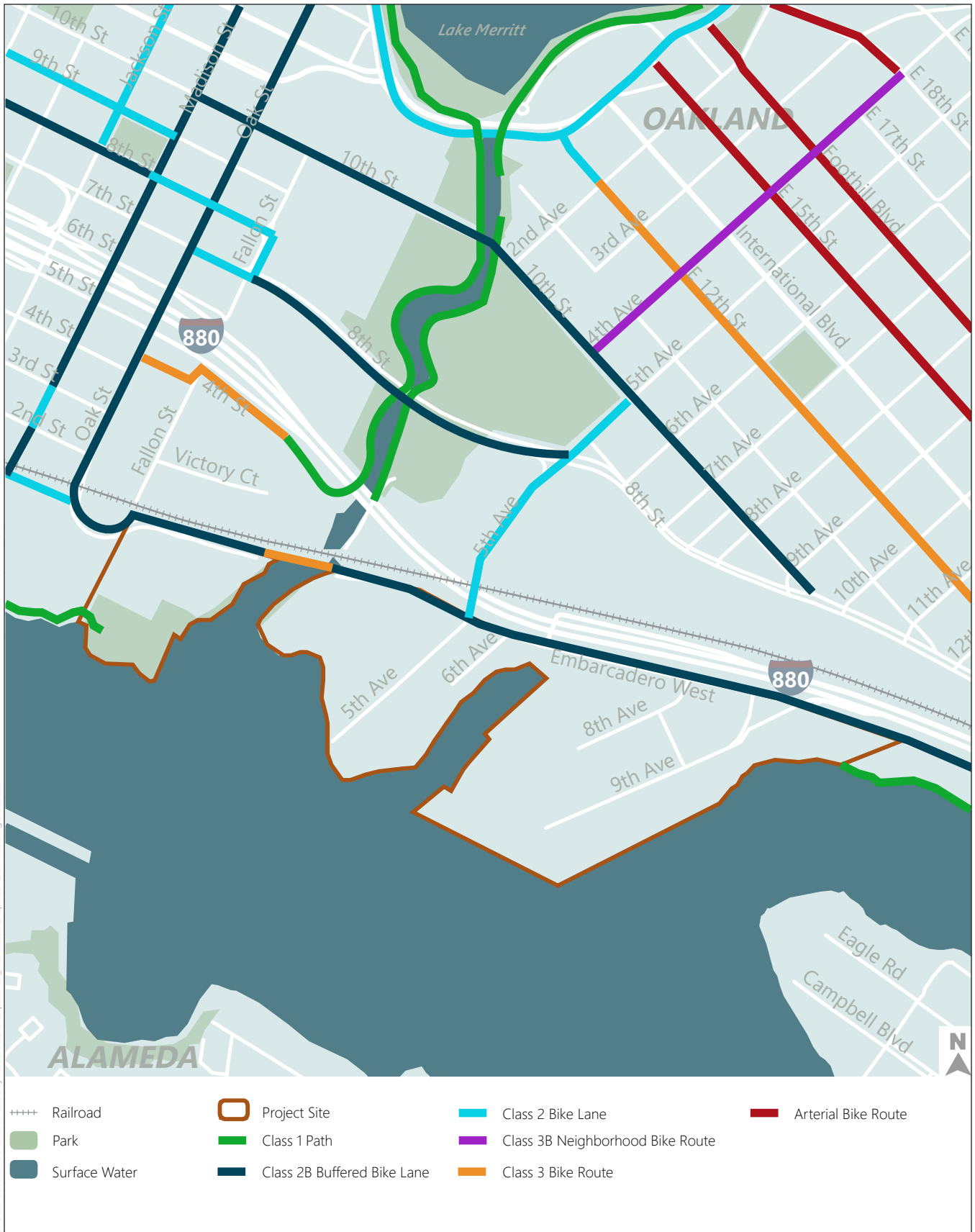
The City of Oakland identifies the following bicycle facility types as described in the 2019 Bike Plan.

- Class 1 Bikeways or Paths are located off-street and can serve both bicyclists and pedestrians. Recreational trails can be considered Class 1 facilities, and are generally paved.
- Class 2 Bike Lanes provide a dedicated area for bicyclists within the paved street width using striping and appropriate signage.
- Class 2B Buffered Bike Lanes provide a dedicated area for bicyclists within the paved street, separated from the motor vehicle travel lanes by a painted buffer.
- Class 3 Bike Routes are located along streets that do not provide enough width for dedicated bicycle lanes. The street is then designated as a bicycle route using signage, informing drivers to expect bicyclists.
- Class 3A Arterial Bike Routes are located along some arterial streets where bicycle lanes are not feasible and parallel streets do not provide adequate connectivity. Speed limits as low as 25 miles per hour (mph), and shared-lane bicycle stencils, wide curb lanes, and signage are used to encourage shared use. According to the 2019 Oakland Bike Plan, New Class 3A facilities will no longer be proposed.
- Class 3B Neighborhood Bike Routes are located along residential streets with low traffic volumes. Assignment of right-of-way to the route, traffic calming measures, and bicycle traffic signal actuation are used to prioritize through-trips for bicycles.
- Class 4 Protected Bike Lanes also known as cycle tracks, provide space that is exclusively for bicyclists and is separated from motor vehicle travel lanes. This on-street bike lane is separated from motor vehicle traffic by curbs, medians, bollards, planters, parking, or other physical barriers. Where on-street parking is allowed, the bike lane is typically placed between the bikeway and the travel lanes (rather than between the bikeway and the sidewalk, as is typical for Class 2 bike lanes).

Figure IV.B-1.3 shows the existing and planned bicycle facilities in the project vicinity per the City's Bike Plan. Many of the City's bike facilities are being implemented over time as part of street repaving projects. As a result, existing bike facilities are not always continuous; the proposed facilities are also described to illustrate system connectivity. Key bike facilities serving the project site are:

- The Bay Trail, which currently extends from Jack London District to the Estuary Park and is planned to extend through the Project site

¹ Charter destinations currently include Sausalito, Tiburon, Angel Island, Berkeley, Jack London Square, Alameda, Oyster Point, Napa and SF (Hyde Street), Gate B Ferry Building, China Basin, Napa Main Street Dock, South Beach (Pier 40), and Mission Bay.



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SOURCE: Feer & Peers, 2019

Brooklyn Basin Marina Expansion Project

Figure IV.B-1.3
Existing Bicycle Facilities



- Class 2B Buffered Bike Lane on Embarcadero from Oak Street to 16th Avenue which also serves as the on-street Bay Trail
- Class 2 Bike Lane on 5th Avenue from Embarcadero to 10th Street
- Class 2B Buffered Bike Lane on 7th Street from Fallon Street to 5th Avenue
- Class 2B Buffered Bike Lane on 10th from Madison Street to 9th Avenue
- Class 1 bikeway/path along each side of Lake Merritt Channel connecting to the path circling Lake Merritt; with channel crossing opportunities at 7th Street, Laney College pedestrian bridge, 10th Street, and Lake Merritt Boulevard

Existing Pedestrian Network

Pedestrian facilities generally include sidewalks, paths and stairs. Other facilities might include marked crosswalks, curb ramps, pedestrian signal heads and buttons, lighting, curb extensions, and wayfinding signs. The Project site is located on the border between the Downtown and Eastlake/Fruitvale plan areas in *Oakland Walks!* (2017 Pedestrian Plan Update). The Walk Scores® for the Project site is 52 for walking which is considered somewhat walkable i.e., some errands can be accomplished on foot. The transit score is 67 indicating that there are many nearby public transportation options. The bike score is 78 indicating a flat area with many bike lanes. The lower walk score is indicative of the I-880 corridor which limits direct connections for people walking between the Project site and other parts of Oakland. These scores are expected to improve as the Project site continues to buildout.

There is a sidewalk gap in the project vicinity on the east side of Embarcadero between Oak Street and 16th Street.

Existing Railroad Characteristics

The Union Pacific Railroad (UPRR) is a freight-hauling railroad company that owns and operates the rail lines adjacent to the site. These rail lines are used both for passenger transportation by Amtrak and the Capitol Corridor Joint Powers Authority (Capitol Corridor), and freight transport by UPRR.

There is an at-grade crossing at 5th Avenue. There are three UPRR mainline tracks through the at-grade crossing. The at-grade railroad crossing was recently improved as part of mitigation described in the 2009 EIR for the Brooklyn Basin Project. The improvements include two 9A warning devices (flashing light signals with automated gate arms and additional flashing light on the cantilever), one in each direction. The Embarcadero / 5th Avenue intersection is signalized with railroad preemption including an advance signal for westbound 5th Avenue traffic so motor vehicles do not queue on the railroad tracks. There were no train crashes (any collision involving a train at the at-grade crossing) at this crossing within the last five years i.e., between 2014 and 2018, as reported in the Federal Railroad Administration Office of Safety Analysis's Highway-Rail Grade Crossing Accident/Incident Reports. The use of five years of collision data is consistent with the City's guidelines for evaluating crash history.

Existing Traffic Conditions

Vehicle-Miles-Traveled

At the time of the 2009 EIR, a description of existing traffic conditions included a detailed description of intersection level-of-service (LOS). In 2016, the City of Oakland updated its California Environmental Quality Act (CEQA) Thresholds of Significance Guidelines related to transportation impacts by removing automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, to include Vehicle-Miles-Traveled (VMT). Vehicle-Miles-Traveled (VMT) refers to the amount and distance of automobile travel attributable to a project. More information on the guidance is included in the Regulatory Setting section below.

This analysis uses the Metropolitan Transportation Commission (MTC) Travel Model to estimate VMT. Based on the MTC Travel Model, the regional average VMT per capita for residential uses is 15.0 while the average in the traffic analysis zone (TAZ) for the project area is 9.24 under 2020 conditions.

Planned Transportation Network Changes

Changes are planned for various transportation modes in the project vicinity, as described below. These are changes that would be implemented regardless of the Project Modifications. Changes that have full approval and funding are assumed in the analysis of future conditions in this SEIR. Changes lacking final design, full approval, and/or full funding are not considered reasonably foreseeable, and therefore are not assumed in the analysis of future conditions. Planned changes by travel mode are summarized below.

Planned Regional Access Changes

Oakland/Alameda Access Project

Considerable efforts have been made to improve operations at the Broadway/Jackson interchange at I-880. The Oakland/Alameda Access Project would improve vehicular connections between the Webster Tube and I-880 freeway as well as local street improvements that enhance local neighborhood circulation. The preliminary studies for the improvements are complete, the environmental process is still underway, and partial funding is available. The expected construction is between 2023 and 2026. It is not expected that this project will have any impact on access to the Project site.

Planned Transit Changes

Bus Services (AC Transit)

The Project Modifications would be required to apply conditions of approval imposed on the Approved Project to adopt improvements to bus services, including a written commitment from AC Transit to provide bus service or a private shuttle operations plan that would serve the Project site. The bus service plan or private shuttle operations plan will include a commitment of financial participation for peak hour service, routing, schedule, and phased implementation according to the threshold established for the issuance of occupancy permits for the transportation improvements phasing plan. Shuttle service, which was conditioned to be operative within six months of the occupancy of the one thousandth (1,000th) unit of the Approved Project, has been in operation since November 2019.

AC Transit is completing the BRT Project which will operate on East 12th Street and International Boulevard near the Project site. The service will include dedicated bus lanes southbound on East 12th Street and northbound on International Boulevard. The nearest BRT stations to the Project site will include a northbound station on International Boulevard at 5th Avenue and a southbound station on East 12th Street at 7th Avenue. Revenue service started in August 2020.

Bay Area Rapid Transit (BART)

BART has allocated funds for a new fleet of train cars which will reduce the time it takes people to exit and enter train cars by up to 50 percent, a new maintenance facility, and a new train control system which is expected to increase system capacity through the Transbay Tube from 24 to 30 trains per hour per direction and be implemented by 2028. BART is also analyzing the feasibility of a second Transbay Tube, with initial studies expected to start in 2020/21. A second Transbay Tube could expand systemwide capacity to meet projected ridership demand. While funding is available for studies, no capital funds have been allocated.

Ferry Service

Water Emergency Transportation Authority plans to expand the Oakland Estuary Service to handle existing and expected increases in ridership. A new Ferry Terminal is being constructed at Seaplane Lagoon, which will allow for Alameda residents to have direct service to several San Francisco and Peninsula ferry terminals. This will free up additional capacity to serve the Jack London Terminal and the Main Street Terminal in Alameda. The increased service is fully funded and expected to be implemented in July 2021, and therefore assumed to be complete in the cumulative analysis of this SEIR.

Water Taxi Service

Tideline Marine Group plans to expand its water taxi service and small-scale ferry service to Oakland's Jack London Square.

Planned Street Network Improvements

Many of the 2009 Mitigation Measures have already been implemented either as part of the Approved Project, other development projects, or capital improvement projects. The remaining mitigation measures for the Approved Project that have not yet been fully implemented include:

- Widen Embarcadero to provide two through travel lanes in each direction along the project site frontage (i.e., from north of 4th Avenue to 9th Avenue), with separate left-turn lanes provided at the intersections with appropriate traffic control as well as appropriate lane configurations on the streets that intersect Embarcadero. The road has been constructed to accommodate the improvement, but the City directed buffer bike lanes with a single lane in each direction to be striped until such time that the City determines the additional motor vehicle lanes are needed.
- Install a traffic signal at the Embarcadero intersection with Oak Street. The 2009 approvals for the Approved Project require this improvement no later than issuance of occupancy permit for the one thousandth (1,000th) unit. The City interprets this requirement as calling for installation of the improvement when the Approved Project generates as many vehicle trips as were forecast by the 2009 EIR to be generated by the one thousandth unit.

- Install a traffic signal at the Embarcadero intersection with 10th Avenue. The 2009 approvals for the Approved Project require this improvement no later than issuance of occupancy permit for the twenty-fifth hundredth (2,500th) unit, if warranted, based on the full complement of signal warrants required by Caltrans.
- Widen 5th Avenue at the 7th Street / 8th Street intersection to accommodate two lanes each way plus left turn pockets on 5th Avenue by removing parking. Since 2009 approvals, the City installed bike lanes on 5th Avenue precluding the corridor widening to two lanes each direction. In addition, the 2019 Bike Plan reaffirms the bike lane priority on 5th Avenue. The left turn pockets can be installed while maintain the bike lanes if on-street parking at the intersection is prohibited. The 2009 approvals for the Approved Project require this improvement no later than issuance of occupancy permit for the twenty-fifth hundredth (2,500th) unit.

Planned Bicycle/Pedestrian Changes

The *Let's Bike Oakland 2019, Oakland's Bike Plan* proposes the following improvements to the bicycle facilities in the project vicinity, as shown in **Figure IV.B-1.4**.

- Filling the Bay Trail gap along the waterfront from Estuary Park to 10th Avenue (part of the Approved Project)
- Filling the gap along the Class 1 path connecting Lake Merritt to the waterfront through the Lake Merritt channel
- Class 2B Buffered Bike Lane on 5th Avenue from Embarcadero to East 12th Street
- Class 4 Protected Bike Lane on 7th/8th Street and on East 12th Street connecting Laney College at Fallon Street to Fruitvale Avenue
- Class 4 Protected Bike Lane on 10th Street from Oak Street to 9th Avenue

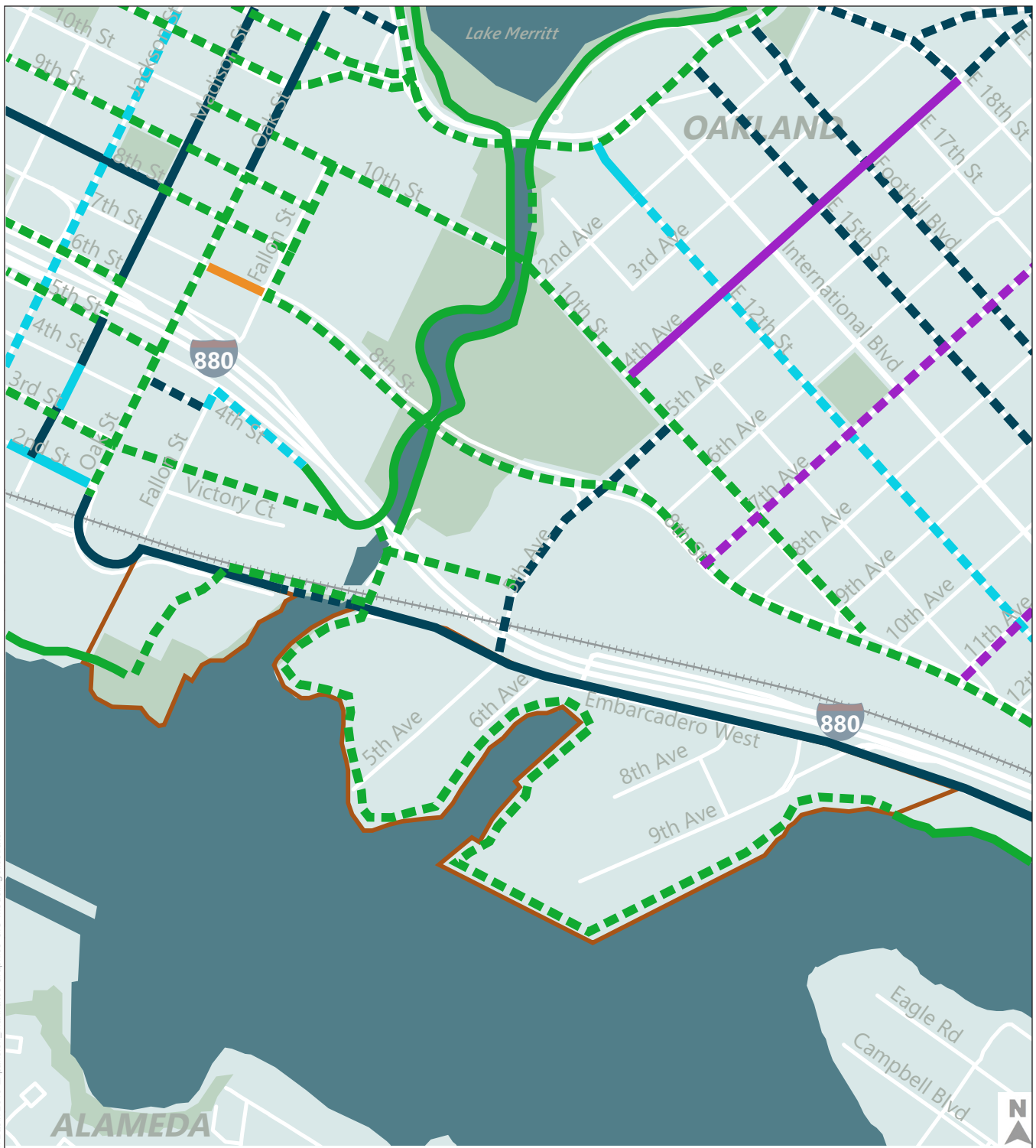
These improvements have not been designed and are not fully funded at this time, and therefore, cannot be assumed to be in place for this SEIR.

Planned Intersection Changes

The Jack London Square Redevelopment project EIR and 2009 EIR identified several improvements in the project vicinity that would be required to mitigate traffic impacts from the two projects. Several mitigation measures have already been implemented as a part of these projects. Intersection changes that remain include:

- Remaining mitigation measures to be fulfilled by the Approved Project:
 - Install a traffic signal at the Embarcadero/I-880 Southbound on-ramp/10th Avenue intersection
 - Redesign the 5th Street/7th Street/8th Street intersection
- Remaining mitigation measures to be fulfilled by both Approved Project and the Jack London Square Project:
 - Install traffic signals at the Embarcadero/Oak Street intersection

All mitigation measures will be implemented by the time of Approved Project buildout and Jack London Square Redevelopment project buildout and are assumed to be in place in the cumulative analysis of this SEIR.



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- | | | | |
|---------------|--------------------------------------|---|---|
| ++++ Railroad | Project Site | Proposed Class 2 Bike Lane | Existing Class 2 Bike Lane |
| Park | Proposed Class 1 Path | Proposed Class 3B Neighborhood Bike Route | Existing Class 3B Neighborhood Bike Route |
| Surface Water | Proposed Class 2B Buffered Bike Lane | Existing Class 1 Path | |

SOURCE: Feer & Peers, 2019

Brooklyn Basin Marina Expansion Project

Figure IV.B-1.4
Proposed Bicycle Facilities



IV.B.2 Regulatory Setting

As stated above, the regulatory setting from the 2009 EIR is relied on to the extent practicable in this SEIR. Existing plans, policies, and regulations that relate and apply to the Project Modifications at the local, regional, and state levels, are discussed below only to the extent that they differ from those described in the 2009 EIR.

Federal and State

SB 743

On September 27, 2013, Senate Bill (SB) 743 was signed into law, building on legislative changes from SB 375, Assembly Bill (AB) 32, and AB 1358, and described in Section 4.7, *Greenhouse Gas Emissions*. SB 743 began the process to modify how impacts to the transportation system are assessed for purposes of CEQA compliance. SB 743 created a shift in transportation impact analysis under CEQA from a focus on automobile delay, as measured by LOS and similar metrics, toward a focus on reducing VMT.

SB 743 also includes amendments that revise the definition of “infill opportunity zones” to allow cities and counties to opt out of traditional LOS standards established by congestion management programs (CMPs), and requires the Governor’s Office of Planning and Research (OPR) to update the State CEQA Guidelines and establish criteria for determining the significance of transportation impacts. The statute states that upon certification of the new criteria, automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment under CEQA, except in certain locations specifically identified in the new criteria.

The new criteria, contained in State CEQA Guidelines Section 15064.3, were certified and adopted in December 2018. Section 15064.3 states that VMT is the most appropriate metric to assess transportation impacts and that, with limited exceptions, a project’s effect on automobile delay does not constitute a significant environmental impact.

State CEQA Guidelines Section 15064.3 provides that a lead agency may elect to be governed by the new provisions immediately, and that the provisions will apply statewide beginning on July 1, 2020. On September 21, 2016, the City of Oakland Planning Commission updated Oakland’s CEQA Thresholds of Significance Guidelines aligning with SB 743.

California Public Utilities Commission (CPUC) PUC Rail Crossing Rules and Regulations

CPUC is a state agency that is responsible for safety of freight railroads, inter-city and commuter railroads, highway-rail and pathway-rail crossings. CPUC includes several regulations, referred to as Commission General Orders (GO), that discuss railroad crossings. GO 88-B, specifically, establishes criteria for alterations of existing public highway-railroad crossings. Alterations must meet two criteria: the public agencies having jurisdiction over the roadway involved and the railroad corporation shall agree as to the public necessity for altering the existing highway-rail crossing and the proposed alteration shall comply with all applicable Commission GO. Additional

guidance on rail crossing alterations is included in the CPUC Rules of Practice and Procedure, Rule 3.7: Public Road Across Railroad and Rule 3.8: Alter or Relocate Existing Railroad Crossing.

Regional

Plan Bay Area 2040

Plan Bay Area acts as both the Bay Area’s Regional Transportation Plan as well as its Sustainable Communities Strategy. Plan Bay Area grew out of “The California Sustainable Communities and Climate Protection Act of 2008” (California Senate Bill 375, Steinberg), which requires each of the state’s 18 metropolitan areas to reduce GHG emissions from cars and light trucks.

Within Plan Bay Area, the MTC and the Association of Bay Area Governments (ABAG) found the Bay Area consistently ranks as one of the most congested metropolitan areas in the nation. They concluded, however, that additional roadway capacity would not solve the problem and that the region must instead find ways to operate the existing highway and transit networks more efficiently.

To that end, Plan Bay Area recommends increasing non-auto travel mode share and reducing vehicle miles traveled (VMT) per capita and per employee by promoting transit-oriented development, transit improvements, and active transportation modes such as walking and bicycling. These strategies seek to not only improve mobility within the region, but also reduce regional and statewide GHG emissions.

Local Plans, Ordinances and Policies

General Plan

Except for the plans described below, there has been no change to the General Plan since preparation of the 2009 EIR with respect to traffic and transportation that is relevant to this SEIR analysis.

Pedestrian Master Plan Oakland Walks!

Oakland’s Pedestrian Master Plan, *Oakland Walks!*, was adopted June 27, 2017 and identifies policies and implementation measures that promote a walkable city. The plan’s vision is built around four pillars – Holistic Community Safety, Equity, Responsiveness, and Vitality:

- **Holistic Community Safety** – Make Oakland’s pedestrian environment safe and welcoming.
- **Equity** – Recognizing a historical pattern of disinvestment, focus investment and resources to create equitable, accessible walking conditions to meet the needs of Oakland’s diverse communities.
- **Responsiveness** – Develop and provide tools to ensure that Oakland creates and maintains a vibrant pedestrian environment.
- **Vitality** – Ensure that Oakland’s pedestrian environment is welcoming, well-connected, supports the local economy, and sustains healthy communities.

Within these four pillars, *Oakland Walks!* strives for five outcomes and within each are several actions.

Outcome 1: Increase Pedestrian Safety. There are ten actions within this outcome. The City will install pedestrian safety improvements in high injury corridors, develop new policies, adopt Vision Zero, upgrade signals and other infrastructure, work to reduce vehicle speeds, improve lighting, and explore ways to equitably enforce traffic laws.

Outcome 2: Create Streets and Places that Promote Walking. There are nine actions within this outcome. The City will integrate safety into the design of new streets, incorporate art into pedestrian infrastructure, plant more street trees, repair sidewalks, install accessible curb ramps and other features to improve the pedestrian environment for vulnerable populations, and provide public open space in underutilized roadways. The City will also pursue citywide programs and partnerships with nonprofits and community groups to promote walking.

Outcome 3: Improve Walkability to Key Destinations. There are six actions within this outcome. The City will develop a prioritization strategy to best focus the benefits of the Safe Routes to School program, establish a similar program focused on first and last mile access to transit, support wayfinding efforts that can be used by vulnerable populations, and identify strategies for improving the walking environment in and near Caltrans-owned rights-of-way, such as underneath freeway overpasses, on- and off-ramps, and streets where the surface grade is uneven due to railroad tracks. Additionally, the City will use Walk Score® to improve walkability to key destinations and to enhance areas where car-ownership and usage is lower than the citywide average.

Outcome 4: Engage the Oakland Community in Creating Vibrant Pedestrian Environments. There are five actions within this outcome. The City will reinvigorate existing communication methods and establish new protocols for engaging the public about pedestrian projects and enabling community-determined pedestrian projects. The City will also partner with groups that specialize in addressing specific vulnerable populations — for example, the Mayor’s Commission on Persons with Disabilities — to understand to the experiences of persons with disabilities.

Outcome 5: Improve Metrics, Evaluations, Funding, and Tools for Creating Pedestrian Environments. There are nine actions within this outcome. The City will develop and implement a host of data collection, data analysis, and data reporting efforts, as well as ensure adequate staff training in pedestrian design standards to ensure that the Plan implementation is efficient, accountable, effective, and equitably distributed.

Bicycle Master Plan Let’s Bike Oakland

Let’s Bike Oakland!, the City of Oakland’s Bike Plan, was adopted on July 9, 2019 and identifies programs and projects to improve the bike riding in Oakland. The adopted plan includes four main goals regarding access, health and safety, affordability and collaboration. Each goal outlines specific objectives and actions related to the goal. The following actions are applicable to the project:

- **Access Goal, Objective A:** Increase access to jobs, education, retail, park and libraries, schools, recreational centers, transit, and other neighborhood destinations

Action A1: Build low-stress facilities that provide access to local destinations in every neighborhood in Oakland

Action A2: Increase the supply of bicycle parking at neighborhood destinations like schools, medical centers, grocery stores, and government offices

Action A3: Evaluate the potential to combine transportation-impact fees for new developments within the same neighborhood to provide continuous, high-quality bicycle facilities

- **Access Goal, Objective C:** Support public transit service

Action C1: Design bikeways that provide first and last mile connections to transit

Action C3: Install more secure, long-term bicycle parking at Oakland's BART stations, Amtrak stations, transit center and ferry terminal

- **Access Goal, Objective F:** Serve people with disabilities

Action F1: Ensure that bikeway designs do not create additional barriers for people with disabilities

- **Health & Safety Goal, Objective C:** Reduce air pollution, asthma rates and greenhouse gas emissions

Action C1: Build a bicycle network that encourages Oaklanders to choose modes of transportation other than driving by providing low-stress facilities and integrating bikes with transit

Action C2: Achieve a 20 percent reduction in vehicle miles traveled annually as residents, workers and visitors meet daily needs by walking, bicycling and using transit, consistent with the City's Energy and Climate Action Plan (2018)

- **Affordability Goal, Objective A:** Reduce the overall household costs for all Oaklanders

Action A1: Build a bicycle network that provides low-stress bicycle facilities for people in low-income neighborhoods, encouraging the use of bicycling as low-cost transportation

Action A2: Build bikeways that provide first and last mile connections to public transit stations and major bus stops

- **Affordability Goal, Objective B:** Reduce long-term transportation costs by reducing the need for vehicle ownership or for parking in new developments

Action B1: Update the Oakland Planning Code to eliminate parking minimums

Action B2: Revise the menu of Transportation Demand Management options to include bike share passes, fix-it stations and hydration stations

Action B3: Update Oakland's Bicycle Parking Ordinance to determine whether it reflects the type and quantity of parking needed in new developments and major renovations

Action B4: Update the Oakland Planning Code to require end-of-trip facilities such as showers and changing rooms in major non-residential developments

City of Oakland Public Transit and Alternative Modes Policy

The City of Oakland adopted the Public Transit and Alternative Modes Policy, also known as the “Transit-First Policy,” in October 2006 (City Council Resolution 73036 C.M.S.). This resolution supports public transit and other alternatives to single occupant vehicles and directs the LUTE to incorporate “various methods of expediting transit services on designated streets and encouraging greater transit use.” The resolution also directs the City, in constructing and maintaining its transportation infrastructure, to resolve any conflicts between public transit and single occupant vehicles on City streets in favor of the transportation mode that provides the greatest mobility for people rather than vehicles giving due consideration to the environment, public safety, economic development, health, and social equity impacts.

City of Oakland Complete Street Policy

The City of Oakland adopted the Complete Street Policy to Further Ensure that Oakland Streets Provide Safe and Convenient Travel Options for all Users in January 2013 (City Council Resolution 84204 C.M.S.). This resolution, consistent with the California Complete Streets Act of 2008, directs the City of Oakland to plan, design, construct, operate, and maintain the street network in the City to accommodate safe, convenient, comfortable travel for all modes, including pedestrians, bicyclists, transit users, motorists, trucks, and emergency vehicles.

Oakland Standard Conditions of Approval (SCAs)

The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) in 2008, and they have since been amended and revised several times.² Like other regulations, the SCAs apply to projects in the City regardless of their CEQA impacts. The SCAs are not mitigation measures and therefore are not listed as mitigation measures. If the Project Modifications are approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project Modifications. With implementation of the SCAs for the Project Modifications, some of the mitigation measures from the 2009 EIR are no longer needed, and this SEIR notes when that occurs.³ Below are the SCAs relevant to transportation and circulation:

- **SCA TRANS-1 (SCA 76): Bicycle Parking.** *Prior to issuance of a demolition, grading, or building permit.* The project applicant shall comply with the City of Oakland Bicycle Parking Requirements (chapter 17.118 of the Oakland Planning Code). The project drawings submitted for construction-related permits shall demonstrate compliance with the requirements.
- **SCA TRANS-2 (SCA 77): Transportation Improvements.** *Prior to issuance of a demolition, grading, or building permit.* The project applicant shall implement the recommended on- and off-site transportation-related improvements contained within the Transportation Impact Review for the project (e.g., signal timing adjustments, restriping,

² A revised set of SCAs was recently published by the City of Oakland December 2020.

³ Where SCAs replace mitigation measures for the Project Modifications, such replacement does not indicate that the Project Modifications would have new or substantially more severe environmental impacts than the Approved Project. Rather, it indicates that the SCAs have become standard conditions of project approval.

signalization, traffic control devices, roadway reconfigurations, transportation demand management measures, and transit, pedestrian and bicyclist amenities). The project applicant is responsible for funding and installing the improvements and shall obtain all necessary permits and approvals from the City and/or other applicable regulatory agencies such as, but not limited to, Caltrans (for improvements related to Caltrans facilities) and the CPUC (for improvements related to railroad crossings), prior to installing the improvements. To implement this measure for intersection modifications, the project applicant shall submit Plans, Specifications, and Estimates to the City for review and approval. All elements shall be designed to applicable City standards in effect at the time of construction and all new or upgraded signals shall include these enhancements as required by the City. All other facilities supporting vehicle travel and alternative modes through the intersection shall be brought up to both City standards and ADA standards (according to Federal and State Access Board guidelines) at the time of construction. Current City Standards call for, among other items, the elements listed below:

- a. 2070L Type Controller with cabinet accessory
- b. GPS communication (clock)
- c. Accessible pedestrian crosswalks according to Federal and State Access Board guideline with signals (audible and tactile)
- d. Countdown pedestrian head module switch out
- e. City Standard ADA wheelchair ramps
- f. Video detection on existing (or new, if required)
- g. Mast arm poles, full activation (where applicable)
- h. Polara Push buttons (full activation)
- i. Bicycle detection (full activation)
- j. Pull boxes
- k. Signal interconnect and communication with trenching (where applicable), or through existing conduit (where applicable), 600 feet maximum
- l. Conduit replacement contingency
- m. Fiber switch
- n. PTZ camera (where applicable)
- o. Transit Signal Priority equipment consistent with other signals along corridor
- p. Signal timing plans for the signals in the coordination group
- q. By-directional curb ramps (where feasible, and if project is on a street corner)
- r. Upgrade ramps on receiving curb (where feasible, and if project is on a street corner)

- **SCA TRANS-3 (SCA 78): Transportation and Parking Demand Management.** *Prior to issuance of a final inspection of the building permit.*
 - a. **Transportation and Parking Demand Management (TDM) Plan:** The project applicant shall submit a TDM plan for review and approval by the City.
 - i. The goals of the TDM Plan shall be the following:
 - Reduce vehicle traffic and parking demand generated by the project to the maximum extent practicable.
 - Achieve the following project vehicle trip reductions (VTR):
 - Projects generating 50 to 99 net new a.m. or p.m. peak hour vehicle trips: 10% VTR.
 - Projects generating 100 or more net new a.m. or p.m. peak hour vehicle trips: 20% VTR.
 - Increase pedestrian, bicycle, transit, and carpool/vanpool modes of travel. All four modes of travel shall be considered, as appropriate.
 - Enhance the City’s transportation system, consistent with City policies and programs.
 - ii. TDM Plan should include the following:
 - Baseline existing conditions of parking and curbside regulations within the surrounding neighborhood that could affect the effectiveness of TDM strategies, including inventory of parking space and occupancy if applicable.
 - Proposed TDM strategies to achieve VTR goals (see below).
 - iii. For employers with 100 or more employees at the subject site, the TDM Plan shall also comply with the requirements of the Oakland Municipal Code Chapter 10.68 Employer-Based Trip Reduction Program.
 - iv. The following TDM strategies must be incorporated into a TDM Plan based on a project location or other characteristics. When required, these mandatory strategies should be identified as a credit toward a project’s VTR.

Improvement	Required by code or when...
Bus boarding bulbs or islands	<ul style="list-style-type: none"> • A bus boarding bulb or island does not already exist, and a bus stop is located along the project frontage; and/or • A bus stop along the project frontage serves a route with 15 minutes or better peak hour service and has a shared bus-bike lane curb
Bus shelter	<ul style="list-style-type: none"> • A stop with no shelter is located within the project frontage, or • The project is located within 0.10 miles of a flag stop with 25 or more boardings per day
Concrete bus pad	<ul style="list-style-type: none"> • A bus stop is located along the project frontage and a concrete bus pad does not already exist
Curb extensions or bulb-outs	<ul style="list-style-type: none"> • Identified as an improvement within site analysis

Improvement	Required by code or when...
Implementation of a corridor-level bikeway improvement	<ul style="list-style-type: none"> • A buffered Class II or Class IV bikeway facility is in a local or county adopted plan within 0.10 miles of the project location; and • The project would generate 500 or more daily bicycle trips
Implementation of a corridor-level transit capital improvement	<ul style="list-style-type: none"> • A high-quality transit facility is in a local or county adopted plan within 0.25 miles of the project location; and • The project would generate 400 or more peak period transit trips
Installation of amenities such as lighting; pedestrian-oriented green infrastructure, trees, or other greening landscape; and trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan.	<ul style="list-style-type: none"> • Always required
Installation of safety improvements identified in the Pedestrian Master Plan (such as crosswalk striping, curb ramps, count down signals, bulb outs, etc.)	<ul style="list-style-type: none"> • When improvements are identified in the Pedestrian Master Plan along project frontage or at an adjacent intersection
In-street bicycle corral	<ul style="list-style-type: none"> • A project includes more than 10,000 square feet of ground floor retail, is located along a Tier 1 bikeway, and on-street vehicle parking is provided along the project frontages.
Intersection improvements^a	<ul style="list-style-type: none"> • Identified as an improvement within site analysis
New sidewalk, curb ramps, curb and gutter meeting current City and ADA standards	<ul style="list-style-type: none"> • Always required
No monthly permits and establish minimum price floor for public parking^b	<ul style="list-style-type: none"> • If proposed parking ratio exceeds 1:1000 sf. (commercial)
Parking garage is designed with retrofit capability	<ul style="list-style-type: none"> • Optional if proposed parking ratio exceeds 1:1.25 (residential) or 1:1000 sf. (commercial)
Parking space reserved for car share	<ul style="list-style-type: none"> • If a project is providing parking and a project is located within downtown. One car share space reserved for buildings between 50 – 200 units, then one car share space per 200 units.
Paving, lane striping or restriping (vehicle and bicycle), and signs to midpoint of street section	<ul style="list-style-type: none"> • Typically required
Pedestrian crossing improvements	<ul style="list-style-type: none"> • Identified as an improvement within site analysis
Pedestrian-supportive signal changes^c	<ul style="list-style-type: none"> • Identified as an improvement within operations analysis
Real-time transit information system	<ul style="list-style-type: none"> • A project frontage block includes a bus stop or BART station and is along a Tier 1 transit route with 2 or more routes or peak period frequency of 15 minutes or better
Relocating bus stops to far side	<ul style="list-style-type: none"> • A project is located within 0.10 mile of any active bus stop that is currently near-side
Signal upgrades^d	<ul style="list-style-type: none"> • Project size exceeds 100 residential units, 80,000 sf. of retail, or 100,000 sf. of commercial; and • Project frontage abuts an intersection with signal infrastructure older than 15 years
Transit queue jumps	<ul style="list-style-type: none"> • Identified as a needed improvement within operations analysis of a project with frontage along a Tier 1 transit route with 2 or more routes or peak period frequency of 15 minutes or better

Improvement	Required by code or when...
Trenching and placement of conduit for providing traffic signal interconnect	<ul style="list-style-type: none"> • Project size exceeds 100 units, 80,000 sf. of retail, or 100,000 sf. of commercial; and • Project frontage block is identified for signal interconnect improvements as part of a planned ITS improvement; and • A major transit improvement is identified within operations analysis requiring traffic signal interconnect
Unbundled parking	<ul style="list-style-type: none"> • If proposed parking ratio exceeds 1:1.25 (residential)

NOTES:

- ^a Including but not limited to visibility improvements, shortening corner radii, pedestrian safety islands, accounting for pedestrian desire lines.
- ^b May also provide a cash incentive or transit pass alternative to a free parking space in commercial properties.
- ^c Including but not limited to reducing signal cycle lengths to less than 90 seconds to avoid pedestrian crossings against the signal, providing a leading pedestrian interval, provide a “scramble” signal phase where appropriate.
- ^d Including typical traffic lights, pedestrian signals, bike actuated signals, transit-only signals.

- v. Other TDM strategies to consider include, but are not limited to, the following:
- Inclusion of additional long- and short-term bicycle parking that meets the design standards set forth in chapter five of the Bicycle Master Plan, and Bicycle Parking Ordinance (chapter 17.117 of the Oakland Planning Code), and shower and locker facilities in commercial developments that exceed the requirement.
 - Construction of and/or access to bikeways per the Bicycle Master Plan; construction of priority Bikeway Projects, on-site signage and bike lane striping.
 - Installation of safety elements per the Pedestrian Master Plan (such as cross walk striping, curb ramps, count-down signals, bulb outs, etc.) to encourage convenient and safe crossing at arterials, in addition to safety elements required to address safety impacts of the project.
 - Installation of amenities such as lighting, street trees, trash receptacles per the Pedestrian Master Plan Update, the Master Street Tree List and Tree Planning Guidelines (which can be viewed at <http://www2.oaklandnet.com/oakca1/groups/pwa/documents/report/oak042662.pdf> and <http://www2.oaklandnet.com/oakca1/groups/pwa/documents/form/oak025595.pdf> respectively) and any applicable streetscape plan.
 - Construction and development of transit stops/shelters, pedestrian access, way finding signage, and lighting around transit stops per transit agency plans or negotiated improvements.
 - Direct on-site sales of transit passes purchased and sold at a bulk group rate (through programs such as AC Transit Easy Pass or a similar program through another transit agency).
 - Provision of a transit subsidy to employees or residents, determined by the Project Applicant and subject to review by the City, if the employees or residents use transit or commute by other alternative modes.
 - Provision of an ongoing contribution to service to the area between the project and nearest mass transit station prioritized as follows: 1) Contribution to AC

Transit bus service; 2) Contribution to an existing area shuttle or streetcar service; and 3) Establishment of new shuttle service. The amount of contribution (for any of the above scenarios) would be based upon the cost of establishing new shuttle service (Scenario 3).

- Guaranteed ride home program for employees, either through 511.org or through separate program.
- Pre-tax commuter benefits (commuter checks) for employees.
- Free designated parking spaces for on-site car-sharing program (such as City Car Share, Zip Car, etc.) and/or car-share membership for employees or tenants.
- Onsite carpooling and/or vanpooling program that includes preferential (discounted or free) parking for carpools and vanpools.
- Distribution of information concerning alternative transportation options.
- Parking spaces sold/leased separately for residential units. Charge employees for parking or provide a cash incentive or transit pass alternative to a free parking space in commercial properties.
- Parking management strategies; including attendant/valet parking and shared parking spaces.
- Requiring tenants to provide opportunities and the ability to work off-site.
- Allow employees or residents to adjust their work schedule in order to complete the basic work requirement of five eight-hour workdays by adjusting their schedule to reduce vehicle trips to the worksite (e.g., working four, ten-hour days; allowing employees to work from home two days per week).
- Provide or require tenants to provide employees with staggered work hours involving a shift in the set work hours of all employees at the workplace or flexible work hours involving individually determined work hours.

The TDM Plan shall indicate the estimated VTR for each strategy proposed based on published research or guidelines where feasible. For TDM Plans containing ongoing operational VTR strategies, the Plan shall include an ongoing monitoring and enforcement program to ensure the Plan is implemented on an ongoing basis during project operation. If an annual compliance report is required, as explained below, the TDM Plan shall also specify the topics to be addressed in the annual report.

- b. **TDM Implementation – Physical Improvements:** For VTR strategies involving physical improvements, the project applicant shall obtain the necessary permits/approvals from the City and install the improvements prior to the completion of the project.
- c. **TDM Implementation – Operational Improvements:** For projects that generate 100 or more net new a.m. or p.m. peak hour vehicle trips and contain ongoing operational VTR strategies, the project applicant shall submit an annual compliance report for the first five years following completion of the project (or completion of each phase for phased projects) for review and approval by the City. The annual report shall document the status and effectiveness of the TDM program, including the actual VTR achieved by the project during operation. If deemed necessary, the City may elect to have a peer review consultant, paid for by the project applicant, review the annual report. If timely reports

are not submitted and/or the annual reports indicate the project applicant has failed to implement the TDM Plan, the project will be considered in violation of the Conditions of Approval and the City may initiate enforcement action as provided for in these Conditions of Approval. The project shall not be considered in violation of this Condition if the TDM Plan is implemented but the VTR goal is not achieved.

- **SCA TRANS-4 (SCA 79): Transportation Impact Fee.** *Prior to issuance of a demolition, grading, or building permit.* The project applicant shall comply with the requirements of the City of Oakland Transportation Impact Fee ordinance (chapter 15.74 of the Oakland Municipal Code).
- **SCA TRANS-5 (SCA 80): Railroad Crossings.** *Prior to issuance of a demolition, grading, or building permit.* The project applicant shall submit for City review and approval a Diagnostic Review to evaluate potential impacts to at-grade railroad crossings resulting from project-related traffic. In general, the major types of impacts to consider are collisions between trains and vehicles, trains and pedestrians, and trains and bicyclists. The Diagnostic Review shall include specific traffic elements, such as roadway and rail description, accident history, traffic volumes (all modes, including pedestrian and bicyclist crossing movements), train volumes, vehicular speeds, train speeds, and existing rail and traffic control.

Where the Diagnostic Review identifies potentially substantially dangerous crossing conditions at at-grade railroad crossings caused by the project, measures relative to the project's traffic contribution to the crossings shall be applied through project redesign and/or incorporation of the appropriate measures to reduce potential adverse impacts at the crossings. These measures may include, without limitation, the following:

- a. Installation of grade separations at crossings, i.e., physically separating roads and railroad tracks by constructing overpasses or underpasses
- b. Improvements to warning devices at existing highway rail crossings that are impacted by project traffic
- c. Installation of additional warning signage
- d. Improvements to traffic signaling at intersections adjacent to crossings, e.g., signal preemption
- e. Installation of median separation to prevent vehicles from driving around railroad crossing gates
- f. Where sound walls, landscaping, buildings, etc. would be installed near crossings, maintaining the visibility of warning devices and approaching trains
- g. Prohibition of parking within 100 feet of crossings to improve the visibility of warning devices and approaching trains
- h. Construction of pull-out lanes for buses and vehicles transporting hazardous materials
- i. Installation of vandal-resistant fencing or walls to limit the access of pedestrians onto the railroad right-of-way
- j. Elimination of driveways near crossings
- k. Increased enforcement of traffic laws at crossings

1. Rail safety awareness programs to educate the public about the hazards of highway-rail grade crossings

Any proposed improvements must be coordinated with CPUC and affected railroads, and all necessary permits/approvals obtained, including a GO 88-B Request (Authorization to Alter Highway Rail Crossings). The project applicant shall implement the approved measures during construction of the project.

- **SCA TRANS-6 (SCA 81): Plug-In Electric Vehicle (PEV) Charging Infrastructure.**
Prior to issuance of a demolition, grading, or building permit.
 - a. **PEV-Ready Parking Spaces:** The applicant shall submit, for review and approval of the Building Official and the Zoning Manager, plans that show the location of parking spaces equipped with full electrical circuits designated for future PEV charging (i.e., “PEV-Ready”) per the requirements of Chapter 15.04 of the Oakland Municipal Code. Building electrical plans shall indicate enough electrical capacity to supply the required PEV-Ready parking spaces.
 - b. **PEV-Capable Parking Spaces:** The applicant shall submit, for review and approval of the Building Official, plans that show the location of inaccessible conduit to supply PEV-capable parking spaces per the requirements of Chapter 15.04 of the Oakland Municipal Code. Building electrical plans shall indicate sufficient electrical capacity to supply the required PEV-capable parking spaces.
 - c. **ADA-Accessible Parking Spaces:** The applicant shall submit, for review and approval of the Building Official, plans that show the location of future accessible EV parking spaces as required under Title 24 Chapter 11B Table 11B-228.3.2.1, and specify plans to construct all future accessible EV parking spaces with appropriate grade, vertical clearance, and accessible path of travel to allow installation of accessible EV charging station(s).

Transportation Impact Review Guidelines (TIRG)

On September 21, 2016, the City of Oakland’s Planning Commission directed staff to update the City of Oakland’s CEQA Thresholds of Significance Guidelines related to transportation impacts in order to implement the directive from SB 743 to modify local environmental review processes by removing automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, as a significant impact on the environment pursuant to CEQA. The Planning Commission direction aligns with the December 2018 guidance from the Governor’s Office of Planning and Research and the City’s approach to transportation impact analysis with adopted plans and policies related to transportation, which promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses. Consistent with Planning Commission direction and SB 743 requirements, the City of Oakland published its revised TIRG in 2017 to guide the evaluation of the transportation impacts associated with land use development projects.

The City of Oakland’s TIRG provides direction on the scope of the study that the City of Oakland requires in evaluating the potential transportation impact of proposed land use development projects. The TIRG ensures that potentially significant impacts are studied according to the City’s thresholds of significance under CEQA. The Guidelines also provide direction on appropriate mitigations for significant impacts in the context of the overall policies and objectives of the City.

IV.B.3 Impacts and Mitigation Measures

Significance Criteria

The City of Oakland has established thresholds of significance for CEQA impacts, which incorporate those in Appendix G of the CEQA Guidelines (City of Oakland, 2016). As described above, these thresholds have been updated to remove automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, to VMT analysis. Based on these thresholds the Project Modifications would have a significant adverse impact related to the environment if it would:

- A. Conflict with a plan, ordinance, or policy addressing the safety or performance of the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths (except for automobile level of service or other measures of vehicle delay)
- B. Cause substantial additional vehicle miles traveled (VMT) per capita, per service population, or other appropriate efficiency measure
- C. Substantially induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow lanes) or by adding new roadways to the network

Methodology

Consistent with CEQA guidance, this SEIR is required to evaluate only the changes in the project, circumstances, or new information that could give rise to new significant environmental impacts or substantially more severe environmental impacts than were analyzed in the 2009 EIR. As such, in accordance with CEQA Guidelines Section 15163, this SEIR contains information necessary to disclose environmental impacts from the Project Modifications that were not analyzed in the 2009 or would be substantially more severe than anticipated by the 2009 EIR. This SEIR evaluates the Project Modifications using the City's current methodology, significance criteria, and thresholds. The analysis relies on the environmental baseline, which is the physical circumstances existing at the time the NOP was published in September 2018, and also compares the Project Modification to the Approved Project to determine if the modifications create any new or substantially more severe impacts on the environment. This SEIR discusses new City requirements and analysis methods established since preparation of the 2009 EIR, such as the incorporation of the City's SCAs, which would be required conditions of approval for the Project Modifications.

Changes that have occurred to the environmental and regulatory setting since preparation of the 2009 EIR are described above. As described in more detail above, the City's CEQA Thresholds of Significance and analysis methodology for transportation and circulation have changed since the preparation of the 2009 EIR and now assess impacts using VMT rather than LOS. Most mitigation measures identified in the 2009 EIR have been fulfilled or are currently being fulfilled. Therefore, the impact discussions and analyses below focus on the activities associated with the Project Modifications and the potential for transportation impacts associated with those activities that were not previously disclosed in the 2009 EIR.

Trip Generation

Trip generation is an estimate of the number of autos that would likely access a proposed project. Trip generation data published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual* was used as a starting point to estimate auto trip generation in the 2009 EIR and for this SEIR. Since preparation of the 2009 EIR, ITE has released three new editions of their *Trip Generation Manual*. Trip generation data published in *Trip Generation Manual* (Tenth Edition, 2017) was used as a starting point to estimate auto trip generation resulting from the Project Modifications.

Table IV.B-1 summarizes the trip generation for the Project Modifications. The Project Modifications are estimated to generate 2,830 daily trips and 175 a.m. peak and 230 p.m. peak hour trips.

**TABLE IV.B-1
 PROJECT MODIFICATION TRIP GENERATION^a**

Land Use	Units ^b	ITE Code	Daily	a.m. Peak Hour			p.m. Peak Hour		
				In	Out	Total	In	Out	Total
Multi-Family Housing (Mid-Rise)	600 DU	221 ^c	3,270	56	160	216	161	103	264
Marina	166 Berths ^d	420 ^e	410	4	8	12	21	14	35
<i>ITE Auto Trip Generation</i>			3,680	60	168	228	182	117	299
<i>City of Oakland Trip Generation Adjustment^f</i>			-850	-14	-39	-53	-42	-27	-69
Total Proposed Project Auto Trip Generation			2,830	46	129	175	140	90	230

NOTES:

- ^a Daily trip generation estimates are rounded up to the nearest 10 and peak hour trip generations estimates are rounded up to the nearest 1.
- ^b DU = Dwelling Units; Berths = number of proposed recreational boat slips
- ^c ITE Trip Generation (10th Edition, 2017) land use category 221 (Multifamily housing, midrise):
 Daily: $T=5.44 \times X$
 a.m. Peak Hour: $T=0.36 \times X$ (26% in; 74% out)
 p.m. Peak Hour: $T=0.44 \times X$ (61% in; 39% out)
- ^d While the transportation analysis assumes 166 additional berths, the Project Modifications would include 158 new berths in addition to the Approved Project. In addition, for the purposes of a conservative analysis, the landing dock infrastructure is treated as the physical equivalent of two marina berths. The combined total of 160 berths is still less than the conservative assumption of 166 berths used in this analysis.
- ^e ITE Trip Generation (10th Edition, 2017) land use category 420 (Marina)
 Daily: $T=2.41 \times X$
 a.m. Peak Hour: $T=0.07 \times X$ (33% in; 67% out)
 p.m. Peak Hour: $T=0.21 \times X$ (60% in; 40% out)
- ^f The 23.1% trip reduction is based on the City of Oakland's *Transportation Impact Review Guidelines* for development in an urban environment over one mile from a BART station.

SOURCE: Fehr & Peers, 2019 (Appendix C)

ITE data is based on data collected at mostly single-use, suburban sites where driving is often the only travel mode. The Project Modifications would be a part of a dense, mixed-use urban environment where many trips would be walk, bike, or transit trips. Since the Project site is just under one mile away from the Lake Merritt BART station and the Jack London Square Amtrak station and is in an urban environment, the City of Oakland's TIRG recommends a 23.1-percent reduction from the ITE-based trip generation to account for non-auto trips. This reduction is based on Census commute data for Alameda County from the 2014 five-year estimates of the

American Community Survey (ACS), which shows that the non-automobile mode share for urban areas over one mile away from a BART station is about 23.1-percent.^{4,5}

Trip generation for the Project Modifications' residential land use was estimated using the ITE land use category "Multifamily Housing (Mid-Rise)" (land use code 221). The trip generation for the recreational marina berths was estimated using the ITE land use category "Marina" (land use code 420). Both are consistent with land use categories used in the 2009 EIR for the Approved Project.⁶

When trip generation estimates were completed for the Approved Project in the 2009 EIR, ITE's *Trip Generation Manual* (7th Edition, 2003) was utilized and the City of Oakland had no recommended trip generation adjustment factors. This SEIR does not reevaluate Approved Project trip generation. However, if trip generation were estimated today for the Approved Project, it would be lower than that assumed in the 2009 EIR. Further, if trip generation were estimated today for the Modified Project, it also would likely be lower than that assumed for the Approved Project in the 2009 EIR. Nonetheless, and for the purposes of a conservative analysis, this SEIR attributes new trips to the Project Modifications as specified above. This SEIR analyzes the potential environmental impacts of the trip generation resulting from the Project Modifications in this section as well as sections IV.C, *Air Quality*, IV.G, *Noise*, and IV.N, *Greenhouse Gas Emissions*.

Active and Transit Modes Trip Generation

Consistent with the City of Oakland's TIRG, **Table IV.B-2** presents the trip generation estimates for all travel modes for the Project Modifications.

⁴ The City of Oakland's TIRG defines an urban environment as an area with a density of 10,000 persons-per-square-mile or greater. Based on the project description, the Brooklyn Basin project (approved plus proposed project) would have a density greater than 10,000 persons-per-square-mile.

⁵ The proposed project is approximately 0.9 miles away from the Lake Merritt BART station. This analysis conservatively applies rates assuming it is greater than one mile away from a BART station.

⁶ The on-demand water taxi service is expected to operate up to three trips during commute hours (up to six round trips per day) on weekdays only. Due to the limited expected service, the proximity to the Jack London Square Ferry Terminal, and no dedicated parking for water taxi riders, it is assumed the water taxi would be used by Brooklyn Basin residents only and therefore generate no auto trips. Nonetheless, for the purposes of a conservative analysis, trip generation estimates in this analysis treat the landing dock infrastructure as the physical equivalent of two marina berths. If the water taxi switches to a scheduled service, additional analysis would not be needed to determine trip generation impacts unless parking is provided for the scheduled service. However, it should be noted that the City of Oakland has no discretionary land use or other regulatory authority over water taxi service in the San Francisco Bay and that both on demand and scheduled small ferry service could take place with or without approval of the Project Modifications.

**TABLE IV.B-2
 TRIP GENERATION BY TRAVEL MODE^a**

Mode	Mode Share Adjustment Factors^b	Daily	a.m. Peak Hour	p.m. Peak Hour
Automobile	76.9%	2,830	175	230
Transit	17.9%	660	41	53
Bike	1.9%	70	4	6
Walk	2.0%	80	4	6
Total Trips		3,640	224	295

NOTES:

- ^a Based on the active and transit mode share factors outlined in the City of Oakland's TIRG, assuming the Project site is in an urban environment (density of over 10,000 people per square mile) more than 1.0 mile from a BART station.
- ^b Percentages do not add to 100%.

SOURCE: Fehr & Peers, 2019 (Appendix C)

2009 Impacts that Require No Further Analysis in this SEIR

Some of the transportation impacts identified for the Approved Project in the 2009 EIR, particularly those relating to trip delay and Levels of Service, are not analyzed with respect to the Project Modifications in this SEIR based on changes in state and local law concerning CEQA's significance criteria related to transportation impacts. The 2009 EIR analyzed the Approved Project against criteria that, while applicable to the CEQA analysis for the Approved Project when that EIR was prepared, are no longer applicable to, and inconsistent with, current CEQA analysis approaches conducted by the City of Oakland. For transportation, these criteria include intersection peak-hour LOS or percentage of contribution to intersection traffic increase.

The 2009 EIR evaluated the impacts of the Approved Project on the transportation system primarily using LOS per the City of Oakland Significance Criteria at the time. The following impacts identified in the 2009 EIR are due to traffic as measured by LOS or percentage of contribution to intersection traffic growth, which are no longer significance criteria for CEQA, and therefore are not applicable to the transportation impacts of the Project Modifications:

- Impact B.1a: Traffic generated by Phase 1 of the project would add more than ten vehicles to the unsignalized intersection of Embarcadero and Oak Street, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant.
- Impact B.1b: The LOS F conditions at the signalized intersection of 5th Street and Broadway, which would prevail during the p.m. peak hour under 2010 baseline conditions, would worsen with the addition of traffic generated by Phase 1 of the project. The project-generated increases in vehicle delay on a critical movement would exceed the four-second threshold of significance.
- Impact B.1c: The signalized intersection of 6th and Jackson Streets at the I-880 Northbound On-Ramp would degrade from LOS E to LOS F during the p.m. peak hour with the addition of traffic generated by Phase 1 of the project.

- Impact B.1d: Traffic generated by Phase 1 of the project would add more than ten vehicles to the unsignalized intersection of Embarcadero and 5th Avenue, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the p.m. peak hour.
- Impact B.1e: Traffic generated by Phase 1 of the project would add more than ten vehicles to the unsignalized intersection of Embarcadero and I-880 Northbound Off-Ramp – 6th Avenue, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant, during the p.m. peak hour.
- Impact B.2a: The signalized intersection of Atlantic Avenue and Webster Street would degrade from LOS E to LOS F during the a.m. peak hour with the addition of traffic generated by buildout of the project.
- Impact B.2b: Traffic generated by buildout of the project would add more than ten vehicles to the unsignalized intersection of Embarcadero and Broadway, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the p.m. peak hour.
- Impact B.2c: The LOS F conditions at the signalized intersection of 5th Street and Broadway, which would prevail during the p.m. peak hour under 2025 baseline conditions, would worsen with the addition of traffic generated by buildout of the project. The project-generated increases in vehicle delay would exceed the two-second threshold of significance.
- Impact B.2d: The signalized intersection of 5th and Oak Streets at the I-880 Southbound On-Ramp would degrade from LOS E to LOS F during the p.m. peak hour with the addition of traffic generated by buildout of the project.
- Impact B.2e: The signalized intersection of 6th and Jackson Streets at the I-880 Northbound On-Ramp would degrade from LOS E to LOS F during the a.m. peak hour with the addition of traffic generated by buildout of the project, and the LOS F conditions that, which would prevail during the p.m. peak hour under 2025 baseline conditions, would worsen (total intersection average vehicle delay would exceed the two-second threshold of significance) with the addition of traffic generated by buildout of the project.
- Impact B.2f: The LOS F conditions at the signalized intersection of West Grand Avenue and Harrison Street, which would prevail during the a.m. peak hour under 2025 baseline conditions, would worsen (total intersection average vehicle delay would exceed the two-second threshold of significance) with the addition of traffic generated by buildout of the project.
- Impact B.2g: The LOS E conditions at the signalized intersection of Lakeshore Avenue and Foothill Boulevard, which would prevail during the a.m. peak hour under 2025 baseline conditions, would worsen (an increase in the total intersection average vehicle delay of more than four seconds) with the addition of traffic generated by buildout of the project.
- Impact B.2h: The LOS F conditions at the signalized intersection of Lakeshore Avenue and MacArthur Boulevard, which would prevail during the p.m. peak hour under 2025 baseline conditions, would worsen (an increase in the average vehicle delay for a critical movement of more than four seconds) with the addition of traffic generated by buildout of the project.
- Impact B.2i: The LOS E conditions at the signalized intersection of Lakeshore Avenue and Lake Park Avenue, which would prevail during the p.m. peak hour under 2025 baseline conditions, would worsen (an increase in the average vehicle delay for a critical movement of more than six seconds) with the addition of traffic generated by buildout of the project.

- Impact B.2j: The LOS F conditions at the intersection of Embarcadero and 5th Avenue, which would prevail during the p.m. peak hour under 2025 baseline unsignalized conditions, would continue under traffic signal control (installed by 2010 [see Mitigation Measure B.1d]) with the addition of traffic generated by buildout of the project.
- Impact B.2k: The intersection of Embarcadero and I-880 Northbound Off-Ramp (to be signalized by 2010 [see Mitigation Measure B.1e]) would degrade from LOS B to LOS F during the p.m. peak hour with the addition of traffic generated by buildout of the project.
- Impact B.2l: Traffic generated by buildout of the project would add more than ten vehicles to the unsignalized intersection of Embarcadero and I-880 Southbound On-Ramp – 10th Avenue, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the p.m. peak hour.
- Impact B.2m: The signalized intersection of 5th Avenue and 7th/8th Streets would degrade from LOS D to LOS F during the p.m. peak hour with the addition of traffic generated by buildout of the project.
- Impact B.2n: The signalized intersection of 14th Avenue and 7th/12th Streets (Southbound) would degrade from LOS E to LOS F during the p.m. peak hour with the addition of traffic generated by buildout of the project.
- Impact B.2o: The signalized intersection of Foothill Boulevard and 14th Avenue (Westbound) would degrade from LOS D to LOS E during the a.m. peak hour with the addition of traffic generated by buildout of the project.
- Impact B.2p: The LOS F conditions at the signalized intersection of Foothill Boulevard and 14th Avenue (Eastbound), which would prevail during the p.m. peak hour under 2025 baseline conditions, would worsen (total intersection average vehicle delay would exceed the two-second threshold of significance) with the addition of traffic generated by buildout of the project.
- Impact B.2q: The LOS E conditions at the signalized intersection of 16th Street and 23rd Avenue, which would prevail during the p.m. peak hour under 2025 baseline conditions, would worsen (an increase in the average vehicle delay for a critical movement of more than six seconds) with the addition of traffic generated by buildout of the project.
- Impact B.3a: Traffic generated by buildout of the project would contribute at least five percent of the cumulative traffic increases at the signalized intersection of Atlantic Avenue and Webster Street in Alameda during the a.m. and p.m. peak hours, as measured by the difference between existing and cumulative (with project) conditions.
- Impact B.3b: Traffic generated by buildout of the project would contribute more than five percent of the cumulative traffic increases at the unsignalized intersection of Embarcadero and Broadway during the p.m. peak hour, as measured by the difference between existing and cumulative (with project) conditions.
- Impact B.3c: Traffic generated by buildout of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of 5th Street and Broadway during the p.m. peak hour, as measured by the difference between existing and cumulative (with project) conditions.
- Impact B.3d: Traffic generated by buildout of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of 5th and Oak

Streets at the I-880 Southbound On-Ramp during the p.m. peak hour, as measured by the difference between existing and cumulative (with project) conditions.

- Impact B.3e: Traffic generated by buildout of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of 6th and Jackson Streets at the I-880 Northbound On-Ramp during the a.m. and p.m. peak hours, as measured by the difference between existing and cumulative (with project) condition.
- Impact B.3f: Traffic generated by buildout of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of Lakeshore Avenue and Foothill Boulevard during the a.m. peak hour, as measured by the difference between existing and cumulative (with project) conditions.
- Impact B.3g: Traffic generated by buildout of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of Lakeshore Avenue and MacArthur Boulevard during the p.m. peak hour, as measured by the difference between existing and cumulative (with project) conditions.
- Impact B.3h: Traffic generated by buildout of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of Lakeshore Avenue and Lake Park Avenue during the p.m. peak hour, as measured by the difference between existing and cumulative (with project) conditions.
- Impact B.3i: Traffic generated by buildout of the project would contribute more than five percent of the cumulative traffic increases at the unsignalized intersection of Embarcadero and 5th Avenue during the p.m. peak hour, as measured by the difference between existing and cumulative (with project) conditions.
- Impact B.3j: Traffic generated by buildout of the project would contribute more than five percent of the cumulative traffic increases at the unsignalized intersection of Embarcadero and I-880 Northbound Off-Ramp during the p.m. peak hour, as measured by the difference between existing and cumulative (with project) conditions.
- Impact B.3k: Traffic generated by buildout of the project would contribute more than five percent of the cumulative traffic increases at the unsignalized intersection of Embarcadero and I-880 Southbound On-Ramp during the p.m. peak hour, as measured by the difference between existing and cumulative (with project) conditions.
- Impact B.3l: Traffic generated by buildout of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of 5th Avenue and 7th/8th Streets during the p.m. peak hour, as measured by the difference between existing and cumulative (with project) conditions.
- Impact B.3m: Traffic generated by buildout of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of 14th Avenue and 7th/East 12th Streets (Southbound) during the p.m. peak hour, as measured by the difference between existing and cumulative (with project) conditions.
- Impact B.3n: Traffic generated by buildout of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of Foothill Boulevard and 14th Avenue (Westbound) during the p.m. peak hour, as measured by the difference between existing and cumulative (with project) conditions.

- Impact B.3o: Traffic generated by buildout of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of 16th Street and 23rd Avenue during the p.m. peak hour, as measured by the difference between existing and cumulative (with project) conditions.

Impacts on regional and local roadways are no longer a CEQA significance criteria, however, analysis of impacts on regional and local roadways is still required as part of project approval based on non-CEQA land use planning considerations. Analysis of the Project Modifications' impact on regional and local roadways is included in Appendix C, under *Non-CEQA Transportation Impact Analysis*. Due to this, the following impacts identified in the 2009 EIR related to regional and local roadway conditions are not further analyzed in this SEIR:

- Impact B.8: The project would contribute to 2010 changes to traffic conditions on the regional and local roadways.
- Impact B.9: The project would contribute to 2025 changes to traffic conditions on the regional and local roadways.

Impacts

Conflicts with Plans, Ordinances, or Policies Relating to Safety, or Performance of the Circulation System

Impact TRANS-1: The Project Modifications would not conflict with a plan, ordinance, or policy addressing the safety or performance of the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths. (Criterion A) (*Less than Significant*)

Although the Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M and increased building mass on Phases III or IV, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would occur within the same overall building envelopes as the Approved Project. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project and this SEIR assumes that there would be no substantial increase in duration of construction-related activity with approval of the Project Modifications. The Project Modifications would result in an approximate 10 percent increase in labor force and associated worker trips to and from the site, as well as an approximately 10 percent increase in delivery trips to develop the additional 600 residential units on Phases III and IV. The marina expansion component (Phase VI) would result in additional construction-related delivery trips and extended construction timeframe due to limited in-water construction. Phase VI is anticipated to be constructed over five construction seasons (June 1 to November 30) rather than a single season, with approximately 20 construction materials delivery trips per season (or about one per week).

These increased activities on Phase III and IV would be less than what occurred during the first few years of construction when off- and on-site preparation occurred. The extended time required to construct the expanded marina would not itself cause any new significant or more severe

environmental impact related to transportation. Consequently, the construction-related traffic congestion and safety issues impacts of the Project Modifications are not reevaluated herein.

The Project Modifications do not include any changes to the Approved Project's site plan including site access intersections as well as on-site streets, sidewalks, bike facilities, intersections, and waterfront access. For this reason, as with the Approved Project, the Project Modifications would not conflict with plans, ordinances, or policies related to safety or performance of the circulation system; the City's goal for enhancing, promoting, and connecting the waterfront to the rest of the City, as stated in the LUTE and the Estuary Policy Plan; or the City's goal to encourage the use of non-automobile transportation modes as stated in the LUTE, Public Transit and Alternative Mode Policy (1998), and Complete Streets Policy (2013).

The Project Modifications would generate more than 50 peak hour trips and therefore, in accordance with the City's SCAs, a TDM plan would be required for the Project Modifications. The Brooklyn Basin TDM Plan (Nelson Nygaard, 2014) was developed for the Approved Project and is required for development in Phases I and II. This 2014 TDM would be updated to reflect recent City guidelines and best practices (SCA TRANS-3). As noted above and in the introduction to Chapter IV, the updated TDM plan would only apply to development in Phases III, IV, and VI, while the 2014 TDM Plan would apply to Phases I and II.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The 2009 EIR reviewed the Approved Project's site plan for consistency with plans, ordinances, and policies under Impacts B.4, B.5, B.6, B.7 with 2009 Mitigation Measures B.4a, B.4b, and B.7 and found the impacts to be *less than significant with mitigation*. The 2009 EIR also evaluated the construction of the Approved Project for impacts to traffic flow and circulation, parking, and pedestrian safety under Impact B.10 with 2009 Mitigation Measure B.10 and found these impacts to be *less than significant with mitigation*. The Project Modifications do not include any changes to the Approved Project's circulation elements within the site plan. The Project Modifications do not include changes to the construction-related activities that would result in new or more significant impacts relative to those identified in the 2009 EIR. Therefore, the conclusion for the Project Modifications is the same as identified in the 2009 EIR. The Project Modifications would incorporate the City's updated SCAs as described in the Regulatory Setting above. Refer to the non-CEQA discussion for the updated TDM strategies in compliance with SCA TRANS-3. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, "changed circumstances" or "new information," pursuant to CEQA Guidelines Section 15162.

Vehicle-Miles-Traveled Assessment

Impact TRANS-2: The Project Modifications would not cause substantial additional per capita vehicle miles traveled (VMT). (Criterion B) (*Less than Significant*)

Many factors affect travel behavior, including density of development, diversity of land uses, design of the transportation network, access to regional destinations, distance to high-quality transit, development scale, demographics, and transportation demand management. Typically, low-density development that is located at a great distance from other land uses, in areas with poor access to non-single occupancy vehicle travel modes, generate more vehicle travel compared to development located in urban areas, where a higher density of development, a mix of land uses, and non-single occupancy vehicle travel options are available.

Given these travel behavior factors, most of Oakland has lower VMT per capita and VMT per worker ratios than the nine-county San Francisco Bay Area region. Further, within the City of Oakland, some neighborhoods may have lower VMT ratios than others.

VMT Assessment Estimate Approach

To analyze the impacts of the Project Modifications on VMT, this analysis uses the following approaches to evaluate each of the variety of land uses for the Project Modifications:

- For residential uses, a screening analysis based on the MTC Travel Model is used to determine the impact of these project components on VMT. The City of Oakland's TIRG VMT thresholds are applied for the residential uses.
- Due to the marina expansion's unique use, the TIRG screening criteria or travel demand models cannot be used to assess its impact on VMT. A qualitative assessment is used to understand potential impacts on VMT. This method is supported by the Governor's OPR.

MTC Travel Model

Neighborhoods within Oakland are expressed geographically in transportation analysis zones, or TAZs, which are used in transportation planning models for transportation analysis and other planning purposes. The MTC Travel Model includes 116 TAZs within Oakland that vary in size from a few city blocks in the downtown core, to multiple blocks in outer neighborhoods, to even larger geographic areas in lower-density neighborhoods.

The MTC Travel Model assigns all predicted trips within, across, or to/from the nine-county San Francisco Bay Area region onto the roadway network and the transit system by mode (single-driver and carpool vehicle, biking, walking, or transit) and transit carrier (bus, rail) for a scenario.

The travel behavior from the MTC Travel Model is modeled based on the following inputs:

- Socioeconomic data developed by ABAG
- Population data created using the 2000 US Census and modified using the open source PopSyn software
- Zonal accessibility measurements for destinations of interest

- Travel characteristics and vehicle ownership rates derived from the 2000 Bay Area Travel Survey
- Observed vehicle counts and transit boardings

The daily VMT output from the MTC Travel Model for residential and office uses comes from a tour-based analysis. The tour-based analysis examines the entire chain of trips over the course of a day, not just trips to and from a Project site. In this way, all of the VMT for an individual resident or employee is included; not just trips into and out of the person’s home or workplace. For example, a resident leaves her apartment in the morning, stops for coffee, and then goes to the office. In the afternoon she heads out to lunch, and then returns to the office, with a stop at the dry cleaners on the way. After work, she goes to the gym to work out, and then joins some friends at a restaurant for dinner before returning home. All the stops and trips within her day form her “tour.” The tour-based approach would add up the total number of miles driven over the course of her tour and assign it as her daily VMT.

Based on the MTC Travel Model, the regional average daily VMT per capita is 15.0 under 2020 conditions and 13.8 under 2040 conditions, and the regional average daily VMT per worker is 21.8 under 2020 conditions and 20.3 under 2040 conditions.

Thresholds of Significance for VMT

According to the City of Oakland TIRG, the VMT threshold of significance for residential use is the existing regional household VMT per capita minus 15-percent. As such, a residential project would be considered to result in a significant impact on VMT if it were to exceed existing regional household VMT per capita minus 15-percent.

Screening Criteria

VMT impacts would be less than significant for a project if any of the identified screening criteria outlined below are met:

1. Small Projects: The project generates fewer than 100 vehicle trips per day
2. Low-VMT Areas: The project meets map-based screening criteria by being in an area that exhibits below-threshold VMT, or 15-percent or more below the regional average
3. Near Transit Stations: The project is in a Transit Priority Area or within a one-half mile of a Major Transit Corridor or Stop and satisfies the following:⁷
 - has a Floor Area Ratio of more than 0.75;
 - includes less parking for use by residents, customers, or employees of the project than other typical nearby uses, or less than the minimum required by the City, or less than the minimum or maximum allowed without a conditional use permit; and
 - is consistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the MTC).

⁷ A “major transit stop” is defined in CEQA Section 21064.3 as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

The VMT screening for the Project Modifications is described below.

Residential VMT Impact Screening

The Project Modifications satisfy the Low-VMT Area (#2) criterion but do not meet the Small Projects (#1) or Near Transit Stations (#3) criteria, as described below.

Criterion #1: Small Projects

The Project Modifications would generate more than 100 vehicle trips per day and therefore does not meet criterion #1.

Criterion #2: Low-VMT Area

Table IV.B-3 shows the estimated 2020 and 2040 VMT per capita for TAZ 947, the TAZ in which the Project site is located, as well as the applicable VMT thresholds of 15-percent below the regional average. As shown in Table IV.B-3, the 2020 and 2040 estimated average daily VMT per capita in the Project site TAZ is less than the regional averages minus 15-percent. Therefore, the Project Modifications meets criterion #2.

**TABLE IV.B-3
 DAILY VEHICLE MILES TRAVELED SUMMARY**

Land Use	Bay Area				TAZ 947	
	2020		2040		2020	2040
	Regional Average	Regional Average minus 15%	Regional Average	Regional Average minus 15%		
Residential (VMT per Capita) ^a	15.0	12.8	13.8	11.7	9.2	8.3

NOTES:

^a MTC Model results at analytics.mtc.ca.gov/foswiki/Main/PlanBayAreaVmtPerCapita and accessed in April 2020.

SOURCE: Fehr & Peers, 2020

Criterion #3: Near Transit Stations

While the Project site is between one-half and one mile from the Lake Merritt BART station and Jack London Square, there are no major transit stations within a half mile of the Project site. Therefore, the Project Modifications would not satisfy criterion #3.

Residential VMT Screening Conclusion

The Project Modifications residential use would satisfy the Low-VMT Area (#2) criterion and is therefore presumed to have a less-than-significant impact on VMT.

Marina Expansion VMT Impact Screening

The proposed marina expansion includes the addition of 158 recreational marina slips for a total of 218 slips at the expanded Clinton Basin Marina (marina).⁸ The marina and Project site are in an urban, low VMT-generating area between two major transit centers, Jack London Square and the Lake Merritt BART station, where regional, high-frequency transit is provided during the weekdays and weekends. Further, while on-street metered parking and some off-street public parking is provided within the Project site, no dedicated parking is provided for the marina. In these ways, the proposed marina would differ from most other marinas in the region. For these reasons, the marina expansion component of the Project Modifications is expected to generate a less-than-significant impact on VMT compared to other marinas in the region.

Water Taxi and Landing Dock VMT Impact Screening

As part of the landing dock infrastructure the proposed water taxi service would provide on-demand water taxi service between major destinations in the San Francisco Bay. Water taxi service is expected to be provided three times during both the AM and PM commute periods. Due to the limited expected service, the proximity to the Jack London Square Ferry Terminal, and no dedicated parking for water taxi riders, it is assumed the water taxi would be used by project residents only and therefore generate no auto trips. Non-project residents are expected to use the Jack London Square Ferry Terminal that has frequent, scheduled service, public parking, and is located just a mile west of the Project site. Nonetheless, for the purposes of a conservative analysis, trip generation estimates in this analysis treats the landing dock infrastructure as the physical equivalent of two marina berths (see Table IV.B-1 above).

For project residents, water taxi trips are expected to replace commute-period auto trips, reducing the overall VMT for the Project Modifications. For these reasons, the landing dock infrastructure and the proposed water taxi service is expected to generate a less-than-significant impact on VMT. If water taxi service expands and scheduled ferry service is provided, additional analysis to determine the impact on VMT would only be needed if automobile parking were provided to support the scheduled ferry service.

VMT Screening Conclusion

The residential components of the Project Modifications would satisfy the Low-VMT Area (#2) and the marina expansion component of the Project Modifications is expected to generate a less-than-significant impact on VMT compared to similar land uses in the region. Therefore, it is presumed that the Project Modifications would have a less-than-significant impact on VMT. Accordingly, the Project Modifications would not result in new or more severe impacts than those identified in the 2009 EIR.

Mitigation: None Required.

⁸ The 2009 EIR analyzed 170 slips on the Project site, which included 35 existing and 17 proposed new slips for a total of 52 slips in Clinton Basin Marina and 60 existing and 58 proposed new slips for a total of 118 slips in the Fifth Avenue Marina. However, the Preliminary Development Plan and Development Agreement include 60 slips in the Clinton Basin Marina. Therefore, the Project Modifications add 158 new slips for a total of 218 slips in the Clinton Basin Marina.

No New Significant Environmental Impacts in comparison to the 2009 EIR: During the time of the 2009 EIR, VMT was not a CEQA significance criteria and a VMT assessment for the Approved Project was not completed. Therefore, the Project Modifications would result in a new, less-than-significant impact not identified for the Approved Project in the 2009 EIR. No mitigation measure is required. The introduction of VMT as a CEQA significance criteria is discussed in detail in the *Regulatory Setting* section above. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Induced Automobile Travel

Impact TRANS-3: The Project Modifications would not substantially induce additional automobile travel by increasing physical roadway capacity in congested areas or by adding new roadways to the network. (Criterion C) (*Less than Significant*)

The Project Modifications would not modify the roadway network capacity surrounding the Project site, the site access, or the on-site transportation circulation. Therefore, it would not increase the physical roadway capacity and would not add new roadways to the network and would not induce additional automobile traffic. This is a less-than-significant impact; no mitigation measures are required.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: At the time the 2009 EIR was prepared, induced automobile travel was not a CEQA significance criterion and the 2009 EIR did not include an assessment of induced automobile travel due to the Approved Project. Therefore, the Project Modifications would result in a new, less-than-significant impact not identified for the Approved Project in the 2009 EIR. No mitigation measure is required. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Cumulative Impacts

Cumulative Context

This section measures the Project Modifications against the significance criteria under cumulative conditions in 2040 and establishes whether the Project Modifications would result in any cumulative traffic or transportation impacts. This SEIR assumes that the Approved Project is completed under cumulative conditions in 2040, as well as planned and funded transit, bicycle and pedestrian, and intersection projects outlined in the Environmental Setting above.

Impact TRANS-4: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project site, would not result in a significant adverse cumulative transportation and circulation impact. (*Less than Significant*)

As analyzed throughout the sections above, the Project Modifications would not result in a significant transportation impact by conflicting with a plan, ordinance, or policy addressing the safety or performance of the circulation system, causing substantial additional VMT, or substantially inducing additional automobile travel by increasing capacity. Thus, the Project Modifications would not cause a cumulative impact.

In addition, past projects have been, and present and reasonably foreseeable future projects would be, subject to environmental review to identify potential cumulative impacts. Based on the information in this transportation and circulation section and for the reasons summarized above, the Project Modifications would not contribute to any significant adverse cumulative transportation impacts when considered together with past, present, and reasonably foreseeable development.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: During the time of the 2009 EIR, cumulative analysis was limited to impact of the Approved Project on traffic and did not include consistency with adopted plans, ordinances, and policies, a VMT assessment, or assessment on induced automobile travel. Therefore, the Project Modifications would result in a new, less-than-significant impact not identified for the Approved Project in the 2009 EIR. No mitigation measure is required. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

IV.B.4 References

Bay Area Rapid Transit (BART), 2018. *Monthly Ridership Reports*. Available: <https://www.bart.gov/about/reports/ridership>. Accessed October 4, 2019.

City of Oakland, 2016. *City Of Oakland CEQA Thresholds of Significance Guidelines*. October 17, 2016.

Nelson Nygaard, 2014. *Brooklyn Basin Transportation Demand Management Plan*. Available: <http://www2.oaklandnet.com/oakca1/groups/ceda/documents/agenda/oak050006.pdf>. Accessed October 14, 2019.

IV.C Air Quality

This section presents an analysis of potential impacts on air quality that would result from the Project Modifications described in Chapter III, *Project Description*. The affected environment, regulatory setting, and analysis from the 2009 EIR are relied on to the extent relevant in this Supplemental EIR (SEIR) and are discussed to the extent that they differ from those described in the 2009 EIR. This section analyzes the direct, indirect, and cumulative effects of the Project Modifications and compares them to the conclusions of the 2009 EIR; provides modifications (additions, deletions, updates, or other revisions), as needed, to the approved mitigation measures provided in the adopted Final EIR MMRP; and identifies any residual effects that may remain following the implementation of such measures.

IV.C.1 Environmental Setting

Since preparation of the 2009 EIR, there has been substantial and on-going construction of the Approved Project. However, climate and meteorological conditions such as wind speed, wind direction, and air temperature gradients that affect the accumulation or movement and dispersal of air pollutants are the same as described in the 2009 EIR. The following setting information updates the existing air quality baseline and highlights changes in the regulatory framework that have occurred since preparation of the 2009 EIR. It also provides further detail that was not presented in the 2009 EIR with respect to health impacts associated with criteria air pollutants (CAPs) and toxic air contaminants (TACs) of concern.

Existing Air Quality

The Bay Area Air Quality Management District (BAAQMD) operates a regional monitoring network that measures the ambient concentrations of the six CAPs. Existing and probable future levels of air quality in Oakland can generally be inferred from historical ambient air quality data based on measurements conducted by the BAAQMD at its nearby monitoring stations. The monitoring station closest to the Project site is the Oakland West station approximately 1.8 miles from the Project site. The Oakland West station monitors ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and particulate matter (PM) with a diameter of less than 2.5 micrometers (PM_{2.5}). Carbon monoxide (CO) and particulate matter with a diameter of less than 10 micrometers (PM₁₀) concentrations are not available for any of the monitoring stations in Oakland.

Pollutants of concern in the San Francisco Bay Area Air Basin include ozone and PM.

Table IV.C-1 shows a five-year summary of monitoring data (2014 through 2018) for these pollutants from the Oakland West station, as well as NO₂, an ozone precursor, and CO, for which the Bay Area is in attainment/maintenance status. Due to the Project site location upwind (in terms of the predominant wind direction) of the Port of Oakland and Interstate 880, air quality measurements collected at this station located downwind from these sources are likely higher than what would be expected within the vicinity of the Project site. Table IV.C-1 also compares measured pollutant concentrations with state and national ambient air quality standards (see *Regulatory Setting* below).

**TABLE IV.C-1
 AIR QUALITY DATA SUMMARY (2014–2018) FOR OAKLAND WEST MONITORING STATION**

Pollutant	Standard	Monitoring Data by Year				
		2014	2015	2016	2017	2018
Ozone						
Highest 1-Hour Average (ppm) Highest 1-hour average, ppm	0.090 ppm	0.072	0.091	0.065	0.087	0.063
State Standards Exceedance Days		0	0	0	0	0
Highest 8-Hour Average (ppm) Highest 8-hour average, ppm	0.070 ppm	0.059	0.064	0.052	0.068	0.050
State Standard Exceedance Days		0	0	0	0	0
National Standard Exceedance Days	0.070 ppm	0	0	0	0	0
Fine Particulate Matter (PM_{2.5})						
Highest 24-Hour Average (µg/m ³) Highest 24-hour average, µg/m ³	35 µg/m ³	38.9	38.8	23.9	56.1 ^f	169.3 ^f
Measured Days over National Standard Exceedances/Samples		1	3	0	7	13
State Annual Average (µg/m ³) Annual average, µg/m ³	12 µg/m ³	10.1	9.4	10.3	8.5	--
National Annual Average (µg/m ³) Annual average, µg/m ³	12.0 µg/m ³	10.1	9.5	10.4	8.6	8.4
Nitrogen Dioxide (NO₂)						
Highest Hourly Average (ppm) Highest 24-hour average, µg/m ³	0.18 ppm	0.056	0.057	0.049	0.052	0.076
Measured Days over State Standard Exceedances/Samples		0	0	0	0	0
Carbon Monoxide (CO)						
Highest 8-Hour Average (ppm)	9.0 ppm	2.6	2.6	2.2	2.1	3.1
Measured Days over State Standard		0	0	0	0	0

NOTES:

- a “—” indicates that data are not available. Measurements are from the Oakland West Monitoring Station in Oakland.
- b Generally, state standards and national standards are not to be exceeded more than once per year.
- c A violation occurs only if the standard is exceeded. Because 0.091 rounds to 0.09, it is not considered a violation. A recorded concentration of 0.095 or greater would constitute a violation of the state standard.
- d According to the California Air Resources Board (CARB), data after 2017 may be preliminary.
- e ppm = Parts per million; µg/m³ = Micrograms per cubic meter
- f Many of these exceedances of the 24-hour PM_{2.5} standard can be attributed to the October 2017 and November and December 2018 fires in Northern California. The state annual average standard for PM₁₀ was exceeded in 2017 while the federal and state annual average standard for PM_{2.5} was not exceeded from 2014 through 2018

SOURCE: CARB, 2019a; BAAQMD, 2015; BAAQMD, 2017a; BAAQMD, 2017b; BAAQMD, 2018; BAAQMD, 2019.

Criteria Air Pollutants (CAPs)

The following text embellishes the discussion of CAPs in the setting section of the 2009 EIR in response to the California Supreme Court decision in *Sierra Club v. County of Fresno (Friant Ranch, L.P.)* (2018) 6 Cal.5th 502, Case No. S219783, also known as the “Friant Ranch” decision. In its decision the Supreme Court concluded as to the air quality issues that an EIR’s discussion must: (1) “include sufficient detail to enable those who did not participate in its preparation to understand and to consider meaningfully the issues the proposed project raises”; and (2) “make a reasonable effort to substantively connect a project’s air quality impacts to likely health consequences. As a result of this decision, more detail is provided below on the health consequences of exposure to criteria pollutants.

Ozone (O₃)

Short-term exposure to elevated concentrations of ground-level ozone can lead to a number of negative health effects. Ozone irritates the eyes and causes constriction of the airways. Besides causing shortness of breath, ozone can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema. Ozone is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving ultraviolet radiation and the reactive organic gases (ROG) and nitrogen oxides (NO_x). ROG and NO_x are known as precursor compounds for ozone. Significant ozone creation generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately three hours. Ozone is a regional air pollutant because it is formed downwind of sources of ROG and NO_x under the influence of wind and sunlight. Concentrations of the pollutant tend to be higher in the late spring, summer, and fall, when the long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds.

According to the United States Environmental Protection Agency (U.S. EPA), ozone can cause the muscles in the human airways to constrict potentially leading to wheezing and shortness of breath. Exposure to ozone can make it more difficult to breathe deeply and vigorously; cause shortness of breath and pain when taking a deep breath; cause coughing and sore or scratchy throat; inflame and damage the airways; aggravate lung diseases such as asthma, emphysema and chronic bronchitis; increase the frequency of asthma attacks; make the lungs more susceptible to infection; continue to damage the lungs even when the symptoms have disappeared; and cause chronic obstructive pulmonary disease. Long-term exposure is linked to aggravation of asthma, and is likely to be one of many causes of asthma development. Exposure to higher concentrations of ozone may also be linked to permanent lung damage, such as abnormal lung development in children (U.S. EPA, 2018a). According to the California Air Resources Board (CARB), inhalation of ozone causes inflammation and irritation of the tissues lining human airways, causing and worsening a variety of symptoms and exposure to ozone can reduce the volume of air that the lungs breathe in and cause shortness of breath (CARB, 2019b). The U.S. EPA states that people most at risk from breathing air containing ozone include those with asthma, children, older adults, and people who are active outdoors, especially outdoor workers (U.S. EPA, 2018a). Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure (U.S.

EPA, 2018a). According to CARB, studies show that children are no more or less likely to suffer harmful effects than adults; however, children and teens may be more susceptible to ozone and other pollutants because they spend nearly twice as much time outdoors and engage in vigorous activities compared to adults. Children breathe more rapidly than adults, inhale more pollution per pound of their body weight than adults, and are less likely than adults to notice their own symptoms and avoid harmful exposures. Further research may be able to better distinguish between health effects in children and adults (CARB, 2019b).

Carbon Monoxide (CO)

Ambient CO concentrations normally are considered a local effect and typically correspond closely to the spatial and temporal distributions of vehicular traffic. Wind speed and atmospheric mixing also influence CO concentrations. Under inversion conditions, CO concentrations may be distributed more uniformly over an area that may extend some distance from vehicular sources. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially dangerous for people with cardiovascular diseases, chronic lung disease, or anemia, as well as for fetuses.

At very high concentrations, which are possible indoors or in other enclosed environments, CO can cause dizziness, confusion, unconsciousness and death. Very high levels of CO are not likely to occur outdoors; however, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease since these people already have a reduced ability for getting oxygenated blood to their hearts and are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina (U.S. EPA, 2016a). The most common effects of CO exposure are fatigue, headaches, confusion, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO (CARB, 2019c).

CO concentrations have declined dramatically in California due to existing emissions controls and programs and most areas of the state, including the Project vicinity, meet the CO state and federal standards. CO monitoring and emissions modeling were vital in the early 1980s when CO levels were regularly exceeded throughout California. In more recent years, CO measurements and modeling have not been a priority in most California air districts due to the retirement of older polluting vehicles, fewer emissions from new vehicles, and improvements in fuels. The clear success in reducing CO levels is evident in the first paragraph of the executive summary of *CARB 2004 Revision to the California State Implementation Plan for Carbon Monoxide Updated Maintenance Plan for Ten Federal Planning Areas* (CARB, 2004):

“The dramatic reduction in carbon monoxide (CO) levels across California is one of the biggest success stories in air pollution control. Air Resources Board (ARB or Board) requirements for cleaner vehicles, equipment and fuels have cut peak CO levels in half since 1980, despite growth. All areas of the state designated as non-attainment for the federal 8-hour CO standard in 1991 now attain the standard, including the Los Angeles urbanized area. Even the Calexico area of Imperial County on the congested Mexican border had no violations of the federal CO standard in 2003. Only the South Coast and Calexico continue to violate the more protective state 8-hour CO standard, with declining levels beginning to approach that standard.”

Nitrogen Dioxide (NO₂) and Nitrogen Oxides (NO_x)

NO₂ is a reddish brown gas that is a by-product of fossil fuel combustion. Ambient air quality standards have been promulgated for NO₂ (CARB, 2019d). Mobile sources and industrial operations are major sources of NO₂. NO₂ may be visible as a coloring component of a brown-hued cloud on high pollution days, especially in conjunction with high ozone levels.

The terms NO_x and NO₂ are sometimes used interchangeably. However, the term NO_x is typically used when discussing emissions, usually from combustion-related activities, and the term NO₂ is typically used when discussing ambient air quality standards. Where NO_x emissions are discussed in the context of the thresholds of significance or impact analyses, the discussions are based on the conservative assumption that all NO_x emissions would oxidize in the atmosphere to form NO₂.

NO₂ is an air quality concern because it acts as a respiratory irritant and is a precursor of ozone. NO₂ is a major component of the group of gaseous nitrogen compounds commonly referred to as NO_x. Specifically, NO_x is produced by fuel combustion in motor vehicles, industrial stationary sources (such as industrial activities), ships, aircraft, and rail transit. Typically, NO_x emitted from fuel combustion are in the form of nitric oxide (NO) and NO₂. NO is often converted to NO₂ when it reacts with ozone or undergoes photochemical reactions in the atmosphere. Therefore, emissions of NO₂ from combustion sources are typically evaluated based on the volume of NO_x emitted from the source.

NO₂ can potentially irritate airways in the human respiratory system (U.S. EPA, 2016b). Short-term exposures can aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms such as coughing, wheezing or difficulty breathing. Longer exposures to elevated concentrations of NO₂ may contribute to the development of asthma and potentially increase susceptibility to respiratory infections requiring hospital admissions and visits to emergency rooms. Controlled human exposure studies show that NO₂ exposure can intensify responses to allergens in allergic asthmatics. In addition, a number of epidemiological studies have demonstrated associations between NO₂ exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses. Infants and children are particularly at risk from exposure to NO₂ due to their more rapid breathing rate for their body weight and their typically greater outdoor exposure duration while in adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease. Much of the information on distribution in air, human exposure and dose, and health effects is specifically for

NO₂. There is only limited information for NO and NO_x, and significant uncertainty in relating health effects to NO or NO_x exposure (CARB, 2019d).

Sulfur Dioxide (SO₂)

SO₂ is a combustion product of sulfur or sulfur-containing fuels such as coal and diesel and is also a precursor to the formation of atmospheric sulfate, PM, and contributes to potential atmospheric sulfuric acid formation that could precipitate downwind as acid rain. In the Bay Area, high concentrations of SO₂ are only a concern in areas close to refinery operations. According to the U.S. EPA, short-term exposures to SO₂ can harm the human respiratory system and make breathing difficult (U.S. EPA, 2018b). According to CARB, health effects at levels near the state one-hour standard are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath and chest tightness, especially during exercise or physical activity. Exposure at elevated levels of SO₂ (above 1 part per million or ppm) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality (CARB, 2019e). Children, the elderly, and those with asthma, cardiovascular disease, or chronic lung disease (such as bronchitis or emphysema) are most likely to experience the adverse effects of SO₂ (CARB, 2019e; U.S. EPA, 2018b).

Particulate Matter (PM)

PM₁₀ and PM_{2.5} consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively (a micron is one-millionth of a meter). PM₁₀ and PM_{2.5} represent fractions of particulate matter that can be inhaled into the air passages and the lungs and can cause adverse health effects. Some sources of particulate matter, such as wood burning in fireplaces, demolition, and construction activities generating dust, are more local in nature, while others, such as vehicular traffic, have a more regional effect. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health. Particulates also can damage materials and reduce visibility. Large dust particles (diameter greater than 10 microns) settle out rapidly and are easily filtered by human breathing passages. This large dust is of more concern as a soiling nuisance rather than a health hazard. The remaining fraction, PM₁₀ and PM_{2.5}, are a health concern particularly at levels above the federal and state ambient air quality standards.

As long ago as 1999, the BAAQMD CEQA Guidelines reported that studies showed that elevated particulate levels contribute to the death of approximately 200 to 500 people per year in the Bay Area. Compelling evidence suggests that PM_{2.5} is the most harmful air pollutant in the Bay Area air in terms of the associated impact on public health. A large body of scientific evidence indicates that both long-term and short-term exposure to PM_{2.5} can cause a wide range of health effects (e.g., aggravating asthma and bronchitis), causing visits to the hospital for respiratory and cardiovascular symptoms, and contributing to heart attacks and deaths (BAAQMD, 2017b; CARB, 2017). PM_{2.5} (including diesel exhaust particles) is thought to have greater effects on health because these particles are very small and therefore can penetrate to the deepest parts of the lungs.

According to CARB, both PM₁₀ and PM_{2.5} can be inhaled, with some depositing throughout the airways. PM₁₀ is more likely to deposit on the surfaces of the larger airways of the upper region of the lung while PM_{2.5} is more likely to travel into and deposit on the surface of the deeper parts of the lung, which can induce tissue damage, and lung inflammation. Short-term (up to 24 hours duration) exposure to PM₁₀ has been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits. The effects of long-term (months or years) exposure to PM₁₀ are less clear, although studies suggest a link between long-term PM₁₀ exposure and respiratory mortality and the International Agency for Research on Cancer published a review in 2015 that concluded that particulate matter in outdoor air pollution causes lung cancer.

Short-term exposure to PM_{2.5} has been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. Long-term exposure to PM_{2.5} has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children. According to CARB, populations most likely to experience adverse health effects with exposure to PM₁₀ and PM_{2.5} include older adults with chronic heart or lung disease, children, and asthmatics. Children and infants are susceptible to harm from inhaling pollutants such as PM₁₀ and PM_{2.5} as compared to healthy adults because they inhale more air per pound of body weight than do adults, spend more time outdoors, and have developing immune systems that are more susceptible to external toxins (CARB, 2017).

Mortality studies since the 1990s have shown a statistically significant direct association between mortality (premature deaths) and daily concentrations of particulate matter in the air. Despite important gaps in scientific knowledge and continued reasons for some skepticism, a comprehensive evaluation of the research findings provides persuasive evidence that exposure to fine particulate air pollution has adverse effects on cardiopulmonary health and can lead to premature death (Dockery and Pope, 2006).

Lead

Ambient lead concentrations currently meet both the federal and state standards in the Plan Area. Lead has a range of adverse neurotoxin health effects, and was formerly released into the atmosphere primarily via leaded gasoline products. The phase-out of leaded gasoline in California resulted in decreasing levels of atmospheric lead.

In the Bay Area, high concentrations of lead are only a concern in areas close to general aviation airports. Lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system, and affects the oxygen carrying capacity of blood (U.S. EPA, 2017). The lead effects most commonly encountered in current populations are neurological effects in children, such as behavioral problems and reduced intelligence, anemia, and liver or kidney damage. Excessive lead exposure in adults can cause reproductive problems in men and women, high blood pressure, kidney disease, digestive problems, nerve disorders, memory and concentration problems, and muscle and joint pain (CARB, 2019f).

While Project Modifications would result in localized and regional increases in ozone precursors and particulate matter discussed above, development of the Project Modifications would not introduce any new sources of lead emissions; consequently, lead emissions are not required to be quantified and are not further evaluated in this analysis.

Toxic Air Contaminants (TACs)

TACs are air pollutants that may lead to serious illness or increased mortality, even when present in relatively low concentrations. Potential human health effects of TACs include birth defects, neurological damage, cancer, and death. There are over 200 TACs with varying degrees of toxicity identified by state of California (CARB, 2011). Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another. In 1998, CARB classified diesel particulate matter (DPM) as a TAC, citing its potential to cause cancer and other health problems (CARB, 1998). The U.S. EPA concluded that long-term exposure to diesel engine exhaust is likely to pose a lung cancer risk to humans and can also contribute to other acute and chronic health effects (U.S. EPA, 2002).

The BAAQMD regulates TACs by using a risk-based approach as opposed to establishing an ambient concentrations standard. This risk-based approach utilizes a health risk assessment to determine the specific sources and TACs to control as well as the level of control necessary to reduce risk to acceptable levels. A health risk assessment analyzes exposure to, and human health risks from, toxic substances based on the dose and potency of the toxic substances.¹

The BAAQMD provides a publicly available inventory of TAC-related health risks for permitted stationary sources throughout the air basin as well as for freeways, which was first made available in 2012. The inventory presents community risk and hazards from screening tools and tables that are intentionally conservative. The screening-level risk factors derived from the BAAQMD's tool are intended to indicate whether additional review related to the impact is necessary and are not intended to be used to assess actual risk for all projects. The BAAQMD's Google Earth-based inventory of stationary source risks and hazards, most recently updated in 2014, indicates that there are approximately 11 permitted TAC sources within a radius of 1,000 feet of the Project site. These include Central Concrete Supply, East Bay Municipal Utility District, and back-up diesel generators operated by BART. In addition, Interstate 880 and diesel locomotive activity along the Union Pacific Railroad tracks also contribute to health risks at the Project site.

Diesel Particulate Matter (DPM)

CARB identified DPM as a TAC in 1998, primarily based on evidence demonstrating cancer effects in humans. The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Mobile sources such as trucks and buses are among the primary sources of diesel emissions, and concentrations of DPM are higher near heavily traveled highways. Health risk from ambient concentrations of DPM are much higher

¹ A health risk assessment is required for permitting approval if the BAAQMD concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggest a potential public health risk. In these instances, a health risk assessment for the source in question must be prepared. Such an assessment generally evaluates chronic, long-term effects, calculating the increased risk of cancer as a result of exposure to one or more TACs.

than the risk associated with any other TAC routinely measured in the region. The statewide risk from DPM, as determined by CARB, declined from 750 in one million in 1990 to 570 in one million in 1995; by 2012, the board estimated the average statewide cancer risk from DPM at 520 in one million (CARB, 2009; CARB, 2019g.).²

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines (CARB, 2000). Subsequent board regulations apply to new trucks and diesel fuel. With new controls and fuel requirements, 60 trucks built in 2007 would have the same particulate exhaust emissions as one truck built in 1988 (Pollution Engineering, 2009). The regulation is anticipated to result in an 80 percent decrease in statewide diesel health risk by 2020 as compared with the diesel risk in 2000 (CARB, 2005). Despite notable emission reductions, CARB recommends that proximity to sources of DPM emissions be considered in the siting of new sensitive land uses. CARB notes that these recommendations are advisory and should not be interpreted as defined “buffer zones,” and that local agencies must balance other considerations, including transportation needs, the benefits of urban infill, community economic development priorities, and other quality of life issues. With careful evaluation of exposure, health risks, and affirmative steps to reduce risk where necessary, CARB’s position is that infill development, mixed use, higher density, transit-oriented development, and other concepts that benefit regional air quality can be compatible with protecting the health of individuals at the neighborhood level (CARB, 2005).

Sensitive Receptors

Sensitive receptors in the vicinity of the Project site are generally the same as identified in the 2009 EIR, which include existing residences on 5th Street, approximately 100 feet from the Project site Parcels L and K.

IV.C.2 Regulatory Setting

Federal and State

Federal air quality regulations are largely the same as reported in the 2009 EIR. However, there have been changes to ambient air quality standards between 2010 and 2015. Specifically, in 2010 the U.S. EPA implemented a new 1-hour NO₂ standard of 100 parts per billion (ppb), and a new 1-hour SO₂ standard of 75 ppb. The previous 24-hour and annual SO₂ standards were revoked. On March 18, 2013, the U.S. EPA implemented a new annual PM_{2.5} standard of 12.0 µg/m³. Finally, in October 2015, the U.S. EPA implemented a new 8-hour ozone standard of 70 ppb.

Table IV.C-2 shows the current national and state ambient air quality standards for each pollutant as well as the attainment status of the Bay Area with respect to these standards.

² This calculated cancer risk value from ambient air exposure in California can be compared against the lifetime probability of being diagnosed with cancer in the United States, from all causes, which for men is more than 40 percent (based on a sampling of 17 regions nationwide), or greater than 400,000 in one million, according to the American Cancer Society (American Cancer Society, 2018).

**TABLE IV.C-2
 AMBIENT AIR QUALITY STANDARDS AND SAN FRANCISCO BAY AREA AIR BASIN ATTAINMENT STATUS**

Pollutant	Averaging Time	State Standard	SFBAAB Attainment Status for California Standard	Federal Primary Standard	SFBAAB Attainment Status for Federal Standard
Ozone	8 Hour	0.070 ppm	Non-Attainment	0.070 ppm	Non-Attainment
	1 Hour	0.090 ppm	Non-Attainment	---	---
Carbon Monoxide	8 Hour	9.0 ppm	Attainment	9 ppm	Attainment
	1 Hour	20 ppm	Attainment	35 ppm	Attainment
Nitrogen Dioxide	Annual Average	0.030 ppm	---	0.053 ppm	Attainment
	1 Hour	0.18 ppm	Attainment	0.100 ppm	Unclassified
Sulfur Dioxide	Annual Average	---	---	0.030 ppm	Attainment
	24 Hour	0.04 ppm	Attainment	0.14 ppm	Attainment
	1 Hour	0.25 ppm	Attainment	0.075 ppm	Attainment
Respirable Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	20 µg/m ³	Non-Attainment	---	---
	24 Hour	50 µg/m ³	Non-Attainment	150 µg/m ³	Unclassified
Fine Particulate Matter (PM _{2.5})	Annual Arithmetic Mean	12 µg/m ³	Non-Attainment	12.0 µg/m ³	Unclassified/Attainment
	24 Hour	---	---	35 µg/m ³	Non-Attainment
Sulfates	24 Hour	25 µg/m ³	Attainment	---	---
Lead	Calendar Quarter	---	---	1.5 µg/m ³	Attainment
	30-Day Average	1.5 µg/m ³	Attainment	---	---
	3-Month Rolling Average	---	---	0.15 µg/m ³	Unclassified
Hydrogen Sulfide	1 Hour	0.03 ppm	Unclassified	No Federal Standard	---
Vinyl Chloride	24 Hour	0.010 ppm	No information available	---	---
Visibility Reducing Particles	8 Hour	Extinction of 0.23/km; visibility of 10 miles or more	Unclassified	No Federal Standard	---

NOTES:

ppm = parts per million; µg/m³ = micrograms per cubic meter

SOURCE: BAAQMD, 2017b

Federal Standards for Non-Road Diesel Engines

US EPA has established a series of progressively cleaner emission standards for new non-road (off-road) diesel engines. Tier 1 standards were phased in from 1996 to 2000; Tier 2 standards were phased in from 2001 to 2006; Tier 3 standards were phased in from 2006 to 2008; and Tier 4 standards, which may require add-on emission control equipment, were phased in from 2008 to 2015. For each tier, the phase-in schedule is driven by engine size. To enable sulfur-sensitive control technologies in Tier 4 engines, USEPA mandated reductions in the sulfur content of non-road diesel fuels to 15 parts per million (ppm; also known as ultra-low-sulfur diesel), effective 2010 (DieselNet 2017).

2018 Revisions to CEQA

The changes to Appendix G of the State CEQA Guidelines effective in December 2018 were intended to reflect recent changes to the CEQA statutes and court decisions. Many of these recent changes and decisions are already reflected in the City's adopted significance thresholds, which have been used to determine the significance of potential impacts.

Diesel Fuel Regulation

The California Air Resources Board (CARB) has set sulfur limitations for diesel fuel sold in California for use in on- and off-road motor vehicles and to fulfill CARB's 2000 Diesel Risk Reduction Plan. Diesel fuel used in harbor craft was limited to 500 ppm sulfur starting January 1, 2006, and 15-ppm sulfur starting September 1, 2006. Diesel fuel used in intrastate locomotives has been limited to 15 ppm sulfur since January 1, 2007.

Board In-Use Off-Road Diesel Vehicle Rule

In July 2007, CARB adopted a rule that requires owners of off-road mobile equipment powered by diesel engines 25 horsepower or larger to meet the fleet average or best available control technology requirements for NO_x and PM emissions by March 1 of each year. The rule is structured by fleet size: large, medium, and small. Medium-sized fleets receive deferred compliance, and small fleets are exempt from NO_x requirements and receive deferred compliance.

Statewide Bus and Truck Regulation

This CARB regulation, adopted in 2008, requires the installation of PM retrofits on all heavy-duty trucks beginning in 2012 and replacement of older trucks starting in 2015. All vehicles must have 2010 model year engines or equivalent by 2023.

Executive Order N-79-20

EO N-79-20 (2020) sets the following goals (1) 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035, (2) 100 percent of medium- and heavy-duty vehicles in the State will be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks, and (3) for the State to transition to 100 percent zero-emission off-road vehicles and equipment by 2035 where feasible. The order directs CARB to promulgate appropriate regulations to achieve these goals. It also directs CARB, the Energy Commission, Public Utilities Commission and other relevant State agencies, to use their existing authorities to accelerate deployment of affordable fueling and charging options for zero-emission vehicles, in ways that serve all communities and in particular low-income and disadvantaged communities.

Emissions from Diesel Engines on Commercial Harbor Craft

In November 2007, CARB adopted a regulation to reduce DPM and NO_x emissions from new and in-use commercial harbor craft. Under CARB's definition, commercial harbor craft include tugboats, tow boats, ferries, excursion vessels, work boats, crew boats, and fishing vessels. The regulation implemented stringent emission limits on harbor craft auxiliary and propulsion

engines. In 2010, CARB amended the regulation to add specific in-use requirements for barges, dredges, and crew/supply vessels.

Regional

The regional agency responsible for developing air quality plans for the Bay Area is the BAAQMD, the agency with permit authority over stationary emission sources of air pollutants in the Bay Area and broad responsibility for air quality conditions in the region.

For state air quality planning purposes, the San Francisco Bay Area Air Basin is classified as a serious non-attainment area for the 1-hour ozone standard. The “serious” classification triggers various plan submittal requirements and transportation performance standards. One such requirement is that the BAAQMD update the Clean Air Plan every three years to reflect progress in meeting the air quality standards and to incorporate new information regarding the feasibility of control measures and new emission inventory data (Sections 40924 and 40925 of the California Health and Safety Code). The Bay Area’s record of progress in implementing previous measures must also be reviewed. The plans for the air basin are prepared with the cooperation of the Metropolitan Transportation Commission, and the Association of Bay Area Governments.

Clean Air Plan

In April 2017, the air district adopted the *2017 Clean Air Plan* whose primary goals are to protect public health and to protect the climate (BAAQMD, 2017d). The plan includes a wide range of proposed control measures to reduce combustion-related activities, decrease fossil fuel combustion, improve energy efficiency, and decrease emissions of potent greenhouse gases (GHGs). The *2017 Clean Air Plan* updates the *Bay Area 2010 Clean Air Plan* and complies with state air quality planning requirements as codified in the California Health and Safety Code (although the 2017 plan was delayed beyond the 3-year update requirement of the code). The San Francisco Bay Area’s Air Basin is designated non-attainment for both the one- and eight-hour state ozone standards. In addition, emissions of ozone precursors in the basin contribute to air quality problems in neighboring air basins. Under these circumstances, state law requires the Clean Air Plan to include all feasible measures to reduce emissions of ozone precursors and to reduce the transport of ozone precursors to neighboring air basins.

The 2017 Clean Air Plan contains 85 measures to address reduction of several pollutants: ozone precursors, particulate matter, air toxics, and GHGs. Other measures focus on a single type of pollutant, potent GHGs such as methane and black carbon that consists of harmful fine particles that affect public health. These control strategies are grouped into the following categories:

- Stationary Source Measures;
- Transportation Control Measures;
- Energy Control Measures;
- Building Control Measures;
- Agricultural Control Measures;

- Natural and Working Lands Control Measures;
- Waste Management Control Measures;
- Water Control Measures; and
- Super GHG Control Measures.

BAAQMD CEQA Guidelines and Thresholds of Significance

In December 1999, the BAAQMD adopted its *CEQA Guidelines – Assessing the Air Quality Impacts of Projects and Plans*, as a guidance document to provide lead government agencies, consultants, and project proponents with uniform procedures for assessing air quality impacts and preparing the air quality sections of environmental documents for projects subject to CEQA. The *BAAQMD CEQA Guidelines* is an advisory document and local jurisdictions are not required to utilize the methodology outlined therein. The document describes the criteria that the BAAQMD uses when reviewing and commenting on the adequacy of environmental documents. It recommends thresholds for use in determining whether projects would have significant adverse environmental impacts, identifies methodologies for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts. The 1999 *BAAQMD CEQA Guidelines* were the guidelines in effect at the time the 2009 EIR was prepared.

The BAAQMD updated the 1999 CEQA Air Quality Guidelines in 2010. In May of 2011, the BAAQMD adopted an updated version of its Thresholds of Significance for use in determining the significance of projects' environmental effects under CEQA (Thresholds), and published their CEQA Guidelines for consideration by lead agencies. The Thresholds lowered the previous (1999) thresholds of significance for annual emissions of ROG, NO_x, and PM₁₀, and set a standard for PM_{2.5} and fugitive dust. The 2011 CEQA Guidelines also include methodologies for evaluating risks and hazards for the siting of stationary sources and of sensitive receptors. The BAAQMD resolution adopting the significance thresholds in 2010 and 2011 was set aside by the Alameda County Superior Court on March 5, 2012. On August 13, 2013, the California Court of Appeals issued a full reversal of the Superior Court's judgment, and on December 17, 2015, the California Supreme Court reversed in part the appellate court's judgment and remanded the case for further consideration consistent with the Supreme Court opinion. The California Supreme Court ruled unanimously that CEQA review is focused on a project's impact on the environment "and not the environment's impact on the project." (*California Building Industry Association v. Bay Area Air Quality Management District* (December 17, 2015, Case No. S213478)). The Supreme Court confirmed that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future residents or users." The Court also held that when a project has "potentially significant exacerbating effects on existing environmental hazards" those impacts are properly within the scope of CEQA because they can be viewed as impacts of the project on "existing conditions" rather than impacts of the environment on the project. Based on this decision, the analyses in this SEIR of the impacts of the environment on the project are provided for informational purposes only.

The BAAQMD most recently updated its CEQA Air Quality Guidelines in May 2017, and these guidelines continue to provide direction on recommended analysis methodologies but no longer

recommend quantitative significance thresholds. In the revised Guidelines, the air district recommends that lead agencies develop their own thresholds of significance. The BAAQMD offers, as possibilities, its previous 1999 Guidelines thresholds and also presents a table of thresholds promulgated by other California air districts, as well as a reference to California Air Pollution Control Officers Association and State Air Resources Board guidance. Lead agencies may also reference the BAAQMD CEQA Thresholds Options and Justification Report developed by district staff in 2009. This latter option provides lead agencies with a justification for continuing to rely on the BAAQMD 2011 thresholds. As such, City Thresholds for air quality are generally based upon the BAAQMD 2011 CEQA Guidelines and Thresholds, but also account for the BAAQMD's 2017 guidance. Accordingly, this SEIR references both the 2011 and 2017 BAAQMD CEQA Air Quality Guidelines.

Local Plans, Ordinances and Policies

Since preparation of the 2009 EIR, there has been no change in the City General Plan with respect to air quality relevant to the this SEIR analysis.

City of Oakland Equitable Climate Action Plan

In July 2020, via Resolution 88267, Oakland City Council adopted the 2030 Equitable Climate Action Plan (ECAP), a comprehensive plan to achieve the 2030 GHG reduction target and increase Oakland's resilience to the impacts of the climate crisis, both through a deep equity lens (City of Oakland, 2020b). Alongside the 2030 ECAP, Council also adopted a goal to achieve community-wide carbon neutrality no later than 2045 (City of Oakland, 2020c.). Achieving carbon neutrality will require complete decarbonization (ensuring that all mechanical systems run on clean electricity) of Oakland's building sector.

The 2030 ECAP includes a set of 40 Actions projected to result in a 60 percent reduction in GHG emissions by 2030, relative to Oakland's 2005 emission levels. Among these actions are building sector actions B-1 which will eliminate natural gas in new buildings and B-2: which plans for all existing buildings to be efficient and all electric by 2040.

City of Oakland Municipal Code

On December 15, 2020, the Oakland City Council adopted an Ordinance creating Oakland Municipal Code Chapter 15.37, "All-Electric Construction In Newly Constructed Buildings." The new regulations in this ordinance require all newly constructed buildings, as defined in the Ordinance, to meet the definition of an "All-Electric Building." Compliance with the Ordinance requires new construction to be designed to use a permanent supply of electricity as the source of energy for all operational functions including space heating, water heating, cooking appliances, and clothes drying appliances, and will be prohibited from having natural gas or propane plumbing installed in the newly constructed building.

Oakland Standard Conditions of Approval (SCAs)

The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) in 2008, and they have since been amended and revised several times.³ Like other regulations, the SCAs apply to projects in the City regardless of their CEQA impacts. The SCAs are not mitigation measures and therefore are not listed as mitigation measures. If the Project Modifications are approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project Modifications. With implementation of the SCAs, some of the mitigation measures from the 2009 EIR are no longer needed, and this SEIR notes when that occurs.⁴ Below are the SCAs relevant to air quality:

- **SCA TRANS-3 (SCA 77): Transportation and Parking Demand Management** (see Section IV.B, *Transportation and Circulation*);
- **SCA TRANS-6 (SCA 80): Plug-In Electric Vehicle (PEV) Charging Infrastructure** (see Section IV.B, *Transportation and Circulation*).

IV.C.3 Impacts and Mitigation Measures

Significance Criteria

The City of Oakland has established thresholds of significance for CEQA impacts which incorporate those in Appendix G of the CEQA Guidelines (City of Oakland, 2016). Based on these thresholds, the Project Modifications would have a significant adverse impact related to Air Quality if they would:

- A. During project construction result in average daily emissions of 54 pounds per day of ROG, NO_x, or PM_{2.5} or 82 pounds per day of PM₁₀;
- B. During project operation result in average daily emissions of 54 pounds per day of ROG, NO_x, or PM_{2.5} or 82 pounds per day of PM₁₀; or result in maximum annual emissions of 10 tons per year of ROG, NO_x, or PM_{2.5} or 15 tons per year of PM₁₀;
- C. Contribute to carbon monoxide (CO) concentrations exceeding the California Ambient Air Quality Standards (CAAQS) of nine parts per million (ppm) averaged over eight hours and 20 ppm for one hour;
- D. For new sources of Toxic Air Contaminants (TACs), during either project construction or project operation expose sensitive receptors to substantial levels of TACs resulting in (a) an increase in cancer risk level greater than 10 in one million, (b) an increase in non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average PM_{2.5} of greater than 0.3 micrograms per cubic meter; or, under cumulative conditions, resulting in (a) a cancer risk level greater than 100 in a million, (b) a non-cancer risk (chronic or acute)

³ A revised set of SCAs was recently published by the City of Oakland in December, 2020.

⁴ Where SCAs replace mitigation measures for the Project Modifications, such replacement does not indicate that the Project Modifications would have new or substantially more severe environmental impacts than the Approved Project.

hazard index greater than 10.0, or (c) annual average PM_{2.5} of greater than 0.8 micrograms per cubic meter;

- E. Expose new sensitive receptors to substantial ambient levels of Toxic Air Contaminants (TACs) resulting in (a) a cancer risk level greater than 100 in a million, (b) a non-cancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average PM_{2.5} of greater than 0.8 micrograms per cubic meter (This discussion is provided for informational purposes only pursuant to the California Supreme Court's decision in *CBIA v. BAAQMD*); or
- F. Frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people.

Methodology

Consistent with CEQA guidance, the SEIR is required to evaluate only the changes in the project, circumstances, or new information that could give rise to new significant environmental impacts or substantially more severe environmental impacts than were analyzed in the 2009 EIR. As such, in accordance with CEQA Guidelines Section 15163, this SEIR contains information necessary to disclose environmental impacts from the Project Modifications that were not analyzed in the 2009 EIR or would be substantially more severe than anticipated by the 2009 EIR. This SEIR evaluates the Project Modifications using the City's current methodology, significance criteria, and thresholds. The analysis relies on the environmental baseline, which is the physical circumstances existing at the time the NOP was published in September 2018, and also compares the Project Modification to the Approved Project to determine if the modifications create any new or substantially more severe impacts on the environment. This SEIR discusses new City requirements and analysis methods established since preparation of the 2009 EIR, such as the incorporation of the City's SCAs, which would be required conditions of approval for the Project Modifications.

Changes that have occurred to the environmental or regulatory setting since preparation of the 2009 EIR are described above. Since the preparation of the 2009 EIR, the City's CEQA Thresholds of Significance for air quality resources were updated after BAAQMD's adoption of new significance thresholds in 2010 and 2011. These revised thresholds include adoption of a quantitative thresholds for assessment of construction-related emissions (54 pounds per day for ROG, NO_x and PM_{2.5} and 82 pounds per day of PM₁₀). Operational emission thresholds were also slightly adjusted and are now the same as the construction thresholds for average daily emissions but also include maximum annual emissions (10 tons per year for ROG, NO_x and PM_{2.5} and 15 tons per year for PM₁₀). Health risk thresholds cited above were also formally adopted for CEQA purposes. Therefore, the impact discussions and analyses below focus on the activities associated with the Project Modifications and the potential for air quality impacts associated with those activities that were not previously disclosed in the 2009 EIR.

An Air Quality and Greenhouse Gas Technical Assessment was prepared for the Project Modifications and is presented in Appendix D. This assessment considered the following sources of emissions:

- Area sources including maintenance application of paint and architectural coatings, operation of landscape equipment and use of consumer products;
- Building energy for all-electric construction of the 600 new residential units⁵;
- Emissions associated with increases in vehicle miles travelled resulting from project trip generation. Vehicle trip generation used to calculate these emissions used trip generation and transit mode split data provided by the Transportation analysis (Appendix C); and
- Emissions associated with increases in use of recreational marine vessels. These estimates assumed the state-wide fleet mix for recreational vessels as inventoried by CARB.
- Emissions associated with two Tier 3 diesel-powered vessels powered water taxi vessels operating six trips per day.

The California Emission Estimator Model version 2016.3.2 (CalEEMod) was used to quantify criteria pollutant and precursor emissions of concern for which BAAQMD and the City of Oakland have established quantitative thresholds (Criterion B, above). CalEEMod utilizes widely accepted models for emission estimates combined with appropriate default data that can be used when site-specific information is not available. Such models and sources include the U.S. EPA AP-42 emission factors CARB's on-road and off-road equipment emission models such as the Emission FACtor model (EMFAC) and the Emissions Inventory Program model (OFFROAD), and studies commissioned by California agencies such as the California Energy Commission and CalRecycle.

Emissions from the water taxi service were calculated using emission factors and methodology from CARB (CARB, 2012 in Appendix D). A trip duration of 22 minutes was assumed with a 5-minute idle at each end of a trip. As a conservative analysis, it was assumed that each vessel had at least one main engine and one auxiliary engine. The existing fleet of watercraft, which presently consists of two Tier 3 diesel-powered vessels, will be an all-electric fleet by 2025. However, emissions were conservatively calculated for the existing diesel engine fleet. Operational pollutants emissions from the Project Modifications would include area source emissions (consumer products); emissions from energy use (including natural gas combustion which, as discussed above, will not actually be a component of residential component of the Project Modifications, per Municipal Code Chapter 15.37); and operational traffic. Further detail is included in the Air Quality Technical Report prepared for the Project Applicant by Ramboll and included in Appendix D.

Potential CO impacts relative to Criterion C, above, are assessed using BAAQMD screening methodology that relies on roadway intersection volumes.

⁵ On December 15, 2020, the Oakland City Council adopted an Ordinance, adding to the Oakland Municipal Code Chapter 15.37, "All-Electric Construction In Newly Constructed Buildings." These new regulations require all projects that receive entitlements after December 15, 2020 to meet the definition of an All-Electric Building, as defined therein. As a result, the Project Modifications will be required to be designed to use a permanent supply of electricity as the source of energy for all space heating, water heating, cooking appliances, and clothes drying appliances, and will be prohibited from having natural gas or propane plumbing.

Impacts

Impact AQ-1: The Project Modifications would not result in average daily emissions of 54 pounds per day of ROG, NO_x, of PM_{2.5} or 82 pound per day of PM₁₀ during construction. (Criterion A) (*Less than Significant*)

Although the Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M and increased building mass in Phase III or IV, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would occur within the same overall building envelopes as the Approved Project. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project and this SEIR assumes that there would be no substantial increase in duration of residential construction-related activity with approval of the Project Modifications. The Project Modifications would result in an approximate 10 percent increase in labor force and associated worker trips to and from the site, as well as an approximately 10 percent increase in delivery trips to develop the additional 600 residential units on Phases III and IV. The marina expansion component (Phase VI) would result in additional construction-related delivery trips and extended construction timeframe due to the limited time in-water construction is permitted. Phase VI is anticipated to be constructed over five seasons rather than one season, with approximately 20 construction materials delivery trips per season.

Because the 2009 EIR estimated construction-related particulate emissions using Year 2010 emission factors, NO_x and particulate emissions under the Modified Project would be reduced from those estimated in the 2009 EIR as improvements to the construction fleet and trucks and worker vehicle fleets have reduced emissions resulting from implementation of CARB's 2007 In-Use Off-Road Diesel Vehicle Regulation Program that was amended in December 2011 as well as other statewide improvements.

At the time of the 2009 EIR construction emissions of criteria air pollutants were assumed, per BAAQMD Guidance, to be in part already considered in the State Implementation Plans for meeting air quality standards and were therefore not required to be quantified in a CEQA analysis. Subsequent regulations regarding on-road diesel truck retrofits with particulate matter controls, 2010 or later engine standards, and fleet average emission rate standards to increase turnover have resulted in much lower DPM and PM_{2.5} emissions as well as reductions in NO_x. The more recent emissions factors from EMFAC2017 for the existing on-road truck fleet demonstrate that PM_{2.5} emissions from heavy-duty trucks are 0.0083 grams of PM_{2.5} per mile, which is a 92 percent reduction from is what was assumed in the 2009 EIR. Consequently, while construction of the Modified Project may result in an increase in comparatively greater particulate emissions from an estimated 10 percent increase in worker and delivery trips, this marginal increase is more than compensated by improvements to the state-wide construction truck fleet and the impact of construction-related particulate emissions associated with the Modified Project would be less than those estimated for the Approved project in the 2009 EIR.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: Construction-related emissions were evaluated in the 2009 EIR under Impact C.1 with 2009 Mitigation Measures C.1a, C.1b, and C.7a through C.7k (*less than significant with mitigation*). The Project Modifications would not contribute to this impact and no new mitigation is necessary for the Project Modifications. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information,” pursuant to CEQA Guidelines Section 15162.

Impact AQ-2: The Project Modifications would not generate operational average daily emissions of more than 54 pounds per day of ROG, NO_x, or PM_{2.5} or 82 pounds per day of PM₁₀; or result in maximum annual emissions of 10 tons per year of ROG, NO_x, or PM_{2.5} or 15 tons per year of PM₁₀. (Criterion B) (*Less than Significant*)

Operation of the Project Modifications would result in an increase in CAPs and precursor emissions compared to the Approved Project, including ROG, NO_x, PM₁₀ and PM_{2.5} from a variety of emissions sources, including onsite area sources⁶ (e.g., landscape maintenance, use of consumer products such as hairsprays, deodorants, cleaning products, etc.), mobile on-road sources, increased operation of recreational vessels, and new water taxi trips. These operational emissions associated with the Project Modifications were calculated using the CalEEMod land use emissions model program.

The transportation analysis for the Project Modifications estimates that upon buildout, the Project Modifications would generate an additional 2,830 vehicle trips per day after accounting for use of alternative modes of transportation. **Table IV.C-3** summarizes daily mobile and onsite area emissions of criteria pollutants that would be generated by the Project Modifications upon full buildout. It compares these emissions with City of Oakland significance thresholds. **Table IV.C-4** summarizes the maximum annual criteria pollutants emissions upon full Modified Project buildout. While the buildout year assumed in the calculation of emissions was 2026, the project buildout year has subsequently been extended to 2038. Given that mobile emissions would be improved in the intervening years by turnover of the overall vehicle fleet, the estimates in Tables IV.C-3 and Table IV.C-4 are conservative⁷. As indicated in Tables IV.C-3 and Table IV.C-4, operational emissions of the Project Modifications would not exceed the significance thresholds for emissions of ROG, NO_x, PM₁₀ or PM_{2.5}. Therefore, the impact of the Project Modifications would be less than significant. Additionally, SCA TRANS-3 (SCA 77): Transportation and Parking Demand Management and SCA TRANS-6 (SCA 80): Plug-In Electric Vehicle (PEV) Charging Infrastructure (see Section IV.B, *Transportation and Circulation*) would be implemented by the

⁶ Consistent with the City’s building electrification ordinance, the buildings with the proposed 600 additional units would have no natural gas. Since all criteria air pollutant emissions from energy use reported by CalEEMod® are from natural gas use, such emissions are not included in this analysis.

⁷ While the transportation analysis and trip generation estimates assume 166 additional berths, the Project Modifications would include 158 new berths in addition to the Approved Project, making the emission estimates conservative. In addition, for the purposes of a conservative analysis, the landing dock infrastructure is treated as the physical equivalent of two marina berths. The combined total of 160 berths is still less than the conservative assumption of 166 berths used in this analysis.

Project Modifications and would have the potential to further reduce these less-than-significant operational emissions by reducing emissions associated with vehicle trip generation and encouraging the use of alternatively powered vehicles, respectively.

**TABLE IV.C-3
 AVERAGE DAILY OPERATIONAL EMISSIONS OF THE PROJECT MODIFICATIONS**

	Average Daily Operational Emissions (pounds/day)			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Area Sources	16	0.28	0.14	0.14
Mobile Sources	3.0	21	13	3.5
Recreational Marine Vessels	10	2.3	0.55	0.41
Water Taxi Service	1.2	17	0.82	0.82
Total Project Emissions	30	40	14	4.8
Threshold	54	54	82	54
Exceeds Threshold?	No	No	No	No

SOURCE: Ramboll, 2021; Technical Detail in Appendix D

**TABLE IV.C-4
 MAXIMUM ANNUAL OPERATIONAL EMISSIONS**

	Maximum Annual Operational Emissions (tons/year)			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Area Sources	2.9	0.05	0.03	0.03
Mobile Sources	0.55	3.8	2.3	0.64
Recreational Marine Vessels	1.9	0.42	0.10	0.075
Water Taxi Service	0.21	3.1	0.15	0.15
Total Project Emissions	5.5	7.4	2.6	0.88
Threshold	10	10	15	10
Exceeds Threshold?	No	No	No	No

SOURCE: Ramboll, 2021; Technical Detail in Appendix D

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The 2009 EIR concluded that the Approved Project’s contribution to the regional emissions would be below the significance thresholds specified by the BAAQMD for ROG, NO_x and PM₁₀ for the interim analysis year 2010 and identified the project-level impact under Impact C.2, as *less than significant*. The above assessment of emissions from the Project Modifications indicate that ROG, NO_x and PM₁₀ emissions from Project Modifications would be less than significant. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information” pursuant to CEQA Guidelines Section 15162.

Impact AQ-3: Project Modifications would not contribute to CO concentrations exceeding the CAAQS. (Criterion C) (*Less than Significant*)

Operation of the Project Modifications would result in an increase in localized CO concentrations, primarily from a mobile on-road sources. Pursuant to BAAQMD CEQA Guidelines, localized CO concentrations should be estimated for projects in which (a) project-generated traffic would conflict with an applicable congestion management program established by the county congestion management agency, or (b) project-generated traffic would increase traffic volumes at affected intersections to more than 44,000 vehicles per hour (or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited, such as tunnels, parking garages, bridge underpasses, natural or urban street canyons, and below-grade roadways). The transportation analysis conducted for the Project Modifications concluded they would not conflict with the Alameda County Congestion Management Program (see Appendix C). In Oakland, only the MacArthur Maze portion of Interstate 580 exceeds the 44,000 vehicles per hour screening criteria, which is over 1.5 miles northwest of the Project site. Further, ambient CO standards have not been exceeded in the Bay Area for over a decade, largely due to reformulated fuels in California. Therefore, the Project Modifications would not be required to estimate localized CO concentrations as they would not contribute to CO concentrations exceeding CAAQS. The impact would be less than significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impact of localized CO concentrations is the same as identified in the 2009 EIR under Impact C.3 (*less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information” pursuant to CEQA Guidelines Section 15162.

Impact AQ-4: The Project Modifications would not introduce new sources of TACs nor expose unplanned residential land uses to TACs. (Criteria D and E) (*Less than Significant*)

Although the Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would occur within the same overall building envelopes as the Approved Project. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project and this SEIR assumes that there would be no substantial increase in duration of residential construction-related activity with approval of the Project Modifications. The Project Modifications would result in an approximate 10 percent increase in labor force and associated worker trips to and from the site, as well as an approximately 10 percent increase in delivery trips to develop the additional 600 residential units in Phases III and IV. The marina expansion component (Phase VI) would result in additional construction-related delivery trips and extended construction timeframe due to limited in-water

construction. Phase VI is anticipated to be constructed over five seasons with approximately 20 construction materials delivery trips per season.

The 2009 EIR calculated particulate emissions from on-road construction trucks for the purposes of assessing construction-related air quality impacts. As stated on page IV.C-13 of the 2005 DEIR, “emissions of diesel exhaust from all off-road and on-road construction-related vehicles were determined based on emission rates and duration of use for each piece of equipment. Diesel exhaust emissions rates for all on-road diesel trucks (e.g., dump trucks) were obtained from CARB’s EMFAC2002 emissions model (CARB, 2003).” As shown in Appendix J of the 2005 DEIR, the assumed PM₁₀ emissions factor for heavy-duty trucks was 0.098 grams of PM_{2.5} per mile.

Since preparation of the 2009 EIR, CARB has further implemented its comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines.⁸ Many of the measures of the Diesel Risk Reduction Plan have been approved and adopted. These subsequent regulations regarding on-road diesel truck retrofits with particulate matter controls, 2010 or later engine standards, and fleet average emission rate standards to increase turnover have resulted in much lower DPM and PM_{2.5} emissions. Using more recent emissions factors from EMFAC2017⁹ for the existing on-road truck fleet demonstrate that PM_{2.5} emissions from heavy-duty trucks are 0.0083 grams of PM_{2.5} per mile, which is a 92 percent reduction from is what was assumed in the 2009 EIR. Consequently, while construction of the Modified Project may result in an increase in particulate emissions from an increase in worker and delivery trips, this marginal increase is more than compensated by improvements to the state-wide construction truck fleet and the impact of construction-related particulate emissions associated with the Modified Project would be less than those identified for the Approved Project in the 2009 EIR.

Similarly, the Project Modification would not introduce new standby diesel generators compared with the Approved Project or other operations that would increase TACs as compared to the Approved Project. Increased operation of recreational vessels would primarily consist of a mixture of marine-grade diesel and gasoline-powered spark-ignition engines.¹⁰ In addition, the water taxi would have a diesel engine. The additional component of diesel emissions compared to the Approved Project’s diesel emissions are relatively small and would generally be emitted out in San Francisco Bay and away from sensitive receptors.

Therefore, there would be no new or increased health risks associated with the Project Modifications. Consequently, exposure of new sensitive receptors to health risks of the Project Modifications are not reevaluated herein.

⁸ California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, 2000. Available at <https://www.arb.ca.gov/diesel/documents/rpfinal.pdf>. Accessed January 14, 2020.

⁹ The most recent U.S. EPA-approved version of the EMFAC model.

¹⁰ According to the CARB marine vessel inventory, marine vessels are 95% gasoline powered and 5% diesel powered. The air quality modeling relies on CARB’s marine vessel inventory.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential health risk impacts is the same as identified in the 2009 EIR under Impact C.5 (*less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information” pursuant to CEQA Guidelines Section 15162.

Impact AQ-5: The Project Modifications would not create or expose sensitive receptors to substantial objectionable odors. (Criterion F) (*Less than Significant*)

The Project Modifications would add additional residential units in buildings previously approved for residential use in the 2009 EIR and add additional marina slips. These expanded uses would not represent new sources of odor and there would be no new or increased odor impacts associated with the Project Modifications. Consequently, odor impacts of the Project Modifications are not reevaluated herein.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the impacts related to substantial objectionable odors is the same as identified in the 2009 EIR under Impact C.4 (*less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information” pursuant to CEQA Guidelines Section 15162.

Cumulative Impacts

Cumulative Context

The cumulative geographic context for cumulative air quality impacts is the regional San Francisco Bay Area Air Basin, which is considered a non-attainment area for both state and federal ambient air quality standards for ozone and particulate matter. Except for impacts related to TACs and odors, air quality impacts are by their nature cumulative impacts because one project by itself cannot generate air pollution that would violate regional air quality standards. Cumulative air quality impacts are evaluated based on 1) consistency of the Project Modifications with local and regional air quality plans (i.e., the City General Plan and the 2017 Clean Air Plan), and 2) a quantification of Project-related air quality impacts.

Impact AQ-6: Emissions generated by Project Modifications, combined with emissions from other past, present and reasonably foreseeable projects would not result in a cumulative air quality impact. (*Less than Significant*)

Cumulative Impact and Project Contribution

As noted earlier, the contribution of a project's individual air emissions to regional air quality impacts is, by its nature, a cumulative effect. Emissions from past, present, and reasonably foreseeable future projects in the region also have or will contribute to adverse regional air quality impacts on a cumulative basis, resulting in a potentially significant cumulative air quality impact. No single project by itself would be sufficient in size to result in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality conditions (BAAQMD, 2017c).

Emissions associated with the Project Modifications would not exceed the project-level thresholds as explained in Impact AQ-2. Therefore, the Project Modifications would not result in a cumulatively considerable contribution to significant cumulative regional air quality impacts, including toxic air contaminants, and the cumulative air quality impact would be less than cumulatively considerable.

Similarly, the Project Modifications would not add bothersome odor sources to the area and would not combine with other odor sources to create a significant cumulative impact.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The 2009 EIR found that, for the Cumulative Plus Project scenario, the Approved Project would contribute to a cumulatively *significant and unavoidable* impact on the regional PM₁₀ levels (Impact C.7; 2009 Mitigation Measures C.7a through C.7k). However, as indicated above, the Project Modifications would not contribute considerably to this significant cumulative air quality impact of the 2009 EIR. However, the SCAs identified above for the Project Modifications would apply in addition to the transportation demand management SCA identified in Section IV.B *Transportation and Circulation*.

IV.C.4 References

American Cancer Society, 2018. *Lifetime Risk of Developing or Dying From Cancer*, January 2018. Available: <https://www.cancer.org/cancer/cancer-basics/lifetime-probability-of-developing-or-dying-from-cancer.html>. Accessed May 2019.

Bay Area Air Quality Management District (BAAQMD), 2015. *Bay Area Air Pollution Summary – 2015*. Available: <http://www.baaqmd.gov/about-air-quality/air-quality-summaries>. Accessed May 2019.

———, 2017a. *Bay Area Air Pollution Summary – 2016*, May, 2017. Available: <http://www.baaqmd.gov/about-air-quality/air-quality-summaries>. Accessed May 2019.

- , 2017b. *Air Quality Standards and Attainment Status*, updated January 5, 2017 Available: <http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status>. Accessed April 2019.
- , 2017c. *California Environmental Quality Act Air Quality Guidelines*, May, 2017. Available: http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed April 2019.
- , 2017d. *Clean Air Plan, Spare the Air, Cool the Climate*. Available: http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed May 2019.
- , 2018. *Bay Area Air Pollution Summary – 2017*, April 2018. Available: <http://www.baaqmd.gov/about-air-quality/air-quality-summaries>. Accessed May 2019.
- , 2019. *Bay Area Air Pollution Summary – 2018*, May 2019. Available: <http://www.baaqmd.gov/about-air-quality/air-quality-summaries>. Accessed May 2019.
- California Air Resources Board (CARB), 1998. *Fact Sheet: The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines*, October 1998. Available: <https://www.arb.ca.gov/toxics/dieseltac/factsht1.pdf>. Accessed April 2019.
- , 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. Available: <https://www.arb.ca.gov/diesel/documents/rrpfinal.pdf>. Accessed April 2019.
- , 2004. *2004 Revision to the California State Implementation Plan for Carbon Monoxide Updated Maintenance Plan For Ten Federal Planning Areas*, July 2004. Available: https://www.arb.ca.gov/planning/sip/co/final_2004_co_plan_update.pdf. Accessed May 2019.
- , 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005. Available: <http://www.arb.ca.gov/ch/handbook.pdf>. Accessed April 2019.
- , 2009. *California Almanac of Emissions and Air Quality - 2009 Edition*, Table 5-44 and Figure 5-12. Available: <http://www.arb.ca.gov/aqd/almanac/almanac09/chap509.htm>. Accessed May 2019.
- , 2011. *Toxic Air Contaminant Identification List*, July, 2011. Available: <https://www.arb.ca.gov/toxics/id/taclist.htm>. Accessed October 22 2019.
- , 2017. *Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀)*, last reviewed August 10, 2017. Available: <https://www.arb.ca.gov/research/aaqs/common-pollutants/pm/pm.htm>. Accessed April 2019.
- , 2019a. *iADAM: Air Quality Data Statistics, Years 2014-2018*. Available: <https://www.arb.ca.gov/adam>. Accessed April 2019.
- , 2019b. *Ozone & Health, Health Effects of Ozone*. Available: <https://ww2.arb.ca.gov/resources/ozone-and-health>. Accessed April 2019.

- , 2019c. *Carbon Monoxide & Health*. Available: <https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health>. Accessed April 2019.
- , 2019d. *Nitrogen Dioxide & Health*, Available: <https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health>. Accessed April 2019.
- , 2019e. *Sulfur Dioxide & Health*, Available: <https://ww2.arb.ca.gov/resources/sulfur-dioxide-and-health>. Accessed April 2019.
- , 2019f. *Lead & Health*, Available: <https://ww2.arb.ca.gov/resources/lead-and-health>. Accessed April 2019.
- , 2019g. *Overview: Diesel Exhaust and Health*. Available: <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health>. Accessed May 2019.
- , 2020. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. Available at <https://www.arb.ca.gov/diesel/documents/rrpfinal.pdf>. Accessed January 14, 2020.
- City of Oakland, 1996. *Open Space, Conservation and Recreation (OSCAR) Element of the Oakland General Plan*. Available: www2.oaklandnet.com/government/o/PBN/OurServices/GeneralPlan/DOWD009017. Accessed April 2019.
- , 2016. *City of Oakland CEQA Thresholds of Significance Guidelines*. October 17, 2016
- Dockery D.W. & Pope C.A., III, (2006) *Health Effects of Fine Particulate Air Pollution: Lines that Connect*, June 2006, *Journal of the Air & Waste Management Association*, 56:6, 709-742, DOI: 10.1080/10473289.2006.10464485. Available: <https://www.tandfonline.com/doi/abs/10.1080/10473289.2006.10464485>. Accessed April 2019.
- United States Environmental Protection Agency (U.S. EPA), 2002. *Health Assessment Document For Diesel Engine Exhaust*, EPA/600/8-90/057F, May 2002.
- , 2016a. *Carbon Monoxide (CO) Pollution in Outdoor Air*, September 8, 2016. Available: <https://www.epa.gov/co-pollution/basic-information-about-carbon-monoxide-co-outdoor-air-pollution>. Accessed April 2019.
- , 2016b. *Nitrogen Dioxide (NO₂) Pollution*, September 8, 2016. Available: <https://www.epa.gov/no2-pollution/basic-information-about-no2>. Accessed April 2019.
- , 2017. *Lead Air Pollution*, last updated November 29, 2017. Available: <https://www.epa.gov/lead-air-pollution/basic-information-about-lead-air-pollution>. Accessed April 2019.
- , 2018a. *Health Effects of Ozone Pollution*, October 10, 2018. Available: <https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution>. Accessed April 2019.
- , 2018b. *Sulfur Dioxide (SO₂) Pollution*, June 28, 2018. Available: <https://www.epa.gov/so2-pollution/sulfur-dioxide-basics>. Accessed April 2019.

IV.D Hydrology and Water Quality

This section presents an analysis of potential impacts on hydrology and water quality that would result from the Project Modifications described in Chapter III, *Project Description*. The affected environment, regulatory setting, and analysis from the 2009 EIR are relied on to the extent relevant in this Supplemental EIR (SEIR), and are discussed to the extent that they differ from those described in the 2009 EIR. This section analyzes the direct, indirect, and cumulative effects of the Project Modifications and compares them to the conclusions of the 2009 EIR; provides modifications (additions, deletions, updates, or other revisions), as needed, to the approved mitigation measures provided in the adopted Final EIR MMRP; and identifies any residual effects that may remain following the implementation of such measures.

IV.D.1 Environmental Setting

Since preparation of the 2009 EIR, there has been no change in regional hydrology conditions or to the Oakland Estuary relevant to the SEIR analysis apart from new information related to flooding, as addressed below. Water quality, point-sources and nonpoint-sources of pollution or discharge largely remain unchanged on the Project site and area since preparation of the 2009 EIR. Similarly, there are no changes to groundwater resources relevant to the SEIR analysis.

Since certification of the 2009 EIR, there has been substantial and on-going construction of the Approved Project on Parcel B which was still under construction at the time of the Notice of Preparation (September 2018). The shoreline conditions at the Project site described in the 2009 EIR remain primarily the same, though the Ready Mix Plant facility near the Fifth Avenue Marina has been removed, as well as the concrete bulkhead that continued for a short section near the gangways to both walkways of the marina. The large concrete blocks, slabs, and other debris on the shoreline have also been removed. In addition, since the 2009 EIR, the shoreline to the west and north of the Ninth Avenue Terminal building has undergone improvements, and portions of Ninth Avenue Terminal have been demolished in accordance with 2009 Mitigation Measures. Additional site changes are described in Chapter III.

Flooding

As described below, since the preparation of the 2009 EIR, two new sources of information provide relevant environmental setting updates related to flood risk and the Project site. The first is a new Alameda County Flood Insurance Rate Map (FIRM) established by the Federal Emergency Management Agency (FEMA). The second is new statewide information regarding future elevations of ocean water level due to sea level rise and guidance on how to incorporate this information into planning.

Storm Induced Flooding

The FEMA FIRM program, which designates areas where flooding could occur during 100-year and 500-year flood events, did not identify the Project site as within a flood hazard zone in the 2009 EIR. However, since the preparation of the 2009 EIR, FEMA published an updated FIRM

for Alameda County in 2018 (FEMA maps number 06001C0067H, effective date December 21, 2018; FEMA, 2018a).¹ The 2018 FIRM identifies the Project site as partially within the 100-year flood hazard zone. According to the 2018 FIRM, portions of the Project site have a base flood elevation (BFE) of 4.1 feet City of Oakland Datum (COD) and are within the 2018 FIRM Zone AE coastal flood hazard area (FEMA, 2018b).² As such, water levels this high are estimated to inundate portions of the Project site during a 100-year flood event.

Sea Level Rise

As discussed in Section IV.N, *Greenhouse Gas Emissions*, a rise in average global temperatures due largely to an increase in human-induced greenhouse gas emissions will be accompanied by a rise in the global sea level. Climate change is already affecting California and Bay Area communities and in the last century, San Francisco Bay water levels have risen nearly 8 inches (NOAA, 2018). As sea level rise increases, the flooding hazard from San Francisco Bay will also increase, causing greater frequency and depth of inundation, particularly during storm-induced flooding.

Since preparation of the 2009 EIR, the state of California has provided, and continues to update, planning guidance for assessing and adapting to the impacts of sea level rise. In 2013, state guidance was documented in *State of California Sea-Level Rise Guidance Document 2013 Update* (CO-CAT, 2013), which incorporated the most recent scientific findings from the National Academy of Science National Research Council. For the San Francisco Bay Region, the National Research Council projected likely sea level rise of 11 inches by 2050 and 36 inches by 2100. These projections considered regional sea levels and vertical land motion.

The City's 2016-2021 *Local Hazard Mitigation Plan* (Mitigation Plan) (City of Oakland, 2016a), and the *Preliminary Sea Level Rise Road Map* (City of Oakland, 2017), both consider impacts from sea-level rise based on this 2013 state guidance. To address existing and future development susceptible to this rise in water levels, the City's *Preliminary Sea Level Rise Road Map* identifies a process for the City to improve the resilience of infrastructure, residents and employees. Moreover, the Mitigation Plan includes a mitigation measure to assess sea level rise impacts within the Port of Oakland, an area which includes the Project site. As part of the Mitigation Plan, and pursuant to AB 691, the Port of Oakland submitted *Sea Level Rise Assessment to the State Land Commission July 1, 2019*, which was meant as high-level analysis providing different sea level rise impact scenarios, qualitative financial impacts, and potential protection/preservation strategies that the Port may consider and further evaluate in the future. The Port's analysis considered sea level rise projections through 2100 developed in accordance with the California Ocean Protection Council's (OPC) 2018 guidance (see below). Additional details about these two

¹ A 100-year flood event has a 1% probability of being exceeded in any given year. Because this event's probability resets each year, it is possible, although unlikely, for more than one 100-year flood to occur within any given period 100 years long. A 500-year flood event has a 0.2 % probability of being exceeded in any given year.

² A *vertical datum* is a surface of zero elevation to which heights of various points are referenced. Traditionally, vertical datums are established by classical survey methods (i.e. geodetic leveling) to measure height differences relative to the surface of the earth. FEMA uses the North American Vertical Datum (NAVD) and the City of Oakland uses the City of Oakland Datum (COD). The conversion between NAVD and COD is: 0 feet COD = 5.65 feet NAVD, or NAVD elevation minus 5.65 feet equals the COD elevation (Moffat & Nichol, 2011).

policies (2016-2021 Local Hazard Mitigation Plan and the Preliminary Sea Level Rise Road Map), are presented under *Local Plans, Ordinances and Policies*, below.

As an update to the state’s 2013 guidance, the OPC released a revised state guidance in 2018. The *State of California Sea-Level Rise California 2018 Update* incorporates the most recent scientific findings from Griggs et al. (2017). This latest guidance adopted a probabilistic approach and produced estimates of the likely range of global sea level rise under different emission scenarios, where the “likely range” covers the central 66 percent of the probability distribution (i.e., the sea levels that fall within the range created by the value that is 17 percent likely to occur and the value that is 83 percent likely to occur).^{3,4,5} To be precautionary in safeguarding the people and resources of California and to inform the development of sufficient adaptation pathways and contingency plans, the 2018 OPC report provides a range of projections based on *low, medium-high* and *extreme* levels of risk aversion.

The low risk aversion projection is best suited to fairly risk-tolerant elements; it represents an approximate 17 percent chance of being exceeded, and as such, provides an appropriate projection for adaptive, lower consequence decisions (e.g. unpaved coastal trail) but will not adequately address higher impact, lower probability sea level rise conditions. The medium-high risk aversion projection, which represents a 0.5 percent chance of being exceeded, is useful for providing a precautionary projection that can be used for less adaptive, more vulnerable projects or populations that will experience medium to high consequences because of underestimating sea level rise (e.g. coastal housing development, such as the Approved Project and Project Modifications). The extreme aversion projection is applied primarily to high consequence projects with a design life beyond 2050 that have little to no adaptive capacity, would be irreversibly destroyed or significantly costly to relocate/repair, or would have considerable public health, public safety, or environmental impacts should this level of sea level rise occur (OPC, 2018). Because the extreme risk aversion projection is primarily intended for consideration of hospitals, or other critical services, it is not considered further in this SEIR.

Based on this updated 2018 OPC guidance, by 2050 the San Francisco Bay is expected to experience 1.1 feet of sea level rise under the low risk aversion projection, or up to 1.9 feet of rise under the medium-high risk aversion projection. By 2070, the amount of sea level rise will depend on future greenhouse gas emissions scenarios. Hence, for 2070 and beyond, OPC provides a range of sea level rise projections, corresponding to a range of low to high emissions scenarios. For 2070, the projected sea level rise increases to 1.5 to 1.9 feet of sea level rise under the low risk aversion projection, and to 3.1 to 3.5 feet under the medium-high risk aversion projection. The projections for 2100 sea level rise are 2.4 to 3.4 feet under the low risk aversion

³ Probabilistic is defined as: based on or adapted to a theory of probability; subject to or involving chance variation.

⁴ The updated OPC Guidance considers the emissions scenarios used by the Intergovernmental Panel on Climate Change’s Fifth Assessment Report (IPCC Fifth Assessment) called Representative Concentration Pathways or RCPs. There are four RCPs, named for the associated radiative heat forcing level, in watts per square meter, in 2100: RCP 2.6, 4.5, 6.0 and 8.5. Each RCP represents a family of possible underlying socioeconomic conditions, policy options and technological considerations, spanning from a low-end scenario (RCP 2.6) that requires significant emissions reductions to a high-end, “business-as-usual,” fossil-fuel-intensive emission scenario (RCP 8.5).

⁵ The conversion between NAVD and COD is: 0 feet COD = 5.65 feet NAVD, or NAVD elevation minus 5.65 feet equals the COD elevation (Moffat & Nichol, 2011).

projection, and 5.7 to 6.9 feet, under the medium-high risk aversion projection. These projected amounts of sea level rise are summarized in **Table IV.D-1**, and are added to the present-day flood water level (referred to by FEMA as Base Flood Elevation or BFE) to provide estimates of future BFEs.

**TABLE IV.D-1
 PROJECTED SEA LEVEL RISE AND FUTURE BASE FLOOD ELEVATIONS AT THE PROJECT SITE**

Year	Low Risk Aversion Projection (66% probability)		Medium-High Risk Aversion Projection (0.5% probability)	
	Projected SLR (feet)	Projected 100-yr BFE (feet COD)	Projected SLR (feet)	Projected 100-yr BFE (feet COD)
2019	0.0	4.1	0.0	4.1
2040	0.8	4.9	1.3	5.4
2050	1.1	5.2	1.9	6.0
2060	1.3 – 1.5	5.4 – 5.6	2.4 – 2.6	6.5 – 6.7
2070	1.5 – 1.9	5.6 – 6.0	3.1 – 3.5	7.2 – 7.6
2100	2.4 – 3.4	6.5 – 7.5	5.7 – 6.9	9.8 – 11.0

NOTES:

BFE = Base Flood Elevation
 SLR = Sea Level Rise
 COD = City of Oakland datum.

The conversion between North American Vertical Datum (NAVD) and COD is: 0 feet COD = 5.65 feet NAVD.

SOURCE: Ocean Protection Council, 2018; FEMA, 2018; and Moffat & Nichol, 2011.

The projections in Table IV.D-1 are similar to, though somewhat higher than, BCDC’s most recent consideration of sea level rise (e.g. BCDC’s 2017 Adapting to Rising Tides [ART] Bay Area Sea Level Rise Analysis and Mapping Project), which is based upon the 2013 California State guidance for sea level rise projections described above. According to the 2013 study, the state’s range for sea level rise relative to 2000 levels was for an increase of between 0.4 to 2.0 feet by 2050 and 1.4 to 5.5 feet by 2100 (BCDC, 2017). Although BCDC’s ART analysis and mapping used the older sea level rise projections, BCDC acknowledges that the more recent 2018 OPC guidance will help local agencies update their analysis and decision-making (BCDC, 2019).

IV.D.2 Regulatory Setting

Since preparation of the 2009 EIR, there have been minimal regulatory changes related to hydrology or water quality relevant to this SEIR analysis. The following programs and policies related to marinas are included for additional information, and those addressing sea level rise are included as they represent new policies relevant to the Project Modifications.

Federal and State

Clean Marinas Programs

The Clean Marinas Programs are a voluntary certification through the Association of Marina Industries (Clean Marinas, 2017). The Clean Marina Program educates marina operators and

users about the latest regulatory requirements and the newest products and processes to combat pollution. The Association of Marina Industries has compiled the common Best Management Practices (BMPs) found in Clean Marina programs across the country. In addition to this national guidance, the California Coastal Commission offers the *California Clean Marina Toolkit* (Gordon and Matuk, 2004) as an educational tool for marina operators. According to these guidance tools, at a minimum a clean marina complies with environmental laws and regulations. However, a clean marina also strives to maintain a healthy, pollution-free environment by providing services that support clean boating, educating customers about clean boating practices, and training staff to be partners in the clean marina program.

Local Plans, Ordinances and Policies

San Francisco Bay Conservation and Development Commission (BCDC)

Regulations and requirements associated with the BCDC as required under the McAteer-Petris Act are discussed in the 2009 EIR. Since the 2009 EIR, BCDC has developed two guidance documents for development within their jurisdiction, both of which apply to the Project site: *Adapting to Rising Tides Alameda County Subregional Project* (2015) and *Oakland/Alameda Resilience Study* (2016). The *Adapting to Rising Tides Alameda County Subregional Project* provides adaptation responses for vulnerabilities identified across five broad asset categories: overarching, community land use, transportation, utilities, shorelines. Includes possible planning mechanisms, governance structures, or collaborative approaches that could be used to implement actions. The *Oakland/Alameda Resilience Study* includes adaptation responses for vulnerabilities identified in four sectors: schools, childcare facilities, senior case facilities, and communities.

City of Oakland General Plan

Subsequent to the 2009 EIR, the City of Oakland *Safety Element* (Adopted 2004, Amended 2012) of the Oakland General Plan added the following policy regarding flooding hazards that applies to the Project.

- ***Policy FL-1:*** Enforce and update local ordinances, and comply with regional orders, that would reduce the risk of storm-induced flooding.
 - *Action FL-1.2:* Continue to require that subdivisions be designed to minimize flood damage by, among other things, having lots and rights-of-way be laid out for the provision of approved sewer and drainage facilities, providing on-site detention facilities whenever practicable and having utility facilities be constructed in ways that reduce or eliminate flood damage.

City of Oakland Preliminary Sea Level Rise Road Map

The City of Oakland *Preliminary Sea Level Rise Road Map* states that the forecasted sea level rise by the year 2100 could, without action, substantially impact shoreline areas along the Inner Harbor, Port of Oakland seaport, the former Oakland Army Base and low lying coastal residences. To address existing and future development susceptible to this rise in water levels, the road map identifies a process for the City to improve the resilience of infrastructure, residents and employees (City of Oakland, 2017).

City of Oakland Hazard Mitigation Plan

The *City of Oakland 2016-2021 Hazard Mitigation Plan* includes 21 high-priority strategies for hazard mitigation, many of which specifically address storm events, flooding, and the effects of future sea level rise. Each of the identified strategies includes a prioritization ranking, a timeline, funding source, and specific list of actions and benefits as the City takes steps to implement them under the Mitigation Plan:

- Infrastructure
 - (3) Green Infrastructure Planning.
 - (4) “Detain the Rain” – Stormwater detention on private property.
 - (5) City of Oakland, Stormwater infrastructure improvements
 - (6) Review and Collaborate with BCDC on Adapting to Rising Tides Mitigation strategies.
- Port of Oakland – Airport and Maritime Mitigations
 - (15) Oakland International Airport, Old Earhart Road Floodwall Improvements
 - (16) Oakland International Airport, Perimeter Dike
 - (18) Middle Harbor Shoreline Park Dike repair
 - (21) Sea Level Rise Vulnerability and Assessment Improvement Plan

Oakland Standard Conditions of Approval (SCAs)

The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) in 2008, and they have since been amended and revised several times.⁶ Like other regulations, the SCAs apply to projects in the City regardless of their CEQA impacts. The SCAs are not mitigation measures and therefore are not listed as mitigation measures. If the Project Modifications are approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project Modifications. With implementation of the SCAs, some of the mitigation measures from the 2009 EIR are no longer needed, and this SEIR notes when that occurs.⁷ Below are the SCAs relevant to hydrology and water quality:

- **SCA HYD-1 (60): Structures in a Flood Zone.** *Prior to approval of construction-related permit.* The project shall be designed to ensure that new structures within a 100-year flood zone do not interfere with the flow of water or increase flooding. The project applicant shall submit plans and hydrological calculations for City review and approval with the construction-related drawings that show finished site grades and floor elevations elevated above the BFE.

⁶ A revised set of SCAs was recently published by the City of Oakland in December, 2020.

⁷ Where SCAs replace mitigation measures for the Project Modifications, such replacement does not indicate that the Project Modifications would have new or substantially more severe environmental impacts than the Approved Project.

- **SCA HYD-2 (61): Bay Conservation and Development Commission (BCDC) Approval.** *Prior to activity requiring permit/approval from BCDC.* The project applicant shall obtain the necessary permit/approval, if required, from the Bay Conservation and Development Commission (BCDC) for work within BCDC's jurisdiction to address issues such as but not limited to shoreline public access and sea level rise. The project applicant shall submit evidence of the permit/approval to the City and comply with all requirements and conditions of the permit/approval.

IV.D.3 Impacts and Mitigation Measures

Significance Criteria

The City of Oakland has established thresholds of significance for CEQA impacts, which incorporate those in Appendix G of the CEQA Guidelines (City of Oakland, 2016b). Based on these thresholds, the Project Modifications would have a significant adverse impact on the environment if it would:

- A. Violate any water quality standards or waste discharge requirements;
- B. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or proposed uses for which permits have been granted);
- C. Result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters;
- D. Result in substantial flooding on- or off-site;
- E. Create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems;
- F. Create or contribute substantial runoff which would be an additional source of polluted runoff;
- G. Otherwise substantially degrade water quality;
- H. Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, that would impede or redirect flood flows;
- I. Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- J. Expose people or structures to a substantial risk of loss, injury, or death involving flooding;
- K. Expose people or structures to a substantial risk of loss, injury, or death as a result of inundation by seiche, tsunami, or mudflow;
- L. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course, or increasing the rate or amount of flow, of a creek, river, or stream in a manner that would result in substantial erosion, siltation, or flooding, both on- or off-site; or

M. Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect hydrologic resources.⁸

The changes to Appendix G of the State CEQA Guidelines effective in December 2018 were intended to reflect recent changes to the CEQA statutes and court decisions. Specifically, changes to Appendix G of the CEQA Guidelines considers the direct, indirect, or cumulative effects on impeding or redirecting flood flows, rather than the previous criteria of the effects of flooding *on* the project or occupants that are located within the 100-year flood zone. In addition, the Appendix G no longer includes the criterion of the effect of seiche, tsunami, or mudflows *on* a project. Instead, Appendix G now asks if the project would risk release of pollutants in flood hazard, tsunami, or seiche zones. To the extent that the topics or questions in Appendix G are not reflected in the City's thresholds, these topics and questions have been taken into consideration in the impact analysis below, even though the determination of significance relies on the City's thresholds.

Methodology

Consistent with CEQA guidance, the SEIR is required to evaluate only the changes in the project, circumstances, or new information that could give rise to new significant environmental impacts or substantially more severe environmental impacts than were analyzed in the 2009 EIR. As such, in accordance with CEQA Guidelines Section 15163, this SEIR contains information necessary to disclose environmental impacts from the Project Modifications that were not analyzed in the 2009 EIR or would be substantially more severe than anticipated by the 2009 EIR. This SEIR evaluates the Project Modifications using the City's current methodology, significance criteria, and thresholds. The analysis relies on the environmental baseline, which is the physical circumstances existing at the time the NOP was published in September 2018, and also compares the Project Modification to the Approved Project to determine if the modifications create any new or substantially more severe impacts on the environment. This SEIR discusses new City requirements and analysis methods established since preparation of the 2009 EIR, such as the incorporation of the City's SCAs, which would be required conditions of approval for the Project Modifications.

Changes that have occurred to the environmental and regulatory setting since preparation of the 2009 EIR are described above. The City's CEQA Thresholds of Significance for hydrology and water quality have been rearranged in order, but are not changed substantively since preparation of the 2009 EIR. The only substantive and relevant change to the existing setting regarding hydrology and water quality is related to the 2018 FIRM and current sea level rise projections. The following impact discussions and analyses focus on the activities associated with the Project Modifications and the potential for hydrology and water quality impacts associated with those activities.

⁸ Note: Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of water quality through (a) discharging a substantial amount of pollutants into a creek, (b) significantly modifying the natural flow of the water or capacity, (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability, or (d) substantially endangering public or private property or threatening public health or safety.

Sea Level Rise Impacts to Flooding

At the time of the 2009 EIR (Draft published in 2005), sea level rise related flooding impacts were not a codified analysis under CEQA nor were they a component of the City of Oakland's 2004 CEQA Thresholds/Criteria of Significance Guidelines in use. Consequently, an assessment of the potential for significant sea level rise induced flooding effects on the environment was not discussed or evaluated in the 2009 EIR. Sea level rise risk is assessed based on best available and commonly used science and according to sensitive project features including proposed land use, project location, building elevations, and drainage plan. Although Project Modifications would potentially change the location of one tower to Parcel L or M potentially resulting in two towers on Parcel M, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would expand the Project site by approximately 10 acres of water surface to accommodate the expanded marina. However, they would not alter the Approved Project's Project site in terms of land uses, overall building envelopes, circulation plan or drainage plans. Therefore, the Project Modifications would have no impact with respect to sea level rise risk. As discussed in the Section IV.N, *Greenhouse Gas Emissions*, emissions from the Project Modifications would not make a cumulatively considerable contribution to GHG emissions; GHG emissions contribute to sea level rise. However, to address comments received on the Notice of Preparation, sea level rise related flooding is evaluated in this SEIR below following *Impacts*, and is included for informational purposes.

Impacts

Water Quality

Impact HYD-1: The Project Modifications would not violate water quality standards, result in erosion or siltation on- or off-site, contribute substantial runoff, and/or substantially degrade water quality. (Criteria A, C, F, and G) (*Less than Significant*)

Project Construction

Although the Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV, corresponding to a decrease in building mass in Phases I or II, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would occur within the same overall building envelopes as the Approved Project. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project and this SEIR assumes that there would be no substantial increase in duration of onshore construction-related activity with approval of the Project Modifications.

The Project Modifications would result in an approximate 10 percent increase in labor force and associated worker trips to and from the site, as well as an approximately 10 percent increase in delivery trips to develop the additional 600 residential units on Phases III and IV. The marina expansion component (Phase VI) would result in additional construction-related delivery trips and extended construction timeframe due to limited in-water construction. Phase VI is anticipated to be constructed over five seasons rather than one season, with approximately 20 construction

materials delivery trips per season. In addition, the FEMA flood zone was raised from BFE 9' to 10' NAVD 88 (from 3.23' to 4.23' City of Oakland datum). The Approved Project had set the minimum finished floor to 7.2 (City of Oakland datum). This finished floor still accommodates three feet of sea level rise, even with the new (higher) flood elevation. No additional soil is required to accommodate sea level rise combined with the increased height of the base flood elevation on the FIRM maps for Parcels K, L or M.

While the Project Modifications would expand the in-water construction footprint beyond that considered under the Approved Project, the construction methods analyzed in the 2009 EIR would not change and 2009 Mitigation Measures related to Hydrology and Water Quality requiring permits and agreements from the appropriate regulatory agencies for in-water construction activities would apply. In-water construction related to the expanded marina would consist of pre-manufactured concrete floating dock system comprised of 14 docks to be constructed in five phases. The marina expansion component of the Project Modifications would shift marina construction away from Clinton Basin and thereby reduce the need for dredging and use of dredged material as fill. As such, potential impacts associated with dredging in Clinton Basin, which could require disturbance, removal, and disposal of contaminated sediment that may result in adverse impacts to aquatic organisms and water quality, would be reduced compared with the impacts identified in the 2009 EIR. Since the preparation of the 2009 EIR, the City requires SCA HYD-2: Bay Conservation and Development Commission (BCDC) Approval, to be implemented prior to any activity requiring a permit or approval from BCDC, which further protects Bay waters. With incorporation of City of Oakland SCA HYD-2, in-water construction-related water quality impacts of the Project Modifications would be within the impacts analyzed in the 2009 EIR.

Project Operation

Site Plan

The Project Modifications would not include changes to the Approved Project's site plan including proposed landscaping and open lawns, other than the relocation of one tower and an expanded marina (see next section). In addition, the Approved Project's proposed changes to impervious surfaces and drainage patterns remain unchanged from what was analyzed in the 2009 EIR. Consequently, potential water quality impacts would not differ from the Approved Project.

Marina Expansion

As with the Approved Project, no fuel station would be introduced and the expanded marina would include boat-serving utilities including a pump-out facility for proper sewage disposal, power outlet centers, transformers, and lighting. Compared with the Approved Project, the expanded marina would increase the amount of marine-related uses of pesticides, cleaners, and other common household products that could enter stormwater runoff. The additional 158 slips and related increase in marine vessels, including the existing water taxi service, could result in the release of minor amounts of oil, grease, and other mechanical compounds that could enter the bay and stormwater runoff.

As with the Approved Project, the marina expansion component of the Project Modifications would be required by the Regional Water Quality Control Board (RWQCB) to incorporate post

construction BMPs to treat stormwater and control discharge of wastes from the vessels used at the marinas. Discharge of fuel, oil, oily wastes, and hazardous substances is prohibited into or upon the navigable waters of the United States or the waters of the contiguous zone if such discharge causes a film or sheen upon or discoloration of the surface of the water, or causes a sludge or emulsion beneath the surface of the water in accordance with the Clean Water Act as enforced by the RWQCB (SWRCB, 2021). If a discharge occurs, the responsible party must control the source of the discharge, prevent further discharges, halt or slow the spread of the discharge, and remove as much of the substance as possible using mechanical means such as containment booms, vacuum trucks, and absorbents. In addition, the Project Modifications include a Water Quality Management Plan (Anchor QEA, 2017), developed to comply with the voluntary Clean Marinas Program to control adverse impacts to water quality related to long-term use of the marina. With implementation of RWQCB required BMPs, the Project Modifications would ensure that chemicals such as the cleaning agents do not flow into the estuary and result in a significant water quality impact. The impact would be less than significant.

Mitigation: None required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impact to surface water and groundwater quality is the same as identified in the 2009 EIR, as addressed under Impact D.1 as mitigated by 2009 Mitigation Measure D.1 (*less than significant with mitigation*), Impact D.2 as mitigated by 2009 Mitigation Measure D.2 (*less than significant with mitigation*), Impact D.3 (*less than significant*), Impact D.4 (*Less than significant*), Impact D.5 as mitigated by 2009 Mitigation Measure D.5 (*less than significant with mitigation*) and Impact D.6 (*less than significant with mitigation*). The new SCA (SCA HYD-2) applies to the construction of the Project Modifications' marina expansion and all other work within the shoreline band of BCDC's jurisdiction and is consistent with the 2009 analysis. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, "changed circumstances," or "new information" pursuant to CEQA Guidelines Section 15162.

Groundwater Supplies and Recharge

Impact HYD-2: The Project Modifications would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge that would result in a net deficit in aquifer volume or lowering the local groundwater table. (Criterion B) (*Less than Significant*)

Construction and operation of the Project Modifications would not alter the onshore impervious surfaces of the Approved Project as analyzed in the 2009 EIR. Further, all in-water related construction and operation activities would not interact with groundwater. Consequently, groundwater supply and recharge related impacts are not reevaluated herein.

Mitigation: None required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impact to groundwater is the same as identified in the 2009 EIR as analyzed under Impact D.6 as mitigated by 2009 Mitigation Measure D.6 (*less than significant with mitigation*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information” pursuant to CEQA Guidelines Section 15162.

Flooding Impacts

Impact HYD-3: The Project Modifications would not result in substantial flooding on or offsite or create or contribute substantial runoff, which would exceed the capacity of existing or planned stormwater drainage systems. (Criteria D and E) (*Less than Significant*)

Construction and operation of the Project Modifications would not alter onshore impervious surfaces or stormwater drainage systems compared to those analyzed in the 2009 EIR. Further, no in-water related construction and operation activities associated with the expanded marina would interact with stormwater drainage systems. Consequently, flooding and runoff impacts by the Project Modifications would be the same as the Approved Project impacts. The Approved Project was determined to have a beneficial effect.

Mitigation: None required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impact to stormwater is the same as identified in the 2009 EIR as analyzed under Impact D.8. (*less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information” pursuant to CEQA Guidelines Section 15162.

Impact HYD-4: The Project Modifications would not expose people or structures to a significant risk of loss, injury or death involving flooding. (Criteria H, I, J, and K) (*Less than Significant*)

Although Project Modifications would potentially change the location of one tower, no change is proposed to the number or height of the Approved Project towers. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Modified Project assumes the same onshore Project site, site plan, and overall building envelopes as the Approved Project and impacts related to flooding or damage by seiche, tsunami, or mudflow are unchanged from those identified in the 2009 EIR (Criterion K). Additionally, because the Project Modifications would not substantially alter the onshore site plan and all development related to the marina expansion would be in-water and adaptable to changes in the water level by nature, the marina expansion component would not result in a significant impact with respect to flooding or

sea level rise induced flooding (Criterion J). Since the preparation of the 2009 EIR, and as discussed in *Environmental Setting* above, FEMA’s estimate of the 100-year water level and the current projections for San Francisco Bay sea level rise have been updated. The 100-year water level estimate was increased by 0.4 feet and as of 2018 is 4.1 feet COD (FEMA, 2018). Although the 2018 FIRM places a portion of the Project site, including portions of Phases III and IV, within the 100-year flood hazard area, SCA HYD-1: Structures in a Flood Zone, would apply and would ensure the Project Modifications would not interfere with the flow of water or increase flooding, thus reducing the flooding impacts to a less than significant level (Criteria H and I).

Mitigation: None required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impact to flooding is the same as identified in the 2009 EIR as analyzed under Impact D.7 (*less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Creek Impacts

Impact HYD-5: The Project Modifications would not alter site drainage that could generate a change to flow of a creek or stream, and would not conflict with elements of the City of Oakland creek protection ordinance. (Criteria L and M) (*Less than Significant with Mitigation*)

Although Project Modifications would potentially change the location of one tower, no change is proposed to the number or height of the Approved Project towers. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications assumes the same onshore Project site, site plan, and overall building envelopes as the Approved Project and impacts related to creeks are unchanged from those identified in the 2009 EIR.

Aside from the Estuary, which is considered a waterway under the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16), no traditional creeks occur on or near the Project site. The City’s ordinance is intended to address potential water quality impacts from stormwater and other discharges into identified waterways. This ordinance is not applicable to lands under Port permitting authority; however, 2009 Mitigation Measure D.1 requires the Approved Project to comply with the provisions of the Creek Protection Ordinance, and obtain a City Creek Permit to ensure no impacts on the estuary. This mitigation would apply to the Project Modifications and consequently, creek related water quality impacts by the Project Modifications would be within the impacts disclosed in the 2009 EIR.

2009 Mitigation Measure D.1: The project sponsor shall comply with all NPDES requirements, RWQCB General Construction Permit requirements, and all City regulations and Creek Protection Permits requirements.

Mitigation: 2009 Mitigation Measure D.1.

Significance after Mitigation: Less Than Significant.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impact to creek flow is the same as identified in the 2009 EIR as analyzed under Impact D.1 as mitigated by 2009 Mitigation Measure D.1 (*less than significant with mitigation*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information,” pursuant to CEQA Guidelines Section 15162.

Cumulative Impacts

Cumulative Context

The cumulative context used for the cumulative assessment of water quality and hydrology impacts is the East Bay Plain of the San Francisco Bay Basin. This includes the city of Oakland and its surrounding areas (per the Oakland Cumulative Growth Scenario as refined for this SEIR).

Cumulative Impacts

Impact HYD-6: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project site, would not result in cumulative impacts with respect to hydrology and water quality. (*Less than Significant with Mitigation*)

As addressed above, although the Project Modifications would add approximately 10 acres of water surface area and potentially shift the approved building envelope from Phase II to Phases III or IV, they would not alter the Approved Project’s onshore Project site, land uses, overall building envelopes, circulation plan, or drainage plan, or construction methods analyzed in the 2009 EIR and would not result in new or more severe significant impacts compared with what was approved in the 2009 EIR. As a result, the Project Modifications would have less-than-significant impacts with respect to water quality, groundwater supplies, stormwater, and creeks and would make a less than cumulatively considerable contribution to significant cumulative impacts related to these criteria.

Water Quality

Development in the San Francisco Bay Basin would continue to contribute runoff and discharges to the Bay that contain constituents from agriculture, industrial, and urban land uses that would continue to potentially impact water quality. Likewise, these activities would infiltrate and affect

groundwater quality in the San Francisco Bay Basin. Significant cumulative impacts related to hydrology and water quality could occur if the incremental impacts of the Project Modifications combined with the incremental impacts of one or more cumulative projects to create a significant impact.

Cumulative projects in the City of Oakland would be subject to the same regulatory requirements discussed for the Approved Project and the Project Modifications, including City of Oakland Creek Protection Ordinance and any other applicable City of Oakland ordinances and SCAs regarding water quality, and ACCWP NPDES permitting requirements, current RWQCB General Construction Permit requirements, the Water Quality Management Plan, and Section 404 permit requirements as applicable. Projects outside of Oakland, but within the San Francisco Basin, also would be subject to NPDES permitting requirements, RWQCB General Construction Permit requirements, and Section 404 permit requirements. Given the highly regulated nature of water quality related to runoff, it is unlikely that the residual less-than-significant impacts of the Project Modifications would combine with the potential residual effects of cumulative projects to cause a potential significant cumulative impact. The Bay is an impacted waterway, but due to the regulations concerning water quality that apply to the Project Modifications, the Project Modifications would not make a cumulatively considerable contribution to significant cumulative water quality impacts. Accordingly, no significant cumulative impact with respect to hydrology and water quality would result.

Flooding

As identified under Impact HYD-4, the Modified Project would result in no new impacts related to flooding or damage by seiche, tsunami, or mudflow. Additionally, because the Project Modifications would not substantially alter the onshore site plan and all development related to the marina expansion would be in-water and adaptable to changes in the water level by nature, the marina expansion component would not interact with stormwater drainage systems or result in a significant impact with respect to flooding or sea level rise induced flooding. The less-than-significant flooding impacts by the Project Modifications are limited to the Project site and would not combine with cumulatively foreseeable projects to generate a cumulative impact. With respect to development within a floodplain and impacts associated with this, cumulative projects within the City would be subject to the same regulatory requirements discussed, SCA HYD-1 to avoid potential impacts in a floodplain. Thus, the Project Modifications and cumulative projects would not combine to generate residual effects that would cause a significant cumulative impact. Accordingly, no significant cumulative impact with respect to flooding and development in a floodplain would result.

Mitigation: 2009 Mitigation Measure D.1.

Significance after Mitigation: Less Than Significant.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The 2009 EIR determined that the Cumulative plus Approved Project would have a *less-than-significant* hydrology and water quality impact (Impact D.9). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from

changes to the Project due to Project Modifications, “changed circumstances,” or “new information” pursuant to CEQA Guidelines Section 15162.

Other Topics: Sea Level Rise

The Approved Project could expose people or structures to a significant risk of loss, injury or death involving flooding.

The Project Applicant was granted a BCDC permit for the Approved Project in February 2011 which was amended in May 2018. To accommodate sea level rise, the Project described in the BCDC permit application would raise Project site ground surface elevations around the site perimeter and throughout much of the interior, as well as raise the buildings’ elevations. The additional soil needed to raise ground surface elevations was analyzed in the 2009 EIR, which proposed elevating buildings sufficient to address the updated flood-hazard maps, which are based on updated sea-level rise data. To address sea level rise along the shoreline edge, and preempt the need for adaptation strategies over the initial decades, the Project site shoreline will be graded to 6.0 feet above mean high water. According to the BCDC permit, this perimeter elevation would remain above the 100-year water level with the addition of 28 inches of sea level rise. In addition, the buildings’ Finished Floor Elevation will be a minimum of 6.5 feet above mean high water, an elevation that would remain above the 100-year water level even with the addition of 34 inches of sea level rise.⁹

As noted above, the Approved Project’s BCDC permit relied on the 100-year water levels in effect before FEMA’s 2018 update and OPC’s 2013 sea level rise projections and followed BCDC’s standard strategies for coping with sea level rise risk at that time. However, the research and science around sea level rise is regularly updated as is the public’s awareness of coastal developments’ vulnerabilities. As sea level rise projections and mapping evolve and gain accuracy, agency guidance for appropriate adaptation measures also evolve.

The OPC 2018 projections and guidance, as summarized in Table IV-D.1 above, is considered the best available information for the Project site at this time, and includes the medium-high risk aversion projections rising more rapidly than the projections considered in the BCDC permit.¹⁰ According to the 2018 OPC projections, the adaptation measures described in the BCDC permit would last until about 2070 for the medium-high risk aversion scenario and until about 2100 for the low risk aversion scenario.

According to the BCDC permit, adaptation for sea level rise greater than the Project’s initial design elevations is feasible for the Project site because the Approved Project’s site plan includes adequate available horizontal space along the shoreline to accommodate a variety of improvements and adaptation measures, including increasing perimeter elevations. As such, the BCDC permit found that with the initial design elevations described above and the capacity to

⁹ Grading Plans for Phases I and III dated July 2017 and May 2017 respectively indicate this requirement has been met.

¹⁰ Although BCDC’s 2017 ART analysis and mapping used OPC’s 2013 projections, BCDC acknowledges that the 2018 OPC projections should be considered by local agencies as they update their analysis and decision-making (BCDC, 2019).

implement additional adaptation measures as needed when sea level rise increases further, the Approved Project addresses BCDC safety standards.

IV.D.4 References

- Anchor QEA, 2017. *Brooklyn Basin Marina, Water Quality Management Plan*. September 2017.
- California Ocean Protection Council and California Natural Resources Agency, *State of California Sea-Level Rise Guidance 2018 Update*.
- City of Oakland, 2012. *General Plan, Safety Element*. Adopted 2004, Amended 2012.
- , 2016a. *2016 – 2021 Local Hazard Mitigation Plan*. June 7, 2016.
- , 2016b. *CEQA Thresholds of Significance Guidelines*. October 17, 2016.
- , *Oakland Preliminary Sea Level Rise Road Map*, Fall 2017.
- Clean Marinas, 2017. *Clean Marinas Program*. Available <http://www.cleanmarina.org/thecleanmanual.html>. Accessed on June 27, 2017.
- Coastal and Ocean Working Group of the California Climate Action Team (CO-CAT), 2013. Ocean Protection Council’s Science Advisory Team, and the California Ocean Science Trust (OPC), *State of California Sea-Level Rise Guidance Document March 2013 Update*. March 2013.
- Gordon, M.F. and Matuk, V., 2004. *California Clean Marina Toolkit*. May 2004.
- Moffat & Nichol. 2011. *Vulnerability to Sea Level Rise & Tsunami Inundation, Brooklyn Basin Development*, M&N Job No: 4942-03. Prepared for the Signature Development.
- National Oceanic and Atmospheric Administration (NOAA), 2018. Center for Operational Oceanographic Products and Services (CO-OPS), NOAA Sea-Level Trends 1987-2018, 2018. Available: tidesandcurrents.noaa.gov/sltrends/sltrends_station.shtml?stnid=9414290.
- San Francisco Bay Conservation and Development Commission (BCDC), October 2011. *San Francisco Bay Plan*. Available: http://www.bcdc.ca.gov/plans/sfbay_plan.html. Accessed May 10, 2019.
- , 2017. *Adapting to Rising Tides Bay Area Sea Level Rise Analyses and Mapping Project, Final Report*. September 2017.
- , 2018. *Permit No. 2006.007.02, Amendment No. Two* (originally issued on February 4, 2011, as amended through May 23, 2018).
- , 2019. *Bay Fill for Habitat Restoration, Enhancement, and Creation in a Changing Bay*. Staff Report, May 24, 2019.
- State Water Resources Control Board, March 2021. *OA – Federal, State and Local Laws, and Policy and Regulations*,

https://www.waterboards.ca.gov/water_issues/programs/nps/encyclopedia/0a_laws_policy.html, accessed March 25, 2021.

U.S. Federal Emergency Management Agency (FEMA), 2018a. *Flood Map Service Center: Search All Products; Map Number 08001C0067H*. Available: <https://msc.fema.gov/portal/advanceSearch#searchresultsanchor>. Accessed August 28, 2019.

———, 2018b. *Flood Insurance Study Number 06001CV00 1B, 2B, and 3B Alameda County, California and Incorporated Areas. Initial Countywide FIS Effective Date: August 3, 2009, Revised Countywide FIS Date: December 21, 2018.*

IV.E Cultural Resources and Tribal Cultural Resources

This section presents an analysis of potential impacts on cultural resources and tribal cultural resources that would result from the Project Modifications described in Chapter III, *Project Description*. The affected environment, regulatory setting, and analysis from the 2009 EIR are relied on to the extent relevant in this Supplemental EIR (SEIR), and are discussed to the extent that they differ from those described in the 2009 EIR. This section analyzes the direct, indirect, and cumulative effects of the Project Modifications and compares them to the conclusions of the 2009 EIR; provides modifications (additions, deletions, updates, or other revisions), as needed, to the approved mitigation measures provided in the adopted Final EIR MMRP; and identifies any residual effects that may remain following the implementation of such measures.

IV.E.1 Environmental Setting

Since preparation of the 2009 EIR, there has been substantial and on-going construction of the Approved Project. However, since preparation of the 2009 EIR, there has been no change to the general Prehistoric, Ethnographic, or Paleontological Resources settings relevant to this SEIR analysis. The historic setting has changed in that portions of the Ninth Avenue Terminal as well as other buildings on the Project site have been demolished.

Archaeological Resources

As described in the 2009 EIR, no archaeological features or exposed native soils were identified during the 2005 survey effort; given the significant amount of artificial fill and urban environment, a surface survey was not expected to identify archaeological resources. As described in the 2009 EIR, early archaeological surveys did not identify midden sites in this area of the East Bay, and the area was subject to tidal flows and was not a suitable habitation locality. Historic maps show the project area as mostly bay with small patches of tidal marsh. The archaeological assessment for the 2009 EIR determined that the Project site is in what was historically bay waters and consists of considerable artificial fill material with a low probability of re-deposited archaeological remains or discrete archaeological sites. Given this low probability and the expense and effort of methods that would be required to identify archaeological material on the Project site, the archaeological assessment for the 2009 EIR concluded that extensive discovery techniques and a full testing survey of the Project site was not warranted.

Architectural Resources

Historic Buildings

As identified in the 2009 EIR, the Project site included 15 buildings. Of the 15 buildings and structures located on the Project site, nine were evaluated by Oakland Cultural Heritage Survey (OCHS) for their potential historic significance on the national and local levels. Of the nine evaluated buildings, eight were assigned preliminary ratings based on the city-wide reconnaissance survey completed in 1985-1986, and one was assigned an intensive survey rating

(the Ninth Avenue Terminal) in 1997. The remainder of the buildings on the Project site was surveyed by OCHS, but not assigned letter ratings.¹ In April 2005, Carey & Co. resurveyed and reevaluated all buildings or structures on the Project site for their potential historic significance on national, state, and local levels. The Carey & Co. report, included in the 2009 EIR analysis, concluded that, the Ninth Avenue Terminal notwithstanding, all remaining buildings on the project site were ineligible for National Register of Historic Places (National Register), California Register of Historic Resources, or local designation.

OCHS formally evaluated the Ninth Avenue Terminal in 2004 as part of the City's consideration to designate the Terminal a City Landmark. It was determined that the building met the Oakland Historic Preservation Element and CEQA definition of an historical resource, with an OCHS rating of "A." The building also met the Historic Preservation Element Policy 3.8 definition of a property on the City of Oakland's Local Register of Historical Resources. In addition, the building was recommended eligible for listing in the National Register as an individual resource, and was recommended eligible as a City of Oakland Landmark by the Oakland Landmarks Preservation Advisory Board.

Portions of the Approved Project have been implemented and, as of the NOP (September 2018), all buildings (other than portions of the Ninth Avenue Terminal and wharf) on the Project site have been demolished. Portions of Ninth Avenue Terminal have been demolished in accordance with 2009 Mitigation Measures. Prior to demolition, photos were taken of the Ninth Avenue Terminal that met the Photographic Specifications of the Historic American Building Survey (HABS). Additionally, the Project Applicant retained a photographer to document the rehabilitation of the Terminal Building including time lapse photographs of the rehabilitation. The documentary photographs will be archived locally at the Oakland History Room (OHR) of the Oakland Public Library along with a copy on archival paper of the Oakland Landmark and S-7 Preservation Combining Zone Application Form for the Ninth Avenue Terminal. Digital copies of the photographs were forwarded to the Oakland Cultural Heritage Survey.

Approximately 20,000 square feet of the Ninth Avenue Terminal, including the Bulkhead Building, have been retained. Adaptive re-use and rehabilitation of the Ninth Avenue Terminal included retaining the original windows and expansive truss elements, installing a new wood ceiling similar to the original wood ceiling on the underside of the Terminal Building, re-creating office uses within the interior, and exposing the original tile work on the outside of the building. New materials and color palette were designed to be of the same character as the original building. Although not complete by September 2018, historical exhibits depicting the history of the Oakland Municipal Terminal were in design by the Project Applicant. Exhibits would include a minimum 200 square-foot floor area within the Terminal Building as well as a series of interpretive plaques on the outside of the Terminal Building. The installation is anticipated to be completed by March 2020 and approved in conjunction with the 9th Avenue Terminal Certificate of Occupancy

¹ A= Primary (historical) Importance, F = less than 45 years old or modernized, NR = surveyed, but not rated as a Preliminary Designated Historic Property by OCHS, and presumed to be of little or no historical value at the time of the survey, as evidenced by check marks on the survey maps.

Historic Districts

As identified in the 2009 EIR, the Project site is not eligible for listing as an historic district in the National Register or California Register and does not appear to be eligible for inclusion on the Local Register of Historical Resources as a local Preservation District (“S-7 Zone”).² Since it is not listed or eligible for inclusion on federal, state, or local lists, the area is not considered an historical resource under CEQA Guidelines Section 15064.5(a)(1).

Fifth Avenue Point, a mixed-use community with light industrial and commercial buildings (plus outbuildings and additions) and marina uses on a six-acre parcel is also described in the 2009 EIR. Most structures within this area date to the early to mid-20th century (1900s–1940s). In 1998, OCHS evaluated Fifth Avenue Point as a part of a reconnaissance survey, and assigned preliminary building ratings to four buildings; “D2+” (20–28 5th Avenue), “D2+” (50 5th Avenue), “F3” (375 8th Avenue) and “C2+” (471–499 Embarcadero), none of which are on the Project site. The remaining buildings in Fifth Avenue Point were not rated as Preliminary Designated Historic Properties, because OCHS deemed them to be too recently constructed or of too little historic or architectural interest to assign them a rating.³ Therefore, they were presumed to be of little or no historic value at the time of the survey. The OCHS also assigned Fifth Avenue Point a preliminary rating of “ASI” (Area of Secondary Importance), and three of the four rated properties (75 percent) appeared to contribute (indicated by “+” in the rating) to the local historic district.⁴ While Fifth Avenue Point has been identified as an ASI by OCHS, it is not on the City of Oakland’s Local Register of Historical Resources, and consistent with Policy 3.8 of the Preservation Element, Fifth Avenue Point is not considered an historical resource for CEQA purposes.

IV.E.2 Regulatory Setting

Federal

Since preparation of the 2009 EIR, there has been no change in the federal regulatory environment with respect to cultural resources relevant to this SEIR analysis.

State

Assembly Bill 52

In September of 2014, the California Legislature passed Assembly Bill (AB) 52, which added provisions to the Public Resources Code regarding the evaluation of impacts on tribal cultural resources under CEQA, and consultation requirements with California Native American tribes. In particular, AB 52 now requires lead agencies to analyze project impacts on “tribal cultural resources” separately from archaeological resources (PRC Section 21074; 21083.09). AB 52 defines “tribal cultural resources” in PRC Section 21074 and requires lead agencies to engage in

² The nomination form and associated LPAB staff report suggests that the S-7 Preservation Combining Zone would only apply to the Terminal and wharf, but would not apply to the entire Oak to Ninth Project site. Carey & Co. identifies the proposed resource boundary in its Historic District Boundary Technical Memorandum and Map prepared for this EIR (Appendix G of the 2009 EIR).

³ As evidenced by the check marks over each building on the OCHS survey maps.

⁴ The ASI is entitled “Fifth Avenue Marina District.”

additional consultation procedures with respect to California Native American tribes (PRC Section 21080.3.1, 21080.3.2, 21082.3).

Finally, AB 52, described above, required the Office of Planning and Research to update Appendix G of the CEQA Guidelines to provide sample questions regarding impacts to tribal cultural resources (PRC Section 21083.09). AB 52 applies to those projects for which a lead agency has issued an NOP of an environmental impact report or notice of intent to adopt a negative declaration on or after July 1, 2015; therefore, the provisions of AB 52 apply to these Project Modifications.

Since preparation of the 2009 EIR, there have been no other changes in the state regulatory environment with respect to cultural resources relevant to the this SEIR analysis.

Local Plans, Ordinances and Policies

Since preparation of the 2009 EIR, there has been no change in the local regulatory environment with respect to cultural resources relevant to this SEIR analysis.

Oakland Standard Conditions of Approval (SCAs)

The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) in 2008, and they have since been amended and revised several times.⁵ Like other regulations, the SCAs apply to projects in the City regardless of their CEQA impacts. The SCAs are not mitigation measures and therefore are not listed as mitigation measures. If the Project Modifications are approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project Modifications. With implementation of the SCAs, some of the mitigation measures from the 2009 EIR are no longer needed, and this SEIR notes when that occurs.⁶ Below are the SCAs relevant to cultural resources and tribal cultural resources:

- **SCA CUL-1 (SCA-32): Archaeological and Paleontological Resources – Discovery During Construction.** *During construction.* Pursuant to CEQA Guidelines section 15064.5(f), in the event that any historic or prehistoric subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant shall notify the City and consult with a qualified archaeologist or paleontologist, as applicable, to assess the significance of the find. In the case of discovery of paleontological resources, the assessment shall be done in accordance with the Society of Vertebrate Paleontology standards. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined unnecessary or infeasible by the City. Feasibility of avoidance shall be determined with consideration of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted.

⁵ A revised set of SCAs was recently published by the City of Oakland in December, 2020.

⁶ Where SCAs replace mitigation measures for the Project Modifications, such replacement does not indicate that the Project Modifications would have new or substantially more severe environmental impacts than the Approved Project.

Work may proceed on other parts of the project site while measures for the cultural resources are implemented.

In the event of data recovery of archaeological resources, the project applicant shall submit an Archaeological Research Design and Treatment Plan (ARDTP) prepared by a qualified archaeologist for review and approval by the City. The ARDTP is required to identify how the proposed data recovery program would preserve the significant information the archaeological resource is expected to contain. The ARDTP shall identify the scientific/historic research questions applicable to the expected resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. The ARDTP shall include the analysis and specify the curation and storage methods. Data recovery, in general, shall be limited to the portions of the archaeological resource that could be impacted by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practicable. Because the intent of the ARDTP is to save as much of the archaeological resource as possible, including moving the resource, if feasible, preparation and implementation of the ARDTP would reduce the potential adverse impact to less than significant. The project applicant shall implement the ARDTP at his/her expense.

In the event of excavation of paleontological resources, the project applicant shall submit an excavation plan prepared by a qualified paleontologist to the City for review and approval. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and/or a report prepared by a qualified paleontologist, as appropriate, according to current professional standards and at the expense of the project applicant.

- **SCA CUL-2 (SCA-33): Archaeologically Sensitive Areas – Pre-Construction Measures.** *Prior to approval of construction-related permit; during construction.* The project applicant shall implement either Provision A (Intensive Pre-Construction Study) or Provision B (Construction ALERT Sheet) concerning archaeological resources.

Provision A: Intensive Pre-Construction Study.

The project applicant shall retain a qualified archaeologist to conduct a site-specific, intensive archaeological resources study for review and approval by the City prior to soil-disturbing activities occurring on the project site. The purpose of the site-specific, intensive archaeological resources study is to identify early the potential presence of history-period archaeological resources on the project site. At a minimum, the study shall include:

- a. Subsurface presence/absence studies of the project site. Field studies may include, but are not limited to, auguring and other common methods used to identify the presence of archaeological resources.
- b. A report disseminating the results of this research.
- c. Recommendations for any additional measures that could be necessary to mitigate any adverse impacts to recorded and/or inadvertently discovered cultural resources.

If the results of the study indicate a high potential presence of historic-period archaeological resources on the project site, or a potential resource is discovered, the project applicant shall hire a qualified archaeologist to monitor any ground disturbing activities on the project site during construction and prepare an ALERT sheet pursuant to Provision B below that details what could potentially be found at the project site. Archaeological monitoring would include briefing construction personnel about the type of artifacts that may be present (as referenced

in the ALERT sheet, required per Provision B below) and the procedures to follow if any artifacts are encountered, field recording and sampling in accordance with the Secretary of Interior's Standards and Guidelines for Archaeological Documentation, notifying the appropriate officials if human remains or cultural resources are discovered, and preparing a report to document negative findings after construction is completed if no archaeological resources are discovered during construction.

Provision B: Construction ALERT Sheet.

The project applicant shall prepare a construction "ALERT" sheet developed by a qualified archaeologist for review and approval by the City prior to soil-disturbing activities occurring on the project site. The ALERT sheet shall contain, at a minimum, visuals that depict each type of artifact that could be encountered on the project site. Training by the qualified archaeologist shall be provided to the project's prime contractor, any project subcontractor firms (including demolition, excavation, grading, foundation, and pile driving), and utility firms involved in soil-disturbing activities within the project site.

The ALERT sheet shall state, in addition to the basic archaeological resource protection measures contained in other standard conditions of approval, all work must stop and the City's Environmental Review Officer contacted in the event of discovery of the following cultural materials: concentrations of shellfish remains; evidence of fire (ashes, charcoal, burnt earth, fire-cracked rocks); concentrations of bones; recognizable Native American artifacts (arrowheads, shell beads, stone mortars [bowls], humanly shaped rock); building foundation remains; trash pits, privies (outhouse holes); floor remains; wells; concentrations of bottles, broken dishes, shoes, buttons, cut animal bones, hardware, household items, barrels, etc.; thick layers of burned building debris (charcoal, nails, fused glass, burned plaster, burned dishes); wood structural remains (building, ship, wharf); clay roof/floor tiles; stone walls or footings; or gravestones. Prior to any soil-disturbing activities, each contractor shall be responsible for ensuring that the ALERT sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, and supervisory personnel. The ALERT sheet shall also be posted in a visible location at the project site.

- **SCA CUL-3 (SCA-34): Human Remains – Discovery During Construction.** *During construction.* Pursuant to CEQA Guidelines section 15064.5(e)(1), in the event that human skeletal remains are uncovered at the project site during construction activities, all work shall immediately halt and the project applicant shall notify the City and the Alameda County Coroner. If the County Coroner determines that an investigation of the cause of death is required or that the remains are Native American, all work shall cease within 50 feet of the remains until appropriate arrangements are made. In the event that the remains are Native American, the City shall contact the California Native American Heritage Commission, pursuant to subdivision (c) of section 7050.5 of the California Health and Safety Code. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance, and avoidance measures (if applicable) shall be completed expeditiously and at the expense of the project applicant.

IV.E.3 Impacts and Mitigation Measures

Significance Criteria

The City of Oakland has established thresholds of significance for CEQA impacts, which incorporate those in Appendix G of the CEQA Guidelines (City of Oakland, 2016). Based on these thresholds, the Project Modifications would have a significant impact on the environment if it would:

- A. Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines Section 15064.5. Specifically, a substantial adverse change includes physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be “materially impaired.” The significance of an historical resource is “materially impaired” when a project demolishes or materially alters, in an adverse manner, those physical characteristics of the resource that convey its historical significance and that justify its inclusion on, or eligibility for inclusion on an historical resource list (including the California Register, the National Register, Local Register, or historical resources survey form (DPR Form 523) with a rating of 1-5);
- B. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;
- C. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- D. Disturb any human remains, including those interred outside of formal cemeteries.

In addition, in accordance with the requirements of AB 52 and the related 2018 update to Appendix G of the CEQA Guidelines, the Project Modifications would have a significant impact on the environment if it would:

- A. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe.

Methodology

Consistent with CEQA guidance, the SEIR is required to evaluate only the changes in the project, circumstances, or new information that could give rise to new significant environmental effects or substantial increase in the severity of previously identified significant effects than were disclosed in the 2009 EIR. As such, in accordance with CEQA Guidelines Section 15163, this SEIR contains information necessary to disclose environmental impacts from the Project Modifications that were not analyzed in the 2009 EIR, or would be substantially more severe than anticipated by the 2009 EIR. This SEIR evaluates the Project Modifications using the City’s current methodology, significance criteria, and thresholds. The analysis relies on the environmental baseline, which is the physical circumstances existing at the time the NOP was published in September 2018, and also compares the Project Modification to the Approved Project to

determine if the modifications create any new or substantially more severe impacts on the environment. This SEIR discusses new City requirements and analysis methods established since preparation of the 2009 EIR, such as the incorporation of the City's SCAs, which would be required conditions of approval for the Project Modifications.

Changes that have occurred to the environmental and regulatory setting since preparation of the 2009 EIR are described above. The City's CEQA Thresholds of Significance for cultural resources have not changed since the preparation of the 2009 EIR, with the exception of adding significance criteria E related to tribal cultural resources. The impact discussions and analyses below focus on the activities associated with the Project Modifications and the potential for cultural resources impacts associated with those activities.

Impacts

Historical Resources

Impact CUL-1: The Project Modifications would not cause a substantial adverse change in the significance of an historical resource. (Criterion A) (*Less than Significant*)

The Project Modifications would not alter the Approved Project's onshore site plan or overall building envelopes including the proposed footprint or setbacks approved under the 2009 EIR. Although Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV, no change is proposed to the number or height of the Approved Project towers. Consequently, the historic resources impacts of the Project Modifications on the Ninth Avenue Terminal building, supporting wharf structure, or any other projects on the Project site are not reevaluated herein.

The 2009 EIR found the Approved Project would impair the expansive setting that surrounds the Ninth Avenue Terminal Bulkhead Building by developing incompatible or incongruous new construction within 100 feet of the resource. Although the Ninth Avenue Terminal Bulkhead Building was not designated as an Oakland City Landmark at the time, 2009 Mitigation Measure E.3c requires the City to pursue landmark status as well as delineate a S-7 Preservation Combining Zone. As described above under the existing setting, implementation of 2009 Mitigation Measures E.3c is in process. With implementation of 2009 Mitigation Measure E.3c, the Approved Project's impact on the resource's historic setting is identified as significant and unavoidable.

The Project Modifications' marina expansion component includes a new marina and boat slips within 100 feet of the Ninth Avenue Terminal Bulkhead Building. However, the proposed maritime use is in keeping with the context of shoreline development and would not substantially block views of the expansive setting. While the expanded marina would alter views of the water from Shoreline Park, the land use is considered compatible with the Terminal Building in both function and design. Furthermore, the addition of the marina expansion component into the Ninth Avenue Terminal Bulkhead Building surroundings is considered reversible and, if removed, would not impair the integrity of the historic resource. For these reasons, the impact of the Project

Modifications would be less-than-significant and would not contribute to the Approved Project's significant and unavoidable impact.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusions regarding impacts of the Project Modifications on the Ninth Avenue Terminal historical resource and associated wharf structure and Bulkhead Building are the same as identified in the 2009 EIR under Impacts E.3, E.4., E.5, and E.8 (*less than significant with mitigation*). The 2009 Mitigation Measures E.3a through E.3c and E.8, mostly implemented at the time of this SEIR analysis, still apply and the conclusion remains significant and unavoidable. The conclusions regarding impacts on other historical resource relating to all remaining buildings on the Project site and the Fifth Avenue Point neighborhood remains less than significant as identified in the 2009 EIR (Impacts E.6 and E.7). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, "changed circumstances" or "new information," pursuant to CEQA Guidelines Section 15162.

Archaeological Resources, Paleontological Resources and Human Remains

Impact CUL-2: The Project Modifications would not cause a substantial adverse change in the significance of an archaeological resource; directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or disturb any human remains, including those interred outside of forma cemeteries. (Criteria B, C, and D) (*Less than Significant*)

Although the Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would occur within the same overall building envelopes as the Approved Project. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project and this SEIR assumes that there would be no substantial increase in duration of construction-related activity with approval of the Project Modifications. The Project Modifications would result in an approximate 10 percent increase in labor force and associated worker trips to and from the site, as well as an approximately 10 percent increase in delivery trips to develop the additional 600 residential units on Phases III and IV. The marina expansion component (Phase VI) would result in additional construction-related delivery trips and extended construction timeframe due to limited in-water construction. Therefore, this SEIR assumes that there would be no change in onshore demolition or ground disturbing activities compared with what was approved in the 2009 EIR. Consequently, construction-related cultural resources impacts of the Project Modifications are not reevaluated herein.

The additional in-water infrastructure would be developed on approximately 10 acres of water surface area in the south end of Clinton Basin (on east and west sides). It would extend around Clinton Basin, along Shoreline Park waterfront, and into the Brooklyn Basin shipping channel (see Figure III-5). Submerged shipwrecks around Coast Guard Island have been present since the island's creation in 1913. None of the wrecks around Coast Guard Island have been evaluated as protected archeological resources, but all are potentially eligible for listing in the California Register. However, all of the potentially eligible wrecks are located on the south side of the maintained Brooklyn Basin shipping channel. Recent data also plots a cluster of wrecks as navigational hazards around the north side of Clinton Basin. However, these wrecks are all relatively recent, can be identified as modern sailboats, and would not be considered historical resources. Therefore, the expanded marina component of the Project Modifications would not result in a potential adverse change in the significance of an archaeological resource and the impact would be less-than-significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusions regarding the potential impact to archaeological and paleontological resources and human remains is the same as identified in the 2009 EIR (Impacts E.1 and E.2) and remains less than significant with implementation of 2009 Mitigation Measures E.1a, E.1b, and E.2. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, "changed circumstances" or "new information," pursuant to CEQA Guidelines Section 15162.

Tribal Cultural Resources

Impact CUL-3: The Project Modifications would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074. (Criterion E) (*Less than Significant*)

The Project Modifications would be developed on the same Project site as the Approved Project, though expanded by approximately 10 acres of water surface to accommodate the expanded marina. There are no previously recorded archaeological resources that could be considered tribal cultural resources in the Project site including the marina expansion. Further, the Project site is primarily comprised of purposeful fill which is not conducive to contain previously unrecorded archaeological resource that could be considered tribal cultural resources. Consequently, there is a very low potential for tribal cultural resources to be in the Project site.

PRC 21080.3.1(b) requires that a tribe that is traditionally and culturally affiliated to the geographic area where a project is located must have requested that the lead agency in question provide, in writing, notification to the tribe of projects in the tribe's area of traditional and cultural affiliation. To date, no tribes have contacted the City of Oakland to request consultation for projects in their jurisdiction.

Based on a review of site distribution and the environmental context, the Project site has a low potential to uncover previously undiscovered archaeological resources that could be considered tribal cultural resources. While unlikely, the inadvertent discovery of tribal cultural resources would result in a potentially significant impact. However, implementation of the City of Oakland's SCA CUL-1: Archaeological and Paleontological Resources – Discovery During Construction, SCA CUL-2: Archaeologically Sensitive Areas – Pre-Construction and SCA CUL-3: Human Remains – Discovery During Construction, would reduce impacts to archaeological resources that could be considered tribal cultural resources by requiring that work halt in the vicinity of a find until it is evaluated by a Secretary of the Interior-qualified archaeologist. With implementation of the City of Oakland's SCAs, the impact of the Project Modifications would be less than significant and no mitigation is required.

Mitigation: None required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The Project Modifications would result in a new, *less-than-significant* impact not identified for the Approved Project in the 2009 EIR.

Cumulative Impacts

Cumulative Context

The context for cumulative effects on cultural and paleontological resources encompasses and is limited to the Project site and the immediately adjacent area where the Project Modifications could cause disturbance to historical resources, unique archaeological resources, paleontological resources, and/or human remains as well as tribal cultural resources.

Impact

Impact CUL-4: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project site, would not result in significant cumulative impacts with respect to historical resources, archaeological resources, human remains, and tribal cultural resources. (*Less than Significant*)

As described above, the Project Modifications would not have an impact on historical resources and thus would not contribute to any cumulative impact. Similar to the Approved Project, cumulative projects in the vicinity could have a significant impact on previously undiscovered archaeological resources, including human remains interred outside of formal cemeteries and tribal cultural resources, as well as paleontological resources, during ground-disturbing activities. The potential impacts of the Project Modifications when considered together with similar impacts from other probable future projects in the vicinity could result in a significant cumulative impact on buried archaeological resources or human remains and paleontological resources. However, as stated above, implementation of the City of Oakland's SCA CUL-1, CUL-2, and CUL-3 would reduce impacts to archaeological resources that could be considered tribal cultural resources by requiring that work halt in the vicinity of a find until it is evaluated by a Secretary of the Interior-

qualified archaeologist, and in the case of human remains the County Coroner. In addition, cumulative projects undergoing CEQA review would have similar types of inadvertent discovery measures. Therefore, the Project Modifications' contribution to cumulative impacts would not be considerable, and the impact would be less than significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusions regarding the potential cumulative impact to cultural resources and tribal cultural resources and human remains is less severe than that identified in the 2009 EIR (Impact E.8, *Significant and Unavoidable*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, "changed circumstances" or "new information," pursuant to CEQA Guidelines Section 15162.

IV.E.4 References

City of Oakland, 2016. *CEQA Thresholds of Significance Guidelines*. October 17, 2016.

IV.F Geology and Soils

This section presents an analysis of potential impacts on geology and soils that would result from the Project Modifications described in Chapter III, *Project Description*. The affected environment, regulatory setting, and analysis from the 2009 EIR are relied on to the extent relevant in this Supplemental EIR (SEIR) and are discussed to the extent that they differ from those described in the 2009 EIR. This section analyzes the direct, indirect, and cumulative effects of the Project Modifications and compares them to the conclusions of the 2009 EIR; provides modifications (additions, deletions, updates, or other revisions), as needed, to the approved mitigation measures provided in the adopted Final EIR MMRP; and identifies any residual effects that may remain following the implementation of such measures.

IV.F.1 Environmental Setting

Since preparation of the 2009 EIR, there has been substantial and on-going construction of the Approved Project. However, with the exception of the removal of existing structures on the Project site, since preparation of the 2009 EIR, there has been no change in the regional- or site-specific geology and soil environmental setting relevant to the SEIR analysis of the Project Modifications.

IV.F.2 Regulatory Setting

Applicable building code requirements and regulations regarding geotechnical and seismic safety are continuously updating and improving. However, required compliance with these codes, as described in the 2009 EIR, is unchanged. None of the building code updates and enhancements since preparation of the 2009 EIR represent a meaningful change to the regulatory setting with respect to the analysis of geology and soils resources.

Local Plans, Ordinances and Policies

There have been no changes made to the local plans, ordinances and policies relevant to geology and soils resources since preparation of the 2009 EIR.

Oakland Standard Conditions of Approval (SCAs)

The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) in 2008, and they have since been amended and revised several times.¹ Like other regulations, the SCAs apply to projects in the City regardless of their CEQA impacts. The SCAs are not mitigation measures and therefore are not listed as mitigation measures. If the Project Modifications are approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project Modifications. With implementation of the SCAs, some

¹ A revised set of SCAs was recently published by the City of Oakland in December, 2020.

of the mitigation measures from the 2009 EIR are no longer needed, and this SEIR notes when that occurs.² There are no SCAs relevant to geology and soils.

IV.F.3 Impacts and Mitigation Measures

Significance Criteria

The City of Oakland has established thresholds of significance for CEQA impacts which incorporate those in Appendix G of the CEQA Guidelines (City of Oakland, 2016). Based on these thresholds, the Project Modifications would have a significant impact on the environment if it would:

- A. Expose people or structures to substantial 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 or Seismic Hazards Map issued by the State Geologist for the area or based on other substantial evidence of a known fault [**NOTE:** Refer to California Geological Survey 42 and 117 and Public Resources Code section 2690 et. seq.];
 - ii. Strong seismic ground shaking;
 - iii. Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse; or
 - iv. Landslides;
- B. Result in substantial soil erosion or loss of topsoil, creating substantial risks to life, property, or creeks/waterways;
- C. Be located on expansive soil, as defined in section 1802.3.2 of the California Building Code (2007, as it may be revised), create substantial risks to life and property;
- D. Be located above a well, pit, swamp, mound, tank vault, or unmarked sewer line, creating substantial risks to life or property;
- E. Be located above landfills for which there is no approved closure and post-closure plan, or unknown fill soils, creating substantial risks to life or property; or
- F. 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.

Methodology

Consistent with CEQA guidance, the SEIR is required to evaluate only the changes in the project, circumstances, or new information that could give rise to new significant environmental impacts or substantially more severe environmental impacts than were analyzed in the 2009 EIR. As such, in accordance with CEQA Guidelines Section 15163, this SEIR contains information necessary to disclose environmental impacts from the Project Modifications that were not analyzed in the 2009

² Where SCAs replace mitigation measures for the Project Modifications, such replacement does not indicate that the Project Modifications would have new or substantially more severe environmental impacts than the Approved Project.

EIR, or would be substantially more severe than anticipated by the 2009 EIR. This SEIR evaluates the Project Modifications using the City's current methodology, significance criteria, and thresholds. The analysis relies on the environmental baseline, which is the physical circumstances existing at the time the NOP was published in September 2018, and also compares the Project Modification to the Approved Project to determine if the modifications create any new or substantially more severe impacts on the environment. This SEIR discusses new City requirements and analysis methods established since preparation of the 2009 EIR, such as the incorporation of the City's SCAs, which would be required conditions of approval for the Project Modifications.

Changes that have occurred to the regulatory setting since preparation of the 2009 EIR are described above. The City's CEQA Thresholds of Significance for geology and soils have been rearranged in order, but have not changed substantively since the preparation of the 2009 EIR. Therefore, the impact discussions and analyses below focus on the activities associated with the Project Modifications and the potential for geology and soil impacts associated with those activities.

Impacts

Seismic Related Stability and Damage

Impact GEO-1: The Project Modifications would not expose people or structures to risk of loss, injury, or death related to settlement or seismic ground shaking, liquefaction, or earthquake-induced settlement due to a major earthquake within the Project area. (Criterion A) (*Less than Significant*)

Although the Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV equal to the decreased building mass in Phase II, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would occur within the same overall building envelopes as the Approved Project. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project and this SEIR assumes that there would be no substantial increase in duration of construction-related activity with approval of the Project Modifications. The Project Modifications would result in an approximate 10 percent increase in labor force and associated worker trips to and from the site, as well as an approximately 10 percent increase in delivery trips to develop the additional 600 residential units on Phases III and IV. The marina expansion component (Phase VI) would result in additional construction-related delivery trips and extended construction timeframe due to limited in-water construction. Phase VI is anticipated to be constructed over five seasons (rather than one season) with approximately 20 construction materials delivery trips per season.

No change to the Project site conditions relevant to seismic stability has occurred since preparation of the 2009 EIR. The Modified Project would be required to adhere to the 2009 Mitigation Measures requiring standard acceptable geotechnical practices including adherence to the Building Code in effect when building permits are submitted.

Dredging impacts will be significantly reduced from the 20,000 cubic yards estimated for removal in the 2009 EIR. The marina expansion component of the Project Modifications would shift marina construction away from the north side of Clinton Basin, which contains a lot of sediment, much of which is contaminated, and thereby reduce the need for dredging contaminated sediment. Instead the Project Modifications would redevelop the southern portion of Clinton Basin, which does not require dredging initially, although over time maintenance dredging will be necessary, and expand the marina to an area where less dredging is required than analyzed in the 2009 EIR. The need for maintenance dredging is not a change from the 2009 EIR. As such, potential impacts of the Project Modifications related to settlement or subsidence from the use of dredged material as fill would be reduced compared with the less-than-significant impacts identified in the 2009 EIR. The expanded marina would consist of a floating dock system which would not present a new or increased risk of loss, injury, or death related to seismic shaking, landslide, or settlement. Consequently, construction-related geology and soils impacts of the Project Modifications are not reevaluated herein.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: Potential exposure of people and property to risks associated with settlement or seismic ground shaking, liquefaction, or earthquake-induced settlement due to a major earthquake within the Project area were analyzed in the 2009 EIR under Impacts F.1, F.2, and F.3. The potential impacts were determined to be *less than significant with mitigation*. Implementation of 2009 Mitigation Measures F.1, F.2, and F.3 under these impacts would, in part, ensure compliance with current Building Code requirements. The Approved Project's potential impacts related to settlement and subsidence from the use of dredged material as fill was also evaluated in the 2009 EIR (Impact F.4) and determined to be *less than significant with mitigation* (2009 Mitigation Measure F.4). The conclusion regarding the potential for the Project Modifications to result in impacts related to seismic stability and damage is substantially the same as those identified in the 2009 EIR. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, "changed circumstances," or "new information" pursuant to CEQA Guidelines Section 15162.

Impact GEO-2: The Project Modifications would not result soil erosion or loss of topsoil that would create a risk to life, property or waterways. (Criterion B) (*Less than Significant*)

Although the Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV equal to the decrease in mass in Phase II, no change is proposed to the number or height of the Approved Project towers. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project. The Project Modifications would result in an approximate 10 percent increase in labor force and associated worker trips to and from the site, as well as an approximately 10 percent increase in delivery trips to develop the additional 600 residential units

on Phases III and IV. The marina expansion component (Phase VI) would result in additional construction-related delivery trips and extended construction timeframe due to limited in-water construction. Phase VI is anticipated to be constructed over five seasons (rather than one season) with approximately 20 construction materials delivery trips per season.

The Project Modifications would not alter the Approved Project's onshore site plan or overall building envelopes including the proposed footprint or setbacks approved under the 2009 EIR. The Project Modifications would have to comply with state and federal laws that protect against soil erosion and soil loss, including following all requirements in the Stormwater Pollution Prevention Plan during construction. Compliance with these requirements, together with Alameda County and the City of Oakland's stormwater management requirements would reduce erosion of disturbed soils during construction activities to less than significant levels.

The Project Modifications would not alter the planned improvements to the shoreline such as removal of existing debris, re-grading of the banks, addition of shoreline protection measures (e.g. riprap, geotextiles, etc.), or construction of retaining walls. These proposed bank stabilization improvements would reduce the potential for wave action erosion to less than significant levels. Post construction, the Project Modifications would not alter the planned landscaping that would prevent soil erosion, as well as low impact development (LID) features that would help prevent sediment from entering waterways. Consequently, potential impacts on soil erosion and soil loss would be the same as evaluated in the 2009 EIR.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: Erosion and potential loss of topsoil was analyzed in the 2009 EIR under Impact F.5, and the impact was determined to be *less than significant with mitigation* (2009 Mitigation Measure F.5).

The conclusion regarding the potential for the Project Modifications to result in impacts to erosion and potential loss of topsoil is substantially the same as that identified in the 2009 EIR. The Project Modifications would not alter on-shore construction and would not contribute to this impact and no new mitigation is necessary for the Project Modifications. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, "changed circumstances," or "new information" pursuant to CEQA Guidelines Section 15162.

Impact GEO-3: The Project Modifications would not create substantial risks to life or property as a result of being located on expansive soils; above a well, pit, swamp, mound, tank vault, or unmarked sewer line; above landfills or unknown fill soils; or on soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems. (Criteria C, D, E, and F) (*Less than Significant*)

As discussed in the 2009 EIR, the Project site has no identified areas of expansive soils and the potential for encountering expansive soils is low due to the presence of coarse-grained material in the artificial fill that exists. There is no change in this condition. The Project site also is not within

an Alquist Priolo Fault Rupture Hazard Zone, and no mapped active faults are known to pass through the immediate project region. The Project site investigation did not identify any wells (excluding groundwater monitoring wells), pits, swamps, tank vaults, or unmarked sewer lines and the site is not above a landfill. The Project Modifications, like the Approved Project, does not propose septic tanks or alternative wastewater disposal systems.

Although Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV equal to the decrease in building mass in Phase II, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would occur on the same onshore Project site within the same overall building envelope as the Approved Project. Further, there has been no change to the Project site's environmental setting related to geology and soils that would require new analysis of the Approved Project.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: Geology and soils impacts related to the environmental conditions of the Project site, including expansive soil; landslide conditions; and the presence of active faults, landfill, unknown fill soils, well, pit, swamp, mound, tank vault, or unmarked sewer line, were analyzed in the 2009 EIR under Impacts F.6 and F.7 and the impact was determined to be *less than significant*. Risks related to the Project Modifications being located above a well, pit, swamp, mound, tank vault, unmarked sewer line, and/or landfill; or having soil incapable of supporting a wastewater disposal system are the same as identified in the 2009 EIR, and remain *less than significant*. No new significant environmental impacts or substantial increase in the severity of previously identified significant impacts would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information” pursuant to CEQA Guidelines Section 15162.

Cumulative Impacts

Cumulative Context

Although the entire Bay Area is within a seismically active region with a wide range of geologic and soil conditions, these conditions can vary widely within a short distance, making the cumulative context for potential impacts resulting from exposing people and structures to related risks one that is more localized or even site-specific. Therefore, the cumulative context includes the existing Fifth Avenue Point buildings the remaining portion of the Ninth Avenue Terminal, the Embarcadero Roadway, and any relevant and nearby projects from City's current List of Major Development Projects (included as Appendix B).

Impacts

Impact GEO-4: The Project Modifications, when combined with closely related past, present, or reasonably foreseeable development in the vicinity, would not result in significant cumulative impacts with respect to geology, soils, or seismicity. (*Less than Significant*)

Although Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV equal to the decrease in building mass in Phase II, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would not include changes to the Approved Project's site plan or building envelopes, heights, or setbacks. Further, no projects adjacent to the Project site have been approved since the 2009 EIR that would have significant geologic, soil, or seismicity impacts to which the Project Modifications could contribute. As described above, the Project Modifications would result in the same or reduced (related to dredging) impacts identified in the 2009 EIR and these impacts, considered with impacts from past, present, and future impacts would not create a significant cumulative impact. To the extent a significant cumulative impact exists, the Project Modifications would not make a cumulatively considerable contribution to any significant cumulative impact related to geology, soils, and seismicity.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential for a cumulative impact related to geology, soils and seismicity is substantially the same as identified in the 2009 EIR under Impact F.8 (*less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant impacts would result from changes to the Project due to Project Modifications, "changed circumstances," or "new information" pursuant to CEQA Guidelines Section 15162.

IV.F.4 References

California Building Standards Commission, 2018. *California Building Standards Code, 2016 Triennial Edition of Title 24*. Available: <https://www.dgs.ca.gov/BSC/Codes>. Accessed October 14, 2019.

City of Oakland, 2016. *CEQA Thresholds of Significance Guidelines*. October 17, 2016.

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IV.G Noise

This section presents an analysis of potential impacts on noise and vibration that would result from the Project Modifications described in Chapter III, *Project Description*. The affected environment, regulatory setting, and analysis from the 2009 EIR are relied on to the extent relevant in this Supplemental EIR (SEIR), and are discussed to the extent that they differ from those described in the 2009 EIR. This section analyzes the direct, indirect, and cumulative noise effects of the Project Modifications and compares them to the conclusions of the 2009 EIR; provides modifications (additions, deletions, updates, or other revisions), as needed, to the approved mitigation measures provided in the adopted Final EIR MMRP; and identifies any residual effects that may remain following the implementation of such measures.

IV.G.1 Environmental Setting

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise is defined as unwanted sound. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). Sound pressure level is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude. Given that the typical human ear is not equally sensitive to all frequencies of the audible sound spectrum, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes low and extremely high frequencies, referred to as A-weighting, and is expressed in units of A-weighted decibels (dBA).¹

As described in Chapter III, *Project Description*, since preparation of the 2009 EIR, there has been substantial and on-going construction of the Approved Project. At the time of the NOP (September 2018), Phase I on- and off-site improvements were constructed. In addition, Phase I park and open space improvements and development on Parcel B were under construction. Final Development Permits (FDPs) for Affordable Housing on Parcels F and A, FDPs for Parcels C and G, and an FDP for Phase II through IV park and open space improvements had been approved. These changes to the Project site are considered a part of the existing conditions and environmental baseline for this SEIR analysis. Since publication of the NOP, additional FDPs for Phase I and II parcels have been submitted and development proposals for all sites within those phases are either under review, approved, under construction, or operational (see Chapter III, *Project Description*). The baseline traffic counts collected for the transportation analysis and used to calculate the baseline traffic noise levels reflect interim growth since approval of the project. Additionally, updated noise monitoring was conducted on July 23 of 2019 in the project area to quantify the current noise environment. These monitoring data are presented in **Table IV.G-1**. While pile driving was occurring on Parcel C of the Project site on the day of monitoring, monitoring was conducted during breaks in pile driving activity. Values in parentheses are the noise levels monitored in 2002 and 2005 as reported in the 2009 EIR.

¹ All noise levels reported herein reflect A-weighted decibels unless otherwise stated.

**TABLE IV.G-1
 MONITORED NOISE ENVIRONMENTS WITHIN THE PROJECT AREA**

Short Term (ST) Noise Monitoring Location	Time	Noise Levels in dBA			
		Leq	L33	L16	Sources
1. 6 th Avenue and Embarcadero (110 feet from center of Embarcadero, 15 feet from center of 6 th) (Location 5 in 2005 Measurements)	Daytime 1:41 - 1:47 p.m.	64 (63)	62	65	I-880 traffic, Embarcadero traffic
2. 9 th Avenue and Embarcadero (65 feet from center of Embarcadero, 15 feet from center of 9 th) (Location 1 in 2005 Measurements)	Daytime 1:53 - 2:00 p.m.	65 (69)	65	68	I-880 traffic, Embarcadero traffic
3. Estuary Park Spot – West Location (125' southeast of Embarcadero center line, 100' east of neighboring residential building, 5' elevation) (Location 20 in 2002 Measurements)	Daytime 1:06 – 1:21 p.m.	59 (70)	53	56	Embarcadero traffic; Amtrak Pass by
4. Embarcadero Spot – West of 5th Avenue (80' south of Embarcadero center line, 450' west of 5th Avenue center line, 5' elevation) (Location 22 in 2002 Measurements)	Daytime 1:27 – 1:36 p.m.	64 (71)	64	66	I-880 traffic, Embarcadero traffic, Distant loader operation

NOTE: Values in parentheses are those reported in the 2009 EIR. L₃₃ represents the noise level exceeded 20 minutes (33 percent) in a given hour and is a metric relevant to standards of the City's noise ordinance discussed later in this section. L₁₆ represents the noise level exceeded 10 minutes (163 percent) in a given hour.

SOURCE: Environmental Science Associates (ESA), 2019.

Sensitive Receptors

In addition to the sensitive receptors identified in the 2009 EIR, one residential building of the Approved Project is almost complete and ready for occupancy on 10th Avenue (Parcel B).

IV.G.2 Regulatory Setting

Federal and State

Since preparation of the 2009 EIR, there have been no changes to the federal and state regulatory environment with respect to noise relevant to the this SEIR analysis.

Local Plans, Ordinances and Policies

Since preparation of the 2009 EIR, there has been no change in the City General Plan or municipal code with respect to noise relevant to the this SEIR analysis.

Oakland Standard Conditions of Approval (SCAs)

The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) in 2008, and they have since been amended and revised several times.² Like

² A revised set of SCAs was recently published by the City of Oakland in December, 2020.

other regulations, the SCAs apply to projects in the City regardless of their CEQA impacts. The SCAs are not mitigation measures and therefore are not listed as mitigation measures. If the Project Modifications are approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project Modifications. With implementation of the SCAs, some of the mitigation measures from the 2009 EIR are no longer needed, and this SEIR notes when that occurs.³ Below are the SCAs relevant to noise:

- **SCA NOI-1 (SCA 67): Exposure to Community Noise.** The project applicant shall submit a Noise Reduction Plan prepared by a qualified acoustical engineer for City review and approval that contains noise reduction measures (e.g., sound-rated window, wall, and door assemblies) to achieve an acceptable interior noise level in accordance with the land use compatibility guidelines of the Noise Element of the Oakland General Plan. The applicant shall implement the approved Plan during construction. To the maximum extent practicable, interior noise levels shall not exceed the following:
 - a. 45 dBA: Residential activities, civic activities, hotels
 - b. 50 dBA: Administrative offices; group assembly activities
 - c. 55 dBA: Commercial activities
 - d. 65 dBA: Industrial activities.

IV.G.3 Impacts and Mitigation Measures

Significance Criteria

The City of Oakland has established thresholds of significance for CEQA impacts which incorporate those in Appendix G of the CEQA Guidelines (City of Oakland, 2016). These thresholds of significance have not changed since the 2009 EIR. Based on these thresholds, The Project Modifications would have a significant impact on the environment if it would:

- A. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding construction noise (see Table IV.G-2 of the 2009 EIR), except if an acoustical analysis is performed that identifies recommended measures to reduce potential impacts.⁴
- B. Generate noise in violation of the City of Oakland nuisance standards (Oakland Municipal Code section 8.18.020) regarding persistent construction-related noise;
- C. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise (see Table 4.11-8);

³ Where SCAs replace mitigation measures for the Project Modifications, such replacement does not indicate that the Project Modifications would have new or substantially more severe environmental impacts than the Approved Project.

⁴ The acoustical analysis must identify, at a minimum, (a) the types of construction equipment expected to be used and the noise levels typically associated with the construction equipment and (b) the surrounding land uses including any sensitive land uses (e.g., schools and childcare facilities, health care and nursing homes, public open space). If sensitive land uses are present, the acoustical analysis must recommend measures to reduce potential impacts.

- D. Generate noise resulting in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or, if under a cumulative scenario where the cumulative increase results in a 5 dBA permanent increase in ambient noise levels in the project vicinity without the project (i.e., the cumulative condition including the project compared to the existing conditions) and a 3 dBA permanent increase is attributable to the project (i.e., the cumulative condition including the project compared to the cumulative baseline condition without the project);
- E. Expose persons to interior L_{dn} or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities (and may be extended by local legislative action to include single-family dwellings) per California Noise Insulation Standards (CCR Part 2, Title 24);
- F. Expose the project to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan (see Table 4.11-7) after incorporation of all applicable Standard Conditions of Approval;
- G. Expose persons to or generate noise levels in excess of applicable standards established by a regulatory agency (e.g., occupational noise standards of the Occupational Safety and Health Administration [OSHA]);
- H. During either project construction or project operation expose persons to or generate groundborne vibration that exceeds the criteria established by the Federal Transit Administration (FTA) (see Table 4.11-6);
- I. Be located within an airport land use plan and would expose people residing or working in the project area to excessive noise levels; or
- J. Be located within the vicinity of a private airstrip, and would expose people residing or working in the project area to excessive noise levels.

Methodology

Consistent with CEQA guidance, the SEIR is required to evaluate only the changes in the project, circumstances, or new information that could give rise to new significant environmental impacts or substantially more severe environmental impacts than were analyzed in the 2009 EIR. As such, in accordance with CEQA Guidelines Section 15163, this SEIR contains information necessary to disclose environmental impacts from the Project Modifications that were not analyzed in the 2009 or would be substantially more severe than anticipated by the 2009 EIR. This SEIR evaluates the Project Modifications using the City's current methodology, significance criteria, and thresholds. The analysis relies on the environmental baseline, which is the physical circumstances existing at the time the NOP was published in September 2018, and also compares the Project Modification to the Approved Project to determine if the modifications create any new or substantially more severe impacts on the environment. This SEIR discusses new City requirements and analysis methods established since preparation of the 2009 EIR, such as the incorporation of the City's SCAs, which would be required conditions of approval for the Project Modifications.

Changes that have occurred to the environmental and regulatory setting since preparation of the 2009 EIR are described above. The City's noise ordinance and General Plan Noise Element remain the same as in the 2009 EIR and the CEQA Thresholds of Significance for noise have not

changed since the preparation of the 2009 EIR. Therefore, the impact discussions and analyses below focus on the activities associated with the Project Modifications and the potential for noise impacts associated with those activities and how they compare to the conclusions about noise in the 2009 EIR.

Operational noise issues evaluated in this section include noise generated by automobile and truck traffic that would occur during typical daily conditions with the Project Modifications, and noise generated by an increase in recreational vessel activity. In addition, the marina expansion component of the Project Modifications would accommodate an existing water taxi/shuttle service currently operating on San Francisco Bay. Therefore, operational noise issues evaluated in this section include noise generated by the existing water taxi service should it use the expanded marina.

Traffic noise modeling to address the effects of the traffic generated by the Project Modifications on roadway noise (Project and cumulative, under Impact G.1 and Impact G.3, respectively) was completed using the Federal Highway Administration Traffic Noise Model. Traffic noise level significance is determined by comparing the increase in noise levels (traffic contribution only) to increments recognized by the California Department of Transportation (Caltrans) as representing a readily perceptible increase in noise levels of 5 dBA or more.

Noise generation of the water taxi service is assessed based on noise data collected for existing ferry operations on San Francisco Bay and a comparison to operational noise standards established by Oakland Planning Code section 17.120.050.

Noise Impacts Determined to Require No Further Analysis in this SEIR

The Project Modifications would not result in significant impacts pursuant to Criterion G, noise levels in excess of applicable standards established by a regulatory agency. The Project Modifications do not propose development of heavy industrial land uses that might require operation of heavy duty equipment or other substantial noise sources for which worker hearing protection standards would apply. Consequently, exposure persons to, or generation of, noise levels in excess of applicable standards established by a regulatory agency (e.g., occupational noise standards of the OSHA) are not reevaluated herein (Criterion G above).

The Project Modifications all occur within the same footprint as the Approved Project and are not located within two miles of a public airport or private airstrip. The Project site is not located within an airport influence area of either Oakland International Airport or San Francisco International Airport (ACCDA, 2012 and SFIA, 2015) or in the vicinity of a private airstrip; therefore, the Project Modifications would not result in an impact related to exposure to excessive aircraft noise. Consequently, exposure of new sensitive receptors to excessive aircraft noise are not reevaluated herein (Criteria I and J, above).

Impacts

Construction Noise

Impact NOI-1: The Project Modifications would not generate construction-related noise or vibration in violation of the City of Oakland Noise Ordinance on nuisance standards or that exceeds the criteria established by the Federal Transit Administration (FTA). (Criteria A, B, and H) (*Less than Significant*)

Although the Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would occur within the same overall building envelopes as the Approved Project. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project and this SEIR assumes that there would be no substantial increase in duration of construction-related activity with approval of the Project Modifications. The Project Modifications would result in an approximate 10 percent increase in labor force and associated worker trips to and from the site, as well as an approximately 10 percent increase in delivery trips to develop the additional 600 residential units on Phases III and IV. The marina expansion component (Phase VI) would result in additional construction-related delivery trips and extended construction timeframe due to limited in-water construction. Phase VI is anticipated to be constructed over five season with approximately 20 construction materials delivery trips per season. While construction for the marina expansion would occur in new areas, geographically, these areas would be further away from receptors than construction areas of the Approved Project and would therefore have lesser construction noise impacts. Consequently, construction-related noise or vibration impacts of the Project Modifications are not reevaluated herein.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The 2009 EIR identified significant and unavoidable impacts related to construction noise (Impact G.1) with implementation of 2009 Mitigation Measure G.1a through G.1d (*significant and unavoidable*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes in the Project due to the Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Operational Noise

Impact NOI-2: The Project Modifications would result in generation of additional vehicle traffic that would not result in a 5-dBA permanent increase in existing ambient noise levels in the Project vicinity. (Criterion C) (*Less than Significant*)

Although the Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would not include changes to the overall building envelopes or land uses of the Approved Project. No changes are proposed to the footprint, heights, or setbacks approved under the 2009 EIR. Therefore, noise generated by truck loading and unloading activities as well as HVAC systems on project buildings would be the same for the Project Modifications and is not reevaluated herein.

The Project Modifications would result in new vehicle trips along roadways used to access the Project site. Traffic noise level significance is determined by comparing the increase in noise levels (traffic contribution only) to increments recognized by the City of Oakland (City of Oakland, 2016) and Caltrans (Caltrans, 2013) as representing a readily perceptible increase in noise levels.

The vehicular traffic associated with the Project Modifications would increase noise levels along existing roadways. Increases in noise from traffic on existing roadways were assessed by modeling existing and future roadway noise levels and comparing the resulting increase to standards adopted by the City of Oakland as thresholds of significance.

Noise level projections were made using traffic data from Fehr & Peers (2019) and the Federal Highway Administration Noise Prediction Model for those road segments that would experience the greatest increase in traffic volume and/or that would pass through residential areas. The model is based on reference noise factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

The results of the modeling effort are shown in **Table IV.G-2** for the Existing and Existing Plus Project Modifications scenarios. The traffic analysis indicates that the Project Modifications would generate approximately 2,830 total daily vehicle trips. This traffic would be distributed over the local street network and would affect roadside noise levels. For the modeling effort, p.m. peak hour traffic volumes during weekdays were used. Modeled existing noise levels shown in Table IV.G-2 correspond to a distance of 7 or 15 meters (50 feet) from the centerline of applicable roadway segments.

As can be seen from Table IV.G-2, increases in modeled roadside noise levels from traffic for all segments would be less than 1 dBA with the addition of vehicle trips associated with the Project Modifications. Therefore, traffic generated by the Project Modifications would increase existing noise levels by less than 5 dBA and have a less-than-significant impact.

Mitigation: None Required.

**TABLE IV.G-2
 TRAFFIC NOISE LEVELS WITH WEEKDAY P.M. BUILDOUT
 OF PROJECT MODIFICATIONS**

Roadway Segment	Existing Noise Level	Existing plus Project Modifications	dBA Difference	Significant Increase?
Weekday p.m. Peak Hour Noise Levels (4 p.m. – 6 p.m.)				
1. 5th Street (between Madison and Oak Streets) ^a	69.0	69.0	0.0	No
2. Oak Street (between 5th Street and Embarcadero) ^a	65.1	65.3	0.2	No
3. Embarcadero (west of 5th Avenue) ^b	69.5	69.8	0.3	No
4. Embarcadero (between 5th Avenue and 6th Avenue) ^b	73.2	73.4	0.2	No
5. Embarcadero (between 6th Avenue and 10th Avenue) ^b	72.4	72.5	0.1	No
6. 5th Avenue (south of Embarcadero) ^a	71 ^c	71.4	0.4	No
7. East 8th Street (between Oak Street and 5th Avenue) ^a	70.1	70.2	0.1	No
8. 5th Avenue (between East 8th Street and Embarcadero) ^a	68.9	69.2	0.3	No

NOTES:

- ^a Road center to receptor distance is assumed to be 7.5 meters (approximately 25 feet) on these segments. Vehicle mix on these road segments is assumed to be 90 percent auto, 5 percent medium trucks, and 5 percent heavy trucks. The speed limit for these segments is assumed to be 25 miles per hour
- ^b Road center to receptor distance is assumed to be 15 meters (approximately 50 feet) on these segments. Vehicle mix on these road segments is assumed to be 90 percent auto, 5 percent medium trucks, and 5 percent heavy trucks. The speed limit for these segments is assumed to be 35 miles per hour.
- ^c The measured existing traffic noise levels on this roadway segment is based on long-term measurement data that account for all noise sources, not just traffic on the single roadway.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the impact of roadway traffic is the same as identified in the 2009 EIR (Impact G.2). The 2009 EIR also evaluated noise that would be generated by truck loading and unloading and HVAC systems (Impact G.2), which would require implementation of 2009 Mitigation Measure G.2. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Impact NOI-3: The Project Modifications would include a landing dock to accommodate an existing water taxi service and additional marina slips to accommodate recreational vessels that would not generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise. (Criterion D) (*Less than Significant*)

The Project Modifications would include a landing dock at the north end of the Shoreline Park waterfront to accommodate a small-scale water taxi service. The service that would use the proposed new landing dock would be of a limited-capacity. The water taxi service would initially access the dock during the early morning and late afternoon commute hours, one or two days per week. As demand increases and circumstances warrant, the water taxi service would potentially

increase dockside operations to run to up to six round trips per day five days per week also during the commute hours.

Water taxi/ferry arrival and idling operations would generate noise. Short-term (15-minute) noise measurements collected adjacent to Gate B of the existing WETA ferry terminal at the San Francisco Ferry Building are provided in **Table IV.G-3** as comparable ambient noise conditions that would result during ferry arrival and idling. Water taxis would have smaller engines and consequently generate lower noise levels than the ferry operations and therefore, the analysis below is conservative.

**TABLE IV.G-3
 NOISE FROM FERRY ARRIVAL AND IDLING**

Location	Time Period	Leq (dBA)	Noise Sources
Short-term Measurement: Promenade along SF ferry terminal with ferry approach, idle, and departure.	01/18/11 10:56 – 11:11 a.m.	15-minute Leq 66 dBA Lmax: 75 dBA	Ferry engine idle and cooling water discharge.

SOURCE: ESA, 2012

At the time of the NOP (2018), the closest noise-sensitive land use to the proposed water taxi landing was the Homewood Suites approximately 350 feet to the northeast. The nearest existing residential uses were on the 1000 block of 10th Avenue, approximately 1,300 feet away and across I-880. At Approved Project buildout, the closest noise-sensitive residential land uses would be on Parcels A and B (parcel B is currently occupied) which would be as close as 300 feet from the proposed water taxi landing.

As indicated in Table IV.G-3 ferry idling generates a steady-state noise level of 66 dBA, Leq at a distance of approximately 120 feet. This noise level would attenuate to approximately 58 dBA at the nearest noise-sensitive land use 300 feet away. Existing monitored daytime noise levels at this location was 65 dBA, primarily from traffic on I-880. Addition of intermittent noise from ferry operations would result in noise levels of 66 dBA or a 1 dBA increase when ferries are operating at the landing. This increase during daytime hours would not be noticeable at the Approved Project’s residential uses.

The applicable noise standard for the Approved Project’s residential uses would be a L₃₃ of 60 dBA during daytime hours and 45 dBA during nighttime hours. Therefore, the resultant 58 dBA noise level would be within the exposure limits of the Section 17.120.050 of the Oakland Planning Code during daytime hours. However, noise levels during nighttime hours (defined as 10 p.m. to 7 a.m.) could result in noise levels in excess of the 45 dBA nighttime standard. It is reasonable to assume that some water taxi operations could occur in the early morning hours (6 a.m. to 7 a.m.).

As mentioned above, existing noise levels at the Project site are affected by the presence of vehicle traffic on I-880. Section 17.120.050 (D) of the Planning Code stipulates that in the event the measured ambient noise level exceeds the applicable noise level standard in any category above, the stated applicable noise level shall be adjusted so as to equal the ambient noise level.

Figure IV.G-4 of the 2009 EIR indicates that noise levels are over 65 dBA between 4 a.m. and 7 a.m. Therefore, the project-specific noise level standard would be approximately 65 dBA. Operation of the water taxi service at the proposed landing dock would be less than significant because ferry noise, which would generate higher noise levels than water taxi operations, would be 58 dBA at the closest noise-sensitive receptor approximately 300 feet away and this level is below the adjusted nighttime standard.

With respect to increased noise from additional operations of recreational vessels using the expanded marina, as noted above, commercial ferries generate noise levels of approximately 66 dBA at 120 feet (ESA, 2012), or approximately 58 dBA at 300 feet, which would be below the applicable noise ordinance standard of 65 dBA at the nearest receptor. Intermittent operations of recreational vessels from the additional 158 slips resulting from the Project Modifications would generate lower noise levels than those associated with commercial ferries, as motorboats would generally navigate the estuary at low engine loads with small horsepower engines.

Consequently, operational noise of a water taxi service and recreational vessels at the proposed landing dock and additional marina slips would not result in the exposure of persons to or generation of noise levels in excess of established standards, nor would the Project Modifications result in a substantial permanent increase in ambient noise levels or otherwise be substantially affected by existing noise.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: Water taxi service was not a proposed element of the Approved Project. Therefore, the addition of the water taxi landing dock and additional marina slips from the Project Modifications could result in a new less-than-significant impact. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Impact NOI-4: The Project Modifications would not expose persons to noise greater than the applicable California Noise Insulation Standards, nor expose the project to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan, nor expose persons to vibration that exceeds the criteria established by the FTA. (Criteria E, F, and H) (*Less than Significant*)

The Project Modifications would add additional residential units in buildings previously approved for residential use in the 2009 EIR as well as the potential for live-aboard vessels in the additional Marina slips. Because new residents, which would be considered sensitive receptors, would be located in areas already assessed in the 2009 EIR for noise exposure, there would be no new or increased noise exposure imposed upon the future occupants of the Modified Project. Because future occupants could be exposed to noise levels classified from “normally unacceptable” to “clearly unacceptable” for residential uses, as discussed in Impact G.3 of the 2009 EIR, SCA

NOI-1 Exposure to Community Noise, would be implemented by the Project Modifications. Consequently, exposure of new sensitive receptors to excessive noise environments of the Project Modifications are not reevaluated herein.

With respect to exposure of new sensitive receptors to excessive vibration, the closest residential structure (Parcel M) to the existing Union Pacific/Amtrak railway would be approximately 125 feet from the track centerline. Using generalized ground surface vibration propagation curves for locomotive-powered passenger and freight trains published by FTA and adjusting for speed and building coupling results in a predicted vibration level of 63 VdB which is less than the 65 VdB FTA criteria for residential uses. Consequently, exposure of new sensitive receptors to excessive vibration environments is not a new significant environmental effect of the Project Modifications.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The 2009 EIR identified a less-than-significant impact with respect to indoor noise (Impact G.3 and 2009 Mitigation Measure G.3) and a significant and unavoidable impact with respect to outdoor noise (Impact G.4). The Project Modifications would not contribute to this less than significant impact and no mitigation is necessary for the Project Modifications. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from the changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Cumulative Impacts

Cumulative Context

The cumulative context of analysis for cumulative noise impacts encompasses sensitive receptors within approximately 1,000 feet of the Project site. Beyond 1,000 feet, the contributions of noise from other projects would be greatly attenuated through both distance and intervening structures and their contribution would be expected to be minimal. For roadway noise, this SEIR assumes that the Approved Project is completed under cumulative conditions in 2040, as well as planned and funded transit, bicycle and pedestrian, and intersection projects (see Section IV.B, *Transportation and Circulation*).

Impacts

Impact NOI-5: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects, would not cause a substantial permanent increase in ambient noise levels in the project vicinity. (*Less than Significant*)

Operational noise impacts of the Project Modifications would primarily result from increased traffic on the local roadway network. Cumulative (year 2040) plus Project traffic data were used to estimate the cumulative operational noise increases.

Cumulative traffic noise level significance is determined by a two-step process. First, a comparison is made of the increase in noise levels between cumulative conditions with the Project Modifications and existing baseline conditions to an incremental 5 dBA threshold established by the City of Oakland. If the roadside noise levels would exceed this incremental threshold, a cumulative noise impact would be identified.

The second step of the cumulative roadside noise analysis (if a cumulative noise impact is predicted) is to evaluate if the contribution of the Project Modifications to roadside noise levels is cumulatively considerable. This second step (if necessary) involves assessing whether the Project Modifications contribution to roadside noise levels (i.e., the difference between cumulative conditions and cumulative plus Project Modifications conditions) would exceed the 3 dBA incremental contribution threshold established by the City of Oakland.

The roadway segments analyzed and the results of the noise increases resulting from modeling are shown in **Table IV.G-4**. As shown in Table IV.G-4, none of the eight roadway segments analyzed under 2040 Cumulative plus Project Modifications condition would experience an increase in traffic noise levels over baseline conditions that would exceed 5 dBA and represent significant cumulative noise impact. Hence cumulative roadway traffic noise impacts would be less than significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The 2009 EIR determined that the Cumulative plus Approved Project traffic would result in a less-than-significant noise impact (Impact G.5). The conclusion regarding the potential impact of roadway traffic from the Project Modifications is the same as identified in the 2009 EIR. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

**TABLE IV.G-4
MODELED TRAFFIC NOISE LEVELS WITH WEEKDAY P.M. BUILDOUT OF MODIFIED PROJECT**

Roadway Segment	Existing	Year 2040 Cumulative	Year 2040 Cumulative with Project Modifications	dBA Difference Existing versus Year 2040 Cumulative	Significant Increase?	dBA Difference Year 2040 Cumulative versus Cumulative with Project Modifications	Cumulatively Considerable Contribution?
Weekday p.m. Peak Hour Noise Levels (4 p.m. – 6 p.m.)							
1. 5th Avenue (between Madison and Oak Streets) ^a	69.0	71.8	71.8	2.8	No	0.0	No
2. Oak Street (between 5th Avenue and Embarcadero) ^a	65.1	68.7	68.8	3.7	No	0.1	No
3. Embarcadero (west of 5th Avenue) ^b	69.5	72.8	73.0	3.3	No	0.2	No
4. Embarcadero (between 5th Avenue and 6th Avenue) ^b	73.2	76.0	76.1	2.9	No	0.1	No
5. Embarcadero (between 6th Avenue and 10th Avenue) ^b	72.4	75.3	75.3	2.9	No	0.0	No
6. 5th Avenue (south of Embarcadero) ^a	71 ^c	62.4	64.2	0.8	No	1.8	No
7. East 8th Street (between Oak Street and 5th Avenue) ^a	70.1	72.5	72.5	2.4	No	0.0	No
8. 5th Avenue (between East 8th Street and Embarcadero) ^a	68.9	71.7	71.8	2.9	No	0.1	No

NOTES:

^a Road center to receptor distance is assumed to be 7.5 meters (approximately 25 feet) on these segments. Vehicle mix on these road segments is assumed to be 90 percent auto, 5 percent medium trucks, and 5 percent heavy trucks. The speed limit for these segments is assumed to be 25 miles per hour

^b Road center to receptor distance is assumed to be 15 meters (approximately 50 feet) on these segments. Vehicle mix on these road segments is assumed to be 90 percent auto, 5 percent medium trucks, and 5 percent heavy trucks. The speed limit for these segments is assumed to be 35 miles per hour.

^c The measured existing traffic noise levels on this roadway segment is based on long-term measurement data that account for all noise sources, not just traffic on the single roadway.

IV.G.4 References

Alameda County Community Development Agency (ACCCA), 2012. *Oakland International Airport, Airport Land Use Compatibility Plan*. December 2012.

California Department of Transportation (Caltrans), 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

City of Oakland, 2016. *City of Oakland CEQA Thresholds of Significance Guidelines*, October 17, 2016.

Environmental Science Associates (ESA), 2012. *Golden Gate San Francisco Ferry Terminal, Vessel Boarding Rehabilitation Project, Initial Study/Mitigated Negative Declaration*. September 2012. Prepared for Golden Gate Bridge, Highway, and Transportation District Under contract to Moffatt & Nichol.

———, 2019. ESA Noise Monitoring conducted for Project Modifications.

San Francisco International Airport (SFIA), 2015. *2019 Noise Exposure Map*, August 13, 2015, https://media.flysfo.com/media/sfo/noise-abatement/sfo_p150_2019-nem-36x24-plot-signed_ada.pdf. Accessed March 18, 2019.

IV.H Hazards and Hazardous Materials

This section presents an analysis of potential impacts on hazards and hazardous materials that would result from the Project Modifications. The affected environment, regulatory setting, and analysis from the 2009 EIR are relied on to the extent relevant in this Supplemental (SEIR), and are discussed to the extent that they differ from those described in the 2009 EIR. This section analyzes the direct, indirect, and cumulative effects of the Project Modifications and compares them to the conclusions of the 2009 EIR; provides modifications (additions, deletions, updates, or other revisions), as needed, to the approved mitigation measures provided in the adopted Final EIR MMRP; and identifies any residual effects that may remain following the implementation of such measures.

IV.H.1 Environmental Setting

Since preparation of the 2009 EIR, there has been substantial and on-going construction of the Approved Project. The Project Applicant has pursued steps for site remediation, specifically, they have initiated and completed various elements of remediation required for the Phase I and Phase II development area. The Project Applicant has also removed existing onshore structures including a portion of the Ninth Avenue Terminal building for the development of Shoreline Park. As of the date of the NOP (September 2018), the Project site is no longer included in the list of Hazardous Waste and Substances sites in the Department of Toxic Substances Control (DTSC) EnviroStor database, one of the lists meeting the “Cortese List” requirements (CalEPA, 2019).

Per the requirements of the 2009 Mitigation Measures, (H.1a, H.1b, H.1c, H.1d, H.1e, H.2a, H.2b, H.2c, and H.2d) the Project Applicant has also initiated the preparation of Response Plans, and Implementation Plans addressing each portion of the Project site, and received DTSC approval on these plans (DTSC, 2019).

IV.H.2 Regulatory Setting

Federal and State

Since preparation of the 2009 EIR, there has been no change in the federal or state hazards/hazardous materials regulatory setting relevant to the SEIR analysis of the Project Modifications.

Local Plans, Ordinances and Policies

Since preparation of the 2009 EIR, there have been minimal regulatory changes related to hazards and hazardous materials relevant to this SEIR analysis. The following programs and policies related to emergency services are included as they represent new policies relevant to the Project Modifications.

Alameda County Sheriff's Office - Office of Emergency Services

The Alameda County Sheriff's Office - Office of Emergency Services (County OES) is the lead agency for Alameda County under the Standardized Emergency Management System. The

purpose of the County OES is to prepare the County to respond efficiently and effectively to emergencies, which threaten life, property, or the environment. The County OES administers and operates the Emergency Operations Center from which centralized emergency management can be conducted. The Emergency Operations Center is activated by an on-call County OES Coordinator in the event of an emergency. Under such condition, the Emergency Operations Center supports and coordinates emergency response and recovery operations; coordinates and works with other appropriate federal, state and other local government agencies; and prepares and disseminates emergency public information, among other responsibilities.

The Alameda County Board of Supervisors adopted the current Emergency Operations Plan in 2012. The Alameda County operational area includes the City of Oakland. The Emergency Operations Plan is an extension of the state's California Emergency Plan, and provides tasks, policies, and procedures for managing multi-agency and multi-jurisdictional emergency operations, public information functions and resource management. The Emergency Operations Plan identifies a number of potential threats based upon a hazard analysis, including earthquakes, wildland urban/interface fire, extreme weather, public health emergency, technological and resource emergency, hazardous material incident, terrorism, floods and landslides.

In addition, in 2011, the County OES, with participation by 12 of the incorporated cities in Alameda County including Oakland, committed to participating with the 2010 Association of Bay Area Governments Local Hazard Mitigation Plan, *Taming Natural Disasters, Multi-Jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area*. This serves as the County's Local Hazard Mitigation Plan pursuant to the State Disaster Mitigation Act of 2000. The document identifies the County-wide mitigation strategies to be implemented by the participating agencies in order to reduce hazard risk and increase resiliency throughout Alameda County.

Oakland Standard Conditions of Approval (SCAs)

The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) in 2008, and they have since been amended and revised several times.¹ Like other regulations, the SCAs apply to all projects in the City regardless of their CEQA impacts. The SCAs are not mitigation measures and therefore are not listed as mitigation measures. If the Project Modifications are approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project Modifications. With the implementation of the SCAs, some of the mitigation measures from the 2009 EIR are no longer needed, and this SEIR notes when that occurs.² There are no SCAs relevant to hazards and hazardous materials.

¹ A revised set of SCAs was recently published by the City of Oakland in December, 2020.

² Where SCAs replace mitigation measures for the Project Modifications, such replacement does not indicate that the Project Modifications would have new or substantially more severe environmental impacts than the Approved Project.

IV.H.3 Impacts and Mitigation Measures

Significance Criteria

The City of Oakland has established thresholds of significance for CEQA impacts, which incorporate those in Appendix G of the CEQA Guidelines (City of Oakland, 2016). Based on these thresholds, the Project Modifications would have a significant impact on the environment if it would:

- 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. Create a significant hazard to the public through the storage or use of acutely hazardous materials near sensitive receptors;³
- D. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- E. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 (i.e., the “Cortese List”) and, as a result, would create a significant hazard to the public or the environment;⁴
- F. Result in less than two emergency access routes for streets exceeding 600 feet in length unless otherwise determined to be acceptable by the Fire Chief, or his/her designee, in specific instances due to climatic, geographic, topographic, or other conditions;
- G. 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, and would result in a significant safety hazard for people residing or working in the project area;
- H. Be located within the vicinity of a private airstrip, and would result in a significant safety hazard for people residing or working in the project area;
- I. Fundamentally impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- J. 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.

³ Per the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines, evaluate whether the project would result in persons being within the Emergency Response Planning Guidelines (ERPG) exposure level 2 for acutely hazardous air emissions either by siting a new source or a new sensitive receptor. For this threshold, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers.

⁴ The Cortese List includes hazardous waste sites from Department of Toxic Substances Control (DTSC) EnviroStor database, leaking underground storage tank sites from the Water Board GeoTracker database, list of solid waste disposal sites with waste constituents above hazardous waste levels outside the waste management unit, list of active Cleanup and Desist Orders and Cleanup and Abatement Orders from Water Board, and list of hazardous waste facilities subject to corrective action by the DTSC.

Methodology

Consistent with CEQA guidance, the SEIR is required to evaluate only the changes in the project, circumstances, or significant new information that could give rise to new significant environmental impacts or substantially more severe environmental impacts than were analyzed in the SEIR as compared to that contained in the 2009 EIR. As such, in accordance with CEQA Guidelines Section 15163, the SEIR contains information necessary to disclose environmental impacts from the Project Modifications that were not analyzed in the 2009 or would be substantially more severe than anticipated by the 2009 EIR. This SEIR evaluates the Project Modifications using the City's current methodology, significance criteria, and thresholds. The analysis relies on the environmental baseline, which is the physical circumstances existing at the time the NOP was published in September 2018, and also compares the Project Modification to the Approved Project to determine if the modifications create any new or substantially more severe impacts on the environment. This SEIR discusses new City requirements and analysis methods established since preparation of the 2009 EIR, such as the incorporation of the City's SCAs, which would be required conditions of approval for the Project Modifications.

Changes that have occurred to the regulatory setting since preparation of the 2009 EIR are described above. Since preparation of the 2009 EIR, the City has added criteria addressing the need for two emergency access routes where there are potential hazards from wildland fires (Criteria F and J) to their CEQA Thresholds of Significance for hazards and hazardous materials. These are not significant changes. There are no changes to the environmental setting relevant to the analysis of hazards. Therefore, the impact discussions and analyses below focus on the activities associated with the Project Modifications and support the conclusion that the potential for hazards and hazardous materials impacts associated with those activities would not create any new or substantially more significant impacts than the Approved Project.

Hazards and Hazardous Materials Impacts Determined to Require No Further Analysis in this SEIR

The Project site is not located within two miles of a public airport or private airstrip or within the airport influence area of either Oakland International Airport or San Francisco International Airport (ACCDA, 2012 and SFIA, 2015). Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina and relocating a tower, the Project Modifications would not alter the Approved Project's Project site and therefore would not result in a new impact related to a significant safety hazard for people residing or working in the project area. (Criteria G and H, above).

As discussed above, wildland fire was added in the update to the CEQA Guidelines as a separate environmental topic for consideration with regard to impacts that could occur in areas in or near State Responsibility Areas (SRA) or lands classified as very high fire hazard severity zones. The Project site is predominately surrounded by the Oakland Estuary and is boarder on the northeast by the Embarcadero and I-680, which separates the site from the urban environment of Downtown Oakland. The Project site is not located in or near a SRA or lands classified as very high fire severity zones (CAL FIRE, 2008). Therefore, no impact would occur with regard to wildland fire (Criterion J).

Impacts

Impact HAZ-1: The Project Modifications would not create a significant hazard to the public or the environment through the routine transport, use, disposal, accidental release, or storage of hazardous or acutely hazardous materials. (Criteria A, B, and C) (*Less than Significant*)

Although the Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV equal to the decreased mass in Phase II, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would occur within the same overall building envelopes as the Approved Project. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project. The Project Modifications would result in an approximate 10 percent increase in labor force and associated worker trips to and from the site, as well as an approximately 10 percent increase in delivery trips to develop the additional 600 residential units on Phases III and IV. The marina expansion component (Phase VI) would result in additional construction-related delivery trips and extended construction timeframe due to limited in-water construction. Phase VI is anticipated to be constructed over five seasons (rather than one season) with approximately 20 construction materials delivery trips per season.

As described above in the Environmental Setting, onsite demolition of structures is mostly or entirely complete and no demolition would be associated with the Project Modifications. The Modified Project would be required to adhere to the 2009 Mitigation Measures requiring cleanup plans; storage, transport, and disposal of hazardous waste including groundwater; and construction best management plans.

The marina expansion component of the Project Modifications would shift marina construction away from the north side of Clinton Basin, which contains a lot of sediment, much of which is contaminated and thereby reduce the need for dredging contaminated sediment. Instead the Project Modifications would redevelop only the southern portion of Clinton Basin, which does not require substantial dredging, and then expand the marina along the Shoreline Park. As such, potential impacts of the Project Modifications related to disposal of hazardous waste at a Class I hazardous waste facility is consistent with the less-than-significant impacts identified in the 2009 EIR. Consequently, construction-related hazardous material impacts of the Project Modifications would be no greater than disclosed in the 2009 EIR.

The Project Modifications would result in more residential units and potentially an associated increase in the handling of general household hazardous waste on the Project site. As with the Approved Project, household hazardous materials are generally handled and transported in small quantities. Health effects associated with these materials are generally not as serious as those used for industrial purposes. For this reason, the Project Modifications are not anticipated to cause an adverse effect on the environment with respect to the use, storage, or disposal of general household hazardous materials.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The potential to create a significant hazard to the public or the environment through the routine transport, use, disposal, accidental release, or storage of hazardous or acutely hazardous materials were analyzed in the 2009 (Impacts H.1, H.2, H.3, and H.4). The potential impacts were determined to be less than significant with mitigation (2009 Mitigation Measures H.1a through H.1e, H.2a through H.2d and H.3). Risks related to the Project Modifications are the same as, or reduced, compared with those identified in the 2009 EIR and they remain less than significant. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information,” pursuant to CEQA Guidelines Section 15162.

Impact HAZ-2: The Project Modifications would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed schools. (Criterion D) (*Less than Significant*)

The DTSC defines acutely and extremely hazardous materials as P-listed wastes in the federal waste classification system (U.S. EPA). The P-list includes a number of specific chemicals including various pesticides, metals, and PCBs, all with specific concentrations. None of these materials would be used or encountered during operation of the Project. Furthermore, as addressed in the 2009 EIR, there are no schools within one-quarter mile of the Project site. Therefore, the impact relative to sensitive receptors is less than significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The Project Modification’s impact related to contaminated soil, dredged sediment, or groundwater are reduced when compared with those identified for the Approved Project in the 2009 EIR (Impacts H.1, H.2, H.3, and H.4). The Approved Project’s potential impacts were determined to be less than significant with implementation of 2009 Mitigation Measures H.1a, H.1b, H.1c, H.1d, H.1e, H.2a, H.1b, H.2c, H.2d, and H.3. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information,” pursuant to CEQA Guidelines Section 15162.

Impact HAZ-3: The Project Modifications would not be located on a site identified under Government Code section 65962.5. (Criterion E) (*No Impact*)

As of the date of the NOP (September 2018), the Project site is no longer included in the Government Code section 65962.5 (the Cortese List) list of Hazardous Waste and Substances sites in the DTSC EnviroStor database, due to completed remediation (CalEPA, 2019). Therefore, the Project Modifications would result in no impact with respect to this criterion.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The Approved Project's impact related to site location on an identified under Government Code section 65962.5 was analyzed in the 2009 EIR under Impact H.1 (*less than significant with mitigation*). Due to changes to the Project site, the Project Modifications would not contribute to this impact and no mitigation is necessary for the Project Modifications. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, "changed circumstances," or "new information," pursuant to CEQA Guidelines Section 15162.

Impact HAZ-4: The Project Modifications would not result fewer than two emergency access routes for streets exceeding 600 feet in length. (Criterion F) (*Less than Significant*)

The Approved Project circulation plan includes seven roads that would intersect directly with the Embarcadero. The 2009 Mitigation Measures include improvements to these intersections, many of which have already been implemented. Overall, the Approved Project will improve Project site emergency access routes. The Project Modifications would not alter the Approved Project's circulation plan. Consequently, impacts of the Project Modifications related to this criterion are not reevaluated herein.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: No analysis was conducted in the 2009 EIR and no new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, "changed circumstances," or "new information," pursuant to CEQA Guidelines Section 15162.

Impact HAZ-5: The Project Modifications would not fundamentally impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. (Criterion I) (*Less than Significant*)

The Project Modifications would not alter the Approved Project's circulation, parking or transportation plan related to site access. The Project Modifications would therefore result in a less-than-significant impact related to the implementation of an adopted emergency response plan or emergency evacuation plan.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The Approved Project's potential to interfere with an adopted emergency response or evacuation plan was discussed in the 2009 EIR and the impact was determined to be less than significant (Impact H6).

The potential impacts of the Project Modifications are the same as those identified in the 2009 EIR. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Cumulative Impacts

Cumulative Context

The cumulative context considered for cumulative hazards and hazardous materials impacts encompasses and is limited to the Project site and its immediate adjacent area. Impacts related to hazards and hazardous materials are generally site-specific and depend on the nature and extent of the hazardous materials release, and existing and future soil and groundwater conditions. For example, hazardous materials incidents tend to be limited to a smaller more localized area surrounding the immediate spill location and extent of the release, and could only be cumulative if two or more hazardous materials releases spatially overlapped. As previously discussed, the Project Modifications would have no impact with respect airports, airstrips, or wildland fires. Accordingly, the Project Modifications could not contribute to cumulative impacts related to these topics and are not discussed further.

Impacts

Impact HAZ-6: The Project Modifications, when combined with other past, present, and reasonably foreseeable cumulative development in the vicinity, would not result in cumulative hazardous materials impacts. (*Less than Significant*)

Significant cumulative impacts related to hazards and hazardous material could occur if the incremental impacts of the Project Modifications combined with the incremental impacts of one or more cumulative projects to substantially increase risk. Cumulative projects would be subject to the same regulatory requirements discussed for the Approved Project and the Project Modifications, including the implementation of health and safety plans, soil management plans, and operational containment and treatment of hazardous materials, as needed. Cumulative projects involving releases of or encountering hazardous materials also would be required to remediate their respective sites to the same established regulatory standards. This would be the case regardless of the number, frequency, or size of the release(s), or the residual amount of chemicals present in the soil from previous spills. Similarly, other cumulative construction projects would be required to provide appropriate traffic control and emergency access for their projects. While it is possible that the Project Modifications and cumulative projects could result in releases of hazardous materials at the same time and in overlapping locations, the responsible party associated with each spill would be required to remediate site conditions to the same established regulatory standards.

The residual less-than-significant impacts of the Project Modifications would not combine with the potential residual effects of cumulative projects to cause a potential significant cumulative

impact because residual impacts would be highly site-specific. Accordingly, no significant cumulative impact with respect to the use or release of hazardous materials would result.

With respect to emergency response during operation, as described in the *Regulatory Setting* above, the County OES is the lead agency to support and coordinate emergency response and recovery operations in the County. The OES also participates in the Local Hazard Mitigation Plan and the Alameda County EOP. These regional plans are adaptive to changes in population and provide the inter-agency coordination to ensure that emergency response and evacuation can be effectively coordinated in an emergency. All cumulative projects would be required to comply with the same regulations. Please see Section IV.L, *Public Services and Recreation*, and Section IV.B, *Transportation and Circulation*, for effects on fire and police departments and emergency vehicle access. Overall, the effects of the Project Modifications would not combine with other cumulative development in the surrounding area to become cumulatively considerable.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential for a cumulative impact related to hazards and hazardous materials is substantially the same as identified in the 2009 EIR (Impact H.7) (*less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

IV.H.4 References

- Alameda County Community Development Agency (ACCCA), 2012. *Oakland International Airport, Airport Land Use Compatibility Plan*, December, 2012.
- California Department of Forestry and Fire Protection (CAL FIRE), 2008. *Alameda County Very High Fire Hazard Zones in LRA, As Recommended by CAL FIRE*, September 3, 2018. http://frap.fire.ca.gov/webdata/maps/alameda/fhszl_map.1.pdf. Accessed February 5, 2019.
- California Department of Toxic Substances Control (DTSC), 2019. *Brooklyn Basin (7000109), Activities*. Available: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=70000109. Accessed September 5, 2019.
- California Environmental Protection Agency (CalEPA), 2019. *Cortese List Data Resources*. Available: <http://www.calepa.ca.gov/sitecleanup/corteselist/>. Accessed September 4, 2019.
- City of Oakland, 2016. *CEQA Thresholds of Significance Guidelines*. October 17, 2016.
- San Francisco International Airport (SFIA), 2015. *2019 Noise Exposure Map*, August 13, 2015, https://media.flysfo.com/media/sfo/noise-abatement/sfo_p150_2019-nem-36x24-plot-signed_ada.pdf. Accessed March 18, 2019.

U.S. Environmental Protection Agency (U.S. EPA), 2019. *Hazardous Waste, Defining Hazardous Waste: Listed, Characteristic and Mixed Radiological Wastes, The P and U Lists*. Available: <https://www.epa.gov/hw/defining-hazardous-waste-listed-characteristic-and-mixed-radiological-wastes#PandU>. Accessed October 4, 2019.

IV.I Biological Resources

This section presents an analysis of potential impacts on biological resources that would result from the Project Modifications described in Chapter III, *Project Description*. The affected environment, regulatory setting, and analysis from the 2009 EIR are relied on to the extent relevant in this Supplemental EIR (SEIR), and are discussed to the extent that they differ from those described in the 2009 EIR. This section analyzes the direct, indirect, and cumulative effects of the Project Modifications and compares them to the conclusions of the 2009 EIR; provides modifications (additions, deletions, updates, or other revisions), as needed, to the approved mitigation measures provided in the adopted Final EIR MMRP; and identifies any residual effects that may remain following the implementation of such measures.

IV.I.1 Environmental Setting

The 2009 EIR defined the regional and site setting for the Project, which is located on industrial and commercial properties built on reclaimed historic tidal marsh and mudflats of the Oakland Estuary between the Port of Oakland, Union Pacific rail tracks, and Interstate 880 (I-880). The aquatic portion of the regional setting includes a system of interconnected water bodies and harbors confined within the Inner Harbor of the Oakland Estuary. The Lake Merritt Channel connects the Inner Harbor with Lake Merritt and the Clinton and Brooklyn Basins. The Oakland Inner Harbor, the Lake Merritt Channel, and the two basins create much of the Project site shoreline. No substantive changes have occurred in the regional setting since preparation of the 2009 EIR was certified.

Since certification of the 2009 EIR, the Project site has developed with Phases I and II of site improvements, which includes grading, construction and occupation of certain structures. Chapter III, *Project Description*, includes a list of improvements and construction on the Project site as of the NOP (September 2018).

Biological Resources at or Near the Project Site

Since preparation of the 2009 EIR, several species' statuses have changed including the delisting of California brown pelican and additional bird species with a moderate potential to occur on the site. An assessment of the existing conditions and biological resources as it pertains to the Project Modifications, including the current status of special-status species, was generated in January 2018 by Anchor QEA, LLC (Appendix E).

IV.I.2 Regulatory Setting

Since the preparation of the 2009 EIR, there have been updates to the Marine Mammal Protection Act, which are described below. There have been no other changes to the regulatory setting with respect to the analysis of biological resources.

Federal and State

Marine Mammal Protection Act

Pursuant to the Marine Mammal Protection Act, the National Marine Fisheries Service (NMFS) has established two levels of harassment related to marine mammals:

- **Level A:** Any act of pursuit, torment or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild.
- **Level B:** Any act of pursuit, torment, or annoyance which has the potential to disturb a marine mammal or marine mammal stock in the wild by causing the disruption of behavioral patterns, including but not limited to migration, breathing, nursing, breeding, feeding or sheltering.

Since the preparation of the 2009 EIR, NMFS has applied sound thresholds to each of these harassment categories depending on the species of marine mammal. To be considered Level A harassment, cetaceans and certain pinnipeds must be exposed to sound levels of 173 and 201 dB root-mean-square pressure level or greater, respectively. Level B, behavioral harassment is considered to occur when any marine mammal is exposed to 160 dB root-mean-square pressure level for impact pile driving (**Table IV.1-1**).

**TABLE IV.1-1
ADOPTED UNDERWATER ACOUSTIC CRITERIA FOR MARINE MAMMALS**

Hearing Group	Level A Harassment Thresholds	Level B Harassment Threshold
High-Frequency Cetaceans (harbor porpoises)	173 dB	160 dB
Phocid Pinnipeds (harbor seals)	201 dB	
Otariid Pinnipeds (sea lions, fur seals)	219 dB	

NOTE: dB = decibel
SOURCE: NOAA 2018a

California Eelgrass Mitigation Policy and Implementation Guidelines

In 2014, NMFS developed *California Eelgrass Mitigation Policy and Implementation Guidelines*, to ensure no net loss of eelgrass habitat function occurs within California. Contained within that document are guidelines for pre-project surveys, avoidance and minimization measures to implement during construction, and mitigation options for unavoidable impacts to eelgrass habitat (NMFS, 2014).

Oakland Standard Conditions of Approval (SCAs)

The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) in 2008, and they have since been amended and revised several times.¹ Like

¹ A revised set of SCAs was recently published by the City of Oakland in December, 2020.

other regulations, the SCAs apply to projects in the City regardless of their CEQA impacts. The SCAs are not mitigation measures and therefore are not listed as mitigation measures. If the Project Modifications are approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project Modifications. With the implementation of the SCAs, some of the mitigation measures from the 2009 EIR are no longer needed, and this SEIR notes when that occurs.² Below are the SCAs relevant to biological resources:

- **SCA BIO-1 (SCA 28): Bird Collision Reduction Measures.** *Prior to approval of a construction-related permit.* The following measures apply to all construction projects which include glass as part of the building's exterior AND at least one of the following: a) The project is located immediately adjacent to a substantial water body (e.g. Oakland Estuary, San Francisco Bay, Lake Merritt or other lake, reservoir or wetland); OR b) The project is located immediately adjacent to recreation area or park larger than one acre and which contains substantial vegetation; OR c) The project includes a substantial vegetated or green roof (roofs with growing medium and plants taking the place of conventional roofing such as asphalt, tile, gravel or shingles) but excluding container gardens; OR d) The project includes an existing or proposed substantial vegetated area (generally contiguous one acre in size or larger) located directly adjacent to project buildings.

The project applicant shall submit a Bird Collision Reduction Plan for City review and approval to reduce potential bird collisions to the maximum feasible extent. The Plan shall include all of the following mandatory measures, as well as applicable and specific project Best Management Practice strategies to reduce bird strike impacts to the maximum feasible extent. The project applicant shall implement the approved Plan. Mandatory measures include all of the following:

- i. For large buildings subject to federal aviation safety regulations, install minimum intensity white strobe lighting with three second flash instead of solid red or rotating lights.
- ii. Minimize the number of and co-locate rooftop-antennas and other rooftop structures.
- iii. Monopole structures or antennas shall not include guy wires.
- iv. Avoid the use of mirrors in landscape design.
- v. Avoid placement of bird-friendly attractants (i.e., landscaped areas, vegetated roofs, water features) near glass unless shielded by architectural features taller than the attractant that incorporate bird friendly treatments no more than two inches horizontally, four inches vertically, or both (the "two-by-four" rule), as explained below.
- vi. Apply bird-friendly glazing treatments to no less than 90 percent of all windows and glass between the ground and 60 feet above ground or to the height of existing adjacent landscape or the height of the proposed landscape. Examples of bird-friendly glazing treatments include the following:
 - Use opaque glass in window panes instead of reflective glass.

² Where SCAs replace mitigation measures for the Project Modifications, such replacement does not indicate that the Project Modifications would have new or substantially more severe environmental impacts than the Approved Project.

- Uniformly cover the interior or exterior of clear glass surface with patterns (e.g., dots, stripes, decals, images, abstract patterns). Patterns can be etched, fritted, or on films and shall have a density of no more than two inches horizontally, four inches vertically, or both (the “two-by-four” rule).
- Install paned glass with fenestration patterns with vertical and horizontal mullions no more than two inches horizontally, four inches vertically, or both (the “two-by-four” rule).
- Install external screens over non-reflective glass (as close to the glass as possible) for birds to perceive windows as solid objects.
- Install UV-pattern reflective glass, laminated glass with a patterned UV-reflective coating, or UV-absorbing and UV-reflecting film on the glass since most birds can see ultraviolet light, which is invisible to humans.
- Install decorative grilles, screens, netting, or louvers, with openings no more than two inches horizontally, four inches vertically, or both (the “two-by-four” rule).
- Install awnings, overhangs, sunshades, or light shelves directly adjacent to clear glass which is recessed on all sides.
- Install opaque window film or window film with a pattern/design which also adheres to the “two-by-four” rule for coverage.

vii. Reduce light pollution. Examples include the following:

- Extinguish night-time architectural illumination treatments during bird migration season (February 15 to May 15 and August 15 to November 30).
- Install time switch control devices or occupancy sensors on non-emergency interior lights that can be programmed to turn off during non-work hours and between 11:00 p.m. and sunrise.
- Reduce perimeter lighting whenever possible.
- Install full cut-off, shielded, or directional lighting to minimize light spillage, glare, or light trespass.
- Do not use beams of lights during the spring (February 15 to May 15) or fall (August 15 to November 30) migration.

viii. Develop and implement a building operation and management manual that promotes bird safety. Example measures in the manual include the following:

- Donation of discovered dead bird specimens to an authorized bird conservation organization or museums (e.g., UC Berkeley Museum of Vertebrate Zoology) to aid in species identification and to benefit scientific study, as per all federal, state and local laws.
- Distribution of educational materials on bird-safe practices for the building occupants. Contact Golden Gate Audubon Society or American Bird Conservancy for materials.
- Asking employees to turn off task lighting at their work stations and draw office blinds, shades, curtains, or other window coverings at end of work day.

- Install interior blinds, shades, or other window coverings in windows above the ground floor visible from the exterior as part of the construction contract, lease agreement, or CC&Rs.
- Schedule nightly maintenance during the day or to conclude before 11 p.m., if possible.

IV.I.3 Impacts and Mitigation Measures

Significance Criteria

The City of Oakland has established thresholds of significance for CEQA impacts which incorporate those in Appendix G of the CEQA Guidelines (City of Oakland, 2016). Based on these thresholds, the Project Modifications would have a significant impact on the environment if it would:

- 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 or state protected wetlands (as defined by section 404 of the Clean Water Act) or state protected wetlands, through direct removal, filling, hydrological interruption, or other means;
- D. Substantially 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. Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan;
- F. Fundamentally conflict with the City of Oakland Tree Protection Ordinance (Oakland Municipal Code Chapter 12.36) by removal of protected trees under certain circumstances [NOTE: Factors to be considered in determining significance include the number, type, size, location and condition of (a) the protected trees to be removed and/or impacted by construction and (b) protected trees to remain, with special consideration given to native trees. Protected trees include *Quercus agrifolia* (California or coast live oak) measuring four inches diameter at breast height or larger, and any other tree measuring nine inches diameter at breast height or larger except eucalyptus and *Pinus radiata* (Monterey pine); provided, however, that Monterey pine trees on City property and in development-related situations where more than five Monterey pine trees per acre are proposed to be removed are considered to be protected trees.];³ or
- G. Fundamentally conflict with the City of Oakland Creek Protection Ordinance (Oakland Municipal Code Chapter 13.16) intended to protect biological resources. [Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in

³ Oakland Planning Code section 17.158.280(E)(2) states that “Development related” tree removal permits are exempt from CEQA if no single tree to be removed has a diameter at breast height of 36 inches or greater and the cumulative trunk area of all trees to be removed does not exceed 0.1 percent of the total lot area.

determining significance include whether there is substantial degradation of riparian and/or aquatic habitat through (a) discharging a substantial amount of pollutants into a creek, (b) significantly modifying the natural flow of the water, (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability, or (d) adversely impacting the riparian corridor by significantly altering vegetation or wildlife habitat.]

Methodology

Consistent with CEQA guidance, the SEIR is required to evaluate only the changes in the project, circumstances, or new information that could give rise to new significant environmental impacts or substantially more severe environmental impacts than were analyzed in the 2009 EIR. As such, in accordance with CEQA Guidelines Section 15163, this SEIR contains information necessary to disclose environmental impacts from the Project Modifications that were not analyzed in the 2009 or would be substantially more severe than anticipated by the 2009 EIR. This SEIR evaluates the Project Modifications using the City's current methodology, significance criteria, and thresholds. The analysis relies on the environmental baseline, which is the physical circumstances existing at the time the NOP was published in September 2018, and also compares the Project Modification to the Approved Project to determine if the modifications create any new or substantially more severe impacts on the environment. This SEIR discusses new City requirements and analysis methods established since preparation of the 2009 EIR, such as the incorporation of the City's SCAs, which would be required conditions of approval for the Project Modifications.

Changes that have occurred to the environmental and regulatory setting since preparation of the 2009 EIR are described above. The City's CEQA Thresholds of Significance for biological resources have not changed since preparation of the 2009 EIR. The impact discussions and analyses below focus on the activities associated with the Project Modifications and the potential for biological resources impacts associated with those activities that were not previously disclosed in the 2009 EIR.

Impacts

Impacts on Special-Status Birds, Migratory Birds, Special-Status Bats, or otherwise Protected Bats

Impact BIO-1: The Project Modifications would not 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. (Criterion A) (*Less than Significant*)

The Project Modifications would not result in significant changes to onshore construction as analyzed in the 2009 EIR. Although the Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would occur within the same overall building envelopes as the Approved Project. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project and this SEIR

assumes that there would be no substantial increase in duration of residential construction-related activity with approval of the Project Modifications. The Project Modifications would result in an approximate 10 percent increase in labor force and associated worker trips to and from the site, as well as an approximately 10 percent increase in delivery trips to develop the additional 600 residential units on Phases III and IV. The marina expansion component (Phase VI) would result in additional construction-related delivery trips and extended construction timeframe due to limited in-water construction. Phase VI is anticipated to be constructed over five seasons rather than one season, with approximately 20 construction materials delivery trips per season. Suitable habitat for bird nesting and bat roosting in the vicinity of Project construction is limited by existing development; birds and bats residing in this area would be habituated to human disturbance and vehicle traffic. Because the Project Modifications would require only minimal additional construction work (either workers or seasons) compared to the Approved Project, the Project Modifications would not change the Approved Project's potential impacts from construction on roosting bats, or nesting habitat for breeding raptors and passerine birds.

As noted above, updated database searches for special-status species located in the areas relevant to the Project site are included in this analysis (see Appendix E). Although several species' naming and statuses have changed since preparation of the 2009 EIR analysis, no delistings or additions equate to substantial changes relative to the findings in the 2009 EIR with respect to CEQA Guidelines 15162. In other words, the changes in the environmental conditions under which the Approved Project and Project Modifications would be undertaken do not require major revisions of the 2009 EIR due to involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. The 2009 Mitigation Measures identified for special status species, 2009 Mitigation Measures I.4a, I.4b, and I.5, remain relevant and adequate for the Approved Project.

As described in Chapter III, *Project Description*, one component of the Project Modifications is the potential residential tower relocation of one of the Approved Project's approved tower designation sites from either Parcel H or J to either Parcel L or M, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV (and decreased building mass in Phase II). Although not designed, it is likely that residential towers on the Project site would include glass exterior. Further, Parcel M is adjacent to Channel Park and Parcel L is adjacent to the estuary. For these reasons, the Project Applicant would be required to implement **SCA BIO-1, Bird Collision Reduction Measures** for the Project Modifications. These measures would reduce the potential for bird-building collisions to the maximum extent feasible by submitting a Bird Collision Reduction Plan for City review and approval. The Plan would protect birds by requiring implementation of Best Management Practices to reduce bird strike collisions, such as using bird-friendly glazing, avoidance of bird-friendly attractants near glass, reduction of light pollution, and other appropriate measures. In addition, mandatory light pollution measures would be implemented as part of compliance with SCA BIO-1 and the Bird Collision Reduction Plan. Therefore, the Project Modifications would not cause an adverse impact to birds from light or glare.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The Approved Project’s construction impacts on nesting bird habitat was discussed in the 2009 EIR (Impact I.4 and I.5), and the conclusion was a less-than-significant impact with implementation of 2009 Mitigation Measures I.4a, I.4b, and I.5. The Project Modifications would not include any change to onshore construction that would contribute to these impacts. The Project Modifications would incorporate the City’s updated SCAs including SCA BIO-1, which would ensure less-than-significant impacts associated with the potential residential tower relocation. The tower relocation would not reduce the amount of suitable habitat for nesting birds. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Impacts on Special-Status Aquatic Species

Impact BIO-2: Project Modifications would not have a substantial adverse effect, either directly or through habitat modifications, on special-status aquatic species. (Criterion A) (*Less than Significant with Mitigation*)

Construction-Related Impacts

While the Project Modifications would not result in significant changes to onshore construction as analyzed in the 2009 EIR, additional in-water construction activity would be associated with the marina expansion and is therefore analyzed in this SEIR. The Project Modifications would replace the existing Clinton Basin Marina with a new marina extending from Clinton Basin along the Shoreline Park waterfront to Brooklyn Basin. The marina expansion component (Phase VI) would result in additional construction-related delivery trips and extended construction timeframe due to limited in-water construction. Phase VI is anticipated to be constructed over five season with approximately 20 construction materials delivery trips per season.

The expanded marina would consist of pre-manufactured concrete floating dock system comprised of 14 docks, ranging from 40 to 80 feet in length, to be constructed in five phases. The expanded marina would wrap along the shoreline from immediately east of 9th Avenue, continuing west and then northeast, and terminating at the most northern portion of Clinton Basin. The docks constructed along the most southwestern portion of Clinton Basin would accommodate larger vessels (up to 80 feet in length), with a long dock extending north along the shoreline. This expansion in marina footprint would require the installation of 14-, 16-, and 18-inch steel piles to support the marina platforms. A summary of piles planned for installation are presented in **Table IV.I-2**.

Given the large number of piles proposed, and piles per day, in-water pile-driving activities are anticipated to occur over approximately 21 days. Construction would be limited to the hours of 7 a.m. to 8 p.m., and the maximum daily duration of construction would therefore be 13 hours per day.

**TABLE IV.I-2
 BROOKLYN BASIN MARINE PROJECT PILE DETAILS**

Pile Diameter (inches)	Pile Type	Installation Method	Number of Piles ^a	Piles per Day	Strikes per Pile ^a
14	Steel	Impact hammer with bubble curtain	50 (permanent)	8	400
16	Steel	Impact hammer with bubble curtain	27 (permanent)	8	425
18	Steel	Impact hammer with bubble curtain	85 (permanent)	8	450

NOTES:

^a Pile and strike counts are approximate, based on preliminary project designs and substrate conditions

SOURCE: Anchor QEA, 2018 (Appendix E)

Of primary concern with the in-water installation of piles is the potential for the generation of underwater noise at a level that is harmful to marine species. Pile driving can produce high-intensity noise resulting in damage to the soft tissues of fish, such as gas bladders or eyes (barotraumas) and/or result in harassment of fish and marine mammals such that they alter swimming, sleeping, or foraging behavior or temporarily abandon forage habitat.

Pile-driving associated with the construction/renovation of marina facilities and structures was analyzed in the 2009 EIR. However, since the preparation of the 2009 EIR, NMFS has established underwater noise impact thresholds for both marine mammals and fish. Underwater sound thresholds for marine mammals are shown above in Table IV.1-1. Scientific investigations on the potential effects of noise on fish indicate that sound levels below the 183 dB sound exposure level do not appear to result in any acute physical damage or mortality to fish (*barotraumas*) of any size (Dalen & Knutsen, 1986). **Table IV.I-3** provides a summary of known acute and sub-lethal effects of noise on fish. Noise levels that result in startle responses in steelhead trout and salmon have been documented to occur at sound levels as low as 150 dB root-mean-square pressure level (Halvorsen, et al. 2012). Any disturbance to federal or state-listed fish species that results in altered swimming, foraging, movement along a migration corridor, or any other altered normal behavior is considered harassment and thus a potentially significant impact.⁴

Pile installation required for the marina expansion has the potential to generate elevated sound levels that could result in impacts to marine mammal species in the vicinity of the Project site. However, it should be noted that ambient underwater noise for the San Francisco Bay and the Oakland Inner Harbor was measured at between 120 and 150 dB as part of sound monitoring conducted for the San Francisco/Oakland Bay Bridge Project (California Department of Transportation [Caltrans], 2015).

⁴ It should be noted that the acoustic thresholds shown in Table IV.I-3 regard sound levels generated for impact pile driving, no criteria for vibratory pile driving exist for special-status fish at this time.

**TABLE IV.I-3
 POTENTIAL EFFECTS TO FISH AT VARYING NOISE LEVELS**

Taxa	Sound Level (dB)	Effect	Reference
Fish			
All fish > 2 grams in size	206 dB Peak 187 dB SEL	Acute Barotraumas	Fisheries Hydroacoustic Working Group, 2008
All fish < 2 grams in size	186 dB SEL	Acute Barotraumas	Fisheries Hydroacoustic Working Group, 2008
Salmon, steelhead	150 dB RMS	Avoidance Behavior	Halvorsen et al. 2012

NOTES:

^a SEL = sound exposure level; RMS = root-mean-square pressure level

Given the uncertainties regarding the exact pile configuration and installation methods to be used for proposed in-water construction, there remains a potential that construction of the Project Modifications could have an adverse effect on protected marine mammals. Therefore, implementation of **Mitigation Measure BIO-2: Fish and Marine Mammal Protection during Pile Driving**, would be required to ensure that potential impacts from pile installation are less than significant.

Mitigation Measure BIO-2, below, includes measures to ensure that hydroacoustic impacts on fish and marine mammals would remain below the threshold of concern. This includes the implementation of a “soft start” technique. During a “soft start” a pile is initially driven with low hammer energy. This movement of the pile through the water column and initial contact with the bay floor gives any fish and marine mammals present a chance to leave the immediate area.

Mitigation Measure BIO-2: Fish and Marine Mammal Protection during Pile Driving.

Prior to the start of any in-water construction that would require pile driving, the Project Applicant shall prepare a NMFS-approved sound attenuation monitoring plan to protect fish and marine mammals, and the approved plan shall be implemented during construction. This plan shall provide detail on the sound attenuation system, detail methods used to monitor and verify sound levels during pile driving activities (if required based on projected in-water noise levels), and describe measures to reduce impact pile-driving in the aquatic environment to an intensity level less than 183 dB (sound exposure level, SEL) impulse noise level for fish at a distance of 33 feet, and 160 dB (root mean square pressure level, RMS) impulse noise level. The plan shall incorporate, but not be limited to, the following best management practices:

- All in-water construction shall be conducted within the established environmental work window between June 1 and November 30, designed to avoid potential impacts to fish species.
- A soft start technique to impact hammer pile driving shall be implemented, at the start of each work day or after a break in impact hammer driving of 30 minutes or more, to give fish and marine mammals an opportunity to vacate the area.

- If during the use of an impact hammer, established National Marine Fisheries Service pile driving thresholds are exceeded, a bubble curtain or other sound attenuation method as described in the National Marine Fisheries Service-approved sound attenuation monitoring plan shall be utilized to reduce sound levels below the criteria described above. If National Marine Fisheries Service sound level criteria are still exceeded with the use of attenuation methods, a National Marine Fisheries Service-approved biological monitor shall be available to conduct surveys before and during pile driving to inspect the work zone and adjacent waters for marine mammals. The monitor shall be present as specified by the National Marine Fisheries Service during impact pile driving and ensure that:
 - The safety zones established in the sound monitoring plan for the protection of marine mammals are maintained.
 - Work activities are halted when a marine mammal enters a safety zone and resumed only after the animal has been gone from the area for a minimum of 15 minutes.

Operations-Related Impacts

The marina expansion component of the Project Modifications would result in a net increase in the area of over-water structures and shading. The shading of the water column and benthic habitat as a result of overwater structure installation has the potential to reduce the quality of fish habitat within the area shaded by the structure. Overwater shading has been demonstrated to reduce the growth rates and establishment of aquatic vegetation, decrease primary productivity, alter predator-prey dynamics, compromise the invertebrate community by changing the species composition, and reduce the overall density of benthic invertebrates (Helfman, 1981; Glasby, 1999; Struck et al., 2004; Stutes et al., 2006)

Current shading due to over-water structures in the Project area can be attributed to the existing unusable marina in Clinton Basin, which spans approximately 28,150 square feet. Following installation of the proposed marina expansion (which would include removal of the existing marina in Clinton Basin), the area of shading by over-water structures would increase by approximately 86,225 square feet, for a total area of approximately 114,375 square feet.

Within the footprint of the marina expansion, the severity of impacts listed above would be minor. The existing onsite benthic habitat is generally of poor quality given its adjacency to an extended history of heavy industrial activity. Sensitive natural communities, such as eelgrass beds, have not been documented to be present within the project footprint of the marina expansion and therefore would likely not be impacted by this small amount of increased shading. (See the discussion under BIO-3 for additional information regarding the potential for eelgrass even though it has not been documented.)

However, as it relates to the quality of fish foraging habitat, there is likely to be an impact to the benthic community as rates of primary production and overall invertebrate richness would likely decline within the small area of shading due to the long-term shading effects described above. The relatively small size of the proposed overwaters structure, coupled with the already reduced quality of benthic habitat within the Project footprint after years of industrial activity, would

result in a negligible change from the existing conditions and have a very limited effect on listed marine species. As such, any impacts to the aquatic environment from increased shadow would be less than significant.

In addition to shading impacts, there will be a small loss in benthic and pelagic habitat within the footprint of the support piles. Using the pile specifications shown in Table IV.1-2, the loss of benthic habitat within the footprint of support piles is estimated to be approximately 240 square feet. This loss in habitat is expected to have a negligible impact on aquatic species due to the availability of adjacent habitats of similar quality and structure. The availability of adjacent benthic and pelagic habitat would ensure that marine species would rapidly recolonize the disturbed seafloor environment. Additionally, very few aquatic species are expected to be impacted by the small amounts of permanent fill due to the low quality of the habitat being impacted. The low quality habitat within Clinton Basin is the result of a long history of industrial and commercial land use which has contaminated much of the benthic sediments (see Section IV.H, *Hazards and Hazardous Materials*). With the availability of adjacent undisturbed benthic habitat relative to the area of impact and the short duration of activity at a given location, impacts on the aquatic community, including special status species, from fill placement are expected to be negligible.

The marina expansion component of the Project Modifications will also increase the amount of lighting required, however, no change in impact or conclusion would result from this expansion. As with the 2009 EIR, all marina lighting would consist of low-height, low-intensity light-emitting diode lamps, and would project downward. Thus, impacts from lighting would remain less than significant.

The Project Modifications would result in an increase in small, recreational vessel activity relative to the Approved Project. An increase in marine traffic could result in an increased risk of turbidity impacts from vessel wake. However, this is unlikely to cause a significant impact on aquatic species given the small size of the vessels involved. Additionally, all vessels would operate at low speeds within and adjacent to the marina, further reducing the potential for sediment resuspension. Thus, given the naturally turbid conditions of San Francisco Bay, any vessel operation impacts on aquatic species would be less than significant.

Mitigation: Mitigation Measure BIO-2.

Significance after Mitigation: Less Than Significant.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The Project Modifications would result in the same less-than-significant impact identified for the Approved Project in the 2009 EIR. Light and shadow impacts were discussed in the 2009 EIR (Impact I.6), and the conclusion was a less-than-significant impact. Additionally, as described above, the small loss of benthic and pelagic habitat as a result of pile placement is expected to result in negligible impacts on aquatic species. The Project Modifications would result in a new, significant and mitigatable impact not identified for the Approved Project in the 2009 EIR. Construction impacts on fish and marine mammals were discussed in the 2009 EIR under Impact I.1 (*less than significant*). The conclusion regarding construction impacts on aquatic species has been updated to incorporate a new pile-driving mitigation measure to address the expansion in marina footprint

and updated marine mammal noise regulations. With the incorporation of new Mitigation Measure BIO-2, impacts from construction of the Project Modifications on special-status aquatic species are expected to be less than significant. Additionally, Project Modifications include a reduced dredging component, which reduces the potential for impact on aquatic species. Thus, with mitigation, the Project Modifications would result in substantially the same conclusions identified for the Approved Project in the 2009 EIR. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Impacts on Sensitive Natural Communities

Impact BIO-3 Construction activities required for the Project Modifications would not result in 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, U.S. Fish and Wildlife Service, or National Marine Fisheries Service. (Criterion B) (*Less than Significant with Mitigation*)

Construction-Related Impacts

Within San Francisco Bay, eelgrass beds (*Zostera marina*) are designated an essential fish habitat, habitat area of particular concern for various federally-managed fish species within the Pacific Coast Groundfish Fishery Management Plan. A habitat area of particular concern, as defined under the Magnuson-Stevens Fishery Conservation and Management Act, is a subset of essential fish habitat that is rare, particularly susceptible to human-induced degradation, especially ecologically important, and/or located in an environmentally stressed area.

Comprehensive eelgrass surveys of the San Francisco Bay-Delta have been conducted in 1987, 2003, 2009, and 2014. The 1987 survey reported a total of 316 acres of eelgrass beds in San Francisco Bay-Delta (Merkel & Associates, 2014). The 2009 and 2014 surveys, which employed both high resolution acoustic mapping and helicopter aerial imagery, reported 3,707 and 2,790 acres of eelgrass beds, respectively present in San Francisco Bay-Delta (Merkel & Associates, 2014). Eelgrass beds are found throughout Oakland-Alameda Estuary in scattered patches within the Oakland Inner Harbor to the north of the Project Site. Additionally, one of the largest, continuous eelgrass beds within San Francisco Bay is just offshore of the Alameda South Shore Beach on the San Francisco Bay-side of Alameda Island.

One small patch of eelgrass was documented in the 2003 and 2014 surveys just off the northern tip of Coast Guard Island, south of the Project site (Merkel & Associates, 2014). While not mapped in 2014 within boundaries of the proposed marina expansion, it is possible that this eelgrass footprint has expanded since last observed. It is important to note that the San Francisco Bay Ecological Limits, Viability, and Sustainability predictive model for potential eelgrass habitat did not designate the Project Site as having the potential to support eelgrass beds and it is likely that the existing bathymetry and substrate conditions are not conducive to eelgrass

establishment (Merkel & Associates, 2014) Therefore, it is unlikely that the construction of the proposed marina will prevent the establishment of eelgrass in suitable habitat.

If eelgrass were to be present direct impacts could result from temporary water quality impairment as a result of in-water work. In-water construction activities that cause contact with the seafloor may increase turbidity and, potentially, release harmful chemicals sequestered in the substrate. Increased turbidity may impair the photosynthetic efficiency of eelgrass, stunting physical growth. Turbidity increases may also depress dissolved oxygen levels; elevate temperatures, and lower pH, all of which would be problematic to eelgrass health. The settling of particulates in turbid water may smother eelgrass rhizomes and inhibit growth of smaller, vegetative bodies. Increases in over-water shading could also prevent the establishment of eelgrass within the impacted footprint. Additionally, large amounts of sedimentation may raise the existing mudflat elevation, increasing the exposure of eelgrass to open air and sunlight during low tides, resulting in desiccation.

Given the uncertainty in predicative modeling and the possibility that the eelgrass footprint has expanded since last observed, in-water construction associated with the Project Modifications could result in a significant impact with respect to eelgrass habitat. The 2014 eelgrass documentation described above occurred since preparation of the 2009 EIR, thus impacts to eelgrass were not addressed within that document. Additionally, as described below, new state and federal guidance has been developed governing impacts to eelgrass habitat.

In 2014, NMFS developed *California Eelgrass Mitigation Policy and Implementation Guidelines*, to ensure no net loss of eelgrass habitat function occurs within California. Contained within that document are guidelines for pre-project surveys, avoidance and minimization measures to implement during construction, and mitigation options for unavoidable impacts to eelgrass habitat (NMFS, 2014). Consistent with the 2014 *California Eelgrass Mitigation Policy and Implementation Guidelines*, the following mitigation measure is included to ensure construction impacts on eelgrass habitats are less than significant.

Mitigation Measure BIO-3: Eelgrass Surveys.

Prior to the start of any in-water construction, the Project Applicant shall conduct a National Marine Fisheries Service-approved eelgrass survey in the marina expansion area consistent with the measures described in the National Marine Fisheries Service's October 2014 *California Eelgrass Mitigation Policy and Implementation Guidelines* (2014 CEMP) and include the following:

- Before in-water construction activities may occur within the marine environment, eelgrass surveys shall be conducted within the construction footprint in the marina expansion area consistent within the methods outlined within CEMP guidance (NFMS, 2014).
- If eelgrass beds are observed adjacent to the construction footprint in the marina expansion area, but direct impact is avoidable during construction activities, the avoidance and minimization activities outlined in CEMP guidance shall be implemented during all in-water construction work (NFMS, 2014).
- If it is determined that direct impact to eelgrass is unavoidable during construction activities in the marina expansion area, appropriate mitigation consistent with NMFS

2014 Guidance, and commensurate with the level of impact expected, shall be implemented (NFMS, 2014).

Operation-Related Impacts

The Project Modifications would result in an increase in small, recreational vessel activity relative to the Approved Project. However, it is not expected that this small increase in vessel traffic would significantly impact existing eelgrass habitat. As discussed above under Impact I.A, increases in small vessel activity are expected to generate only minor increases in turbidity, below a threshold of concern for aquatic species. Additionally, most vessel activity will be confined to transit between the marina and San Francisco Bay, and utilize the mid-channel portion of the Oakland-Alameda Inner Harbor. Much of the mid-channel habitat within the Oakland-Alameda harbor exists at a greater depth than typically supports eelgrass (NFMS, 2014). As such impacts from project operation on eelgrass habitat is expected to be less than significant.

Mitigation: Mitigation Measure BIO-3.

Significance after Mitigation: Less than Significant.

No New Significant Environmental Impacts in comparison to the 2009 EIR: As with the Approved Project, the Project Modifications would result in a less-than-significant impact on sensitive natural communities. The 2009 EIR did not analyze potential project impacts on eelgrass, in part because the previous location of the Approved Project marina did not overlap with existing eelgrass habitat. Under the Project Modifications, the new location of the marina increases the risk of impact to eelgrass beds from installation of in-water structures and is therefore considered potentially significant without mitigation. While the risk of impact remains low, incorporation of the Mitigation Measure BIO-3 would ensure potential impacts from installation of in-water structures on eelgrass habitat would be less than significant. Impacts on aquatic species from the light increase in vessel traffic would be less than significant as novel vessel traffic is expected to be comprised of small vessels, operating at low speeds, with limited potential to generate harmful turbidity impacts. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Impacts on Waters of the U.S.

Impact BIO-4: Project Modifications would not result in a substantial adverse effect on potentially jurisdictional wetlands or waters of the U.S. under the jurisdiction of the U.S. Army Corps of Engineers (USACE), waters of the state under the jurisdiction of the Regional Water Quality Control Board (RWQCB), and wetlands under the jurisdiction of BCDC. (Criterion C) (*Less than Significant with Mitigation*)

Construction of the marina expansion component of the Project Modifications would result in the permanent fill of jurisdictional waters, temporary disturbance of wetland and channel habitat,

increases in over-water shading, and temporary impacts to water quality during in-water work (pile driving). Fill of jurisdictional waters would occur as a result of the in-water placement of support piles. Impacts from increases in overwater shading and fill placement in the form of support piles on jurisdictional waters are expected to be minor. As discussed in detail above (see Operations-Related Impacts discussion under *Impact BIO-2*), only a small amount of permanent fill is proposed under Project Modifications, all of which is set to occur in aquatic habitat of limited quality to aquatic species. Additionally, the accidental spill of hazardous materials during construction could result in impacts to waters of the U.S. With the exception of required dredging activities which are reduced as a result of Project Modifications, these potential impacts are unchanged from those analyzed for the Approved Project in the 2009 EIR.

Dredging impacts will be significantly reduced from the 20,000 cubic yards estimated for removal in the 2009 EIR. The marina expansion component of the Project Modifications would shift marina construction away from the north side of Clinton Basin, which contains a lot of sediment, much of which is contaminated and thereby reduce the need for dredging contaminated sediment. Instead the Project Modifications would redevelop only the southern portion of Clinton Basin, which does not require dredging. Additionally, it is not anticipated that the Project would result in impacts to wetland habitat, however, to ensure no impact occurs a Corps-verified wetland delineation will be conducted prior to construction and in compliance with 2009 Mitigation Measure I.2a. Therefore, 2009 Mitigation Measures I.2a, I.2b, I.2c, I.2d, and I.2e requiring an updated wetland delineation and associated wetland avoidance, best management practices, and agency permits; remain relevant and adequate for the Approved Project and Project Modifications.

2009 Mitigation Measure I.2a: Corps-Verified Wetland Delineation. A preliminary identification of potentially jurisdictional areas was conducted in 2004 (LSA, 2004), and the project sponsor submitted the draft potentially jurisdictional wetland delineation to the Corps in July 2005. The project sponsor shall obtain Corps verification of the preliminary identification of jurisdictional areas prior to submitting permit applications. A verified wetland delineation would be required prior to the submittal of regulatory permit applications.

2009 Mitigation Measure I.2b: Wetland Avoidance. Section 404 first requires that projects avoid or minimize adverse effects on jurisdictional waters to the extent practicable. To the extent feasible, the final project design shall minimize effects on wetlands and other waters in accordance with Section 404 of the Clean Water Act. Areas that are avoided shall be subject to Best Management Practices (BMPs), as described in Mitigation Measure I.2.d below. Such measures shall include installation of silt fencing, straw wattles, or other appropriate erosion and sediment control methods or devices. Equipment used for the removal of debris and concrete riprap along the estuary edge will be operated from land using backhoes and cranes. Construction operations along Clinton Basin and Shoreline Park shall be barge-mounted or shall involve water-based equipment such as scows, derrick barges, and tugs.

Additionally, the existing restoration project at the southwest end of Clinton Basin, implemented by the Port of Oakland, shall be protected during construction activities. The extent of this area shall be clearly marked by a qualified biologist prior to the start of any grading or construction activities and a buffer zone established. All construction

personnel working in the vicinity of the restoration area shall be informed of its location and buffer zone.

2009 Mitigation Measure I.2c: Obtain Regulatory Permits and other Agency

Approvals. Prior to the start of construction activities for the project, the project applicant shall obtain all required permit approvals from the Corps, the RWQCB, BCDC, and all other agencies with permitting responsibilities for construction activities within jurisdictional waters of other jurisdiction areas. Permit approvals and certifications shall include but not be limited to Section 404/Section 10 permits from the Corps, Section 401 Water Quality Certification from the RWQCB, and BCDC permit.

Section 404/Section 10 Permits. Permit approval from the Corps shall be obtained for the placement of dredge or fill material in waters of the U.S., if any, within the interior of the project site, pursuant to Section 404 of the federal Clean Water Act.

Construction along the estuary edge below MHW elevation will be considered dredging by the Corps and will require a Section 10 permit. In addition, dredging of Clinton Basin will also require a Section 10 permit.

Section 401 Water Quality Certification. Approval of Water Quality Certification (WQC) and/or Waste Discharge Requirements (WDRs) shall be obtained from the RWQCB for work within jurisdictional waters. Preparation of the Section 401 Water Quality Certification applications will require an application and supporting materials including construction techniques, areas of impact, and project schedule.

BCDC Permit. Permit approval from BCDC shall be obtained for placement of solid material, pilings, floating structures, boat docks, or other fill in the Bay, and/or dredging or other extraction of material from the Bay and within the 100-foot shoreline band inland from mean high tide line along the length of the project site. Project activities subject to this permit approval would include dredging for rebuilding the marina in Clinton Basin and replacement of the 5th Avenue Marina with a new marina that would contain approximately 170 boat slips. The proposed project would include the removal of approximately 33,780 square feet of solid Bay fill as part of the shoreline design and the placement of 74,110 square feet of solid Bay fill for the creation of a village green at Clinton Basin. The project would also include the removal of approximately 129,920 square feet of pile-supported fill with the removal of a portion of the Ninth Avenue Terminal wharf. Additionally, floating fill would be required to create the two proposed marinas.

The project would be required to comply with all BCDC permit conditions, which typically include requirements to construct, guarantee, and maintain public access to the Bay; specified construction methods to assure safety or to protect water quality; and mitigation requirements to offset the adverse environmental impacts of the project.

2009 Mitigation Measure I.2d: Best Management Practices (BMPs). The project applicant shall implement standard BMPs to maintain water quality and control erosion and sedimentation during construction, as required by compliance with the General National Pollution Discharge Elimination System (NPDES) Permit for Construction Activities and established by Mitigation Measure D.1 to address impacts on water quality. Mitigation measures would include, but would not be limited to, installing silt fencing along the edges of the project site to protect estuarine waters, locating fueling

stations away from potential jurisdictional features, and isolating construction work areas from the identified jurisdictional features. The project applicant shall also implement BMPs to avoid impacts on water quality resulting from dredging activities within the Bay, as identified in the *Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region (LTMS)* (Corps, 2001). These BMPs include silt fencing and gunderbooms or other appropriate methods for keeping dredged materials from leaving the project site.

2009 Mitigation Measure I.2e: *Compensatory Mitigation.* The project applicant shall provide compensatory mitigation for temporary impacts to, and permanent loss of, waters of the U.S., including wetlands, as required by regulatory permits issued by the Corps, RWQCB, and BCDC. Measures shall include but not be limited to 1) onsite mitigation through wetland creation or enhancement, 2) development of a Mitigation and Monitoring Plan, and 3) additional wetland creation or enhancement or offsite mitigation.

Onsite Mitigation through Wetland Creation or Enhancement. The project applicant shall further enhance the shoreline from Lake Merritt Channel to Clinton Basin. The primary objective of the enhancement shall be to improve the habitat value for shorebirds, gulls, ducks, and other avian life that frequent the area. Components of the restoration plan shall include 1) restoration of the tidal marsh, 2) enhancement of roosting areas for shorebirds and water birds, and 3) increase in habitat diversity. Shoreline enhancements shall include removal of debris, including concrete riprap, and excavation of the shoreline at Channel Park to create marsh vegetation along this area. Excavation shall provide a shoreline slope that falls between the MTL elevation (approximately -2.4 mean sea level) to the MHW”) to allow for the colonization of marsh habitat and the creation of high marsh habitat.

Mitigation and Monitoring Program. Prior to the start of construction or in coordination with regulatory permit conditions, the project applicant shall prepare and submit for approval to the Corps, RWQCB, BCDC and CDFG a mitigation and monitoring program that outlines the mitigation obligations for temporary and permanent impacts to waters of the U.S., including wetlands, identified in this EIR. The program shall include baseline information from existing conditions, anticipated habitat to be enhanced, thresholds of success, monitoring and reporting requirements, and site-specific plans to compensate for wetland losses resulting from the project. The Oak to Ninth Project Mitigation and Monitoring Plan shall include, but not be limited to, the following:

- Clearly stated objectives and goals consistent with regional habitat goals.
- Location, size, and type of mitigation wetlands proposed.
- A functional assessment of affected jurisdictional waters to ensure that the EPA’s “no net loss of wetland value” standard is met. The functional assessment shall also ensure that the mitigation provided is commensurate with the adverse impacts on Bay resources in accordance with BCDC mitigation policies. The assessment will provide sufficient technical detail in the project design including, at a minimum, an engineered grading plan and water control structures, methods for conserving or stockpiling topsoil, a planting program including removal of exotic species, a list of all species to be planted, sources of seeds and/or plants, timing of planting, plant locations and elevations on the mitigation site base map, and maintenance techniques.

- Documentation of performance, monitoring, and adaptive management standards that provide a mechanism for making adjustments to the mitigation site. Performance and monitoring standards shall indicate success criteria to be met within 5 years for vegetation, animal use, removal of exotic species, and hydrology. Adaptive management standards shall include contingency measures that shall outline clear steps to be taken if and when it is determined, through monitoring or other means, that the enhancement or restoration techniques are not meeting success criteria.
- Documentation of the necessary long-term management and maintenance requirements, and provisions for sufficient funding.

Additional Wetland Creation or Enhancement or Offsite Mitigation. If permanent and temporary impacts on jurisdictional waters cannot be compensated for onsite through the restoration of wetland features incorporated within proposed open space and park areas, the project applicant shall negotiate additional compensatory mitigation for these losses with the applicable regulatory agencies. Potential options include the creation of additional wetland acreage onsite or the purchase of offsite mitigation.

Mitigation: 2009 Mitigation Measures I.2a, I.2b, I.2c, I.2d, I.2e.

Significance after Mitigation: Less Than Significant.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The Project Modifications would result in the same or reduced (due to reduced dredging) less-than-significant with mitigation impact identified for the Approved Project in the 2009 EIR. Construction impacts on jurisdictional wetlands or waters of the U.S. were discussed in the 2009 EIR (Impact I.2), and the impact conclusion was a *less-than-significant with mitigation* (2009 Mitigation Measure I.2a: Corps-Verified Wetland Delineation, 2009 Mitigation Measure I.2b: Wetland Avoidance, 2009 Mitigation Measure I.2c: Obtain Regulatory Permits and other Agency Approvals, 2009 Mitigation Measure I.2d: Best Management Practices, and 2009 Mitigation Measure I.2e: Compensatory Mitigation). Adherence to these measures would reduce the potential impacts from construction of the Project Modifications to a less than significant level. Thus, with mitigation, the Project Modifications would result in substantially the same conclusions identified for the Approved Project in the 2009 EIR. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Impacts on Migratory Wildlife Corridors

Impact BIO-5: The Project Modifications would not substantially 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. (Criterion D) (*Less than Significant with Mitigation*)

Central San Francisco Bay serves as a migration corridor for special-status anadromous fish between the Pacific Ocean and spawning habitat, primarily within the Sacramento and San

Joaquin River watersheds, but also in a handful of tributaries to San Francisco Bay. Those that use the San Francisco Bay as a migration corridor to the Central Valley watersheds rarely stray south of the San Francisco-Bay Bridge. As such, usage of the Oakland-Alameda Inner Harbor by special-status aquatic species as a migration corridor is unlikely. If special-status anadromous fish species were to occur within the vicinity of the Project Site their presence would only be temporary, as they move between spawning habitat and the Pacific Ocean, and would likely occur outside the in-water work window described in 2009 Mitigation Measure I.3.

Migratory bird species that pass through the Project Site include waterfowl, shorebirds, pelicans and songbirds. These birds have numerous options for stopover habitat during migration through the San Francisco Bay Area, and would not be substantially impacted by the temporary loss of Project Site stopovers.

Thus, while Project Modifications would change the location and increase the footprint of the proposed marina, they would not result in an additional impact to migratory wildlife corridors. Pile driving and construction in general may result in the exclusion of aquatic species from the Project site due to in-water construction and potentially from minor increases in underwater noise. However, these impacts will be temporary and ultimately have no impact on aquatic migration corridors.

Additionally, dredging impacts will be significantly reduced from the 20,000 cubic yards estimated for removal in the 2009 EIR. The marina expansion component of the Project Modifications would shift marina construction away from the north side of Clinton Basin, which contains a lot of sediment, much of which is contaminated and thereby reduce the need for dredging contaminated sediment. Instead the Project Modifications would redevelop only the southern portion of Clinton Basin, which does not require dredging. The reduction of dredging should further reduce the potential for impact on aquatic migratory corridors. Therefore, **2009 Mitigation Measure I.3** remains relevant and adequate for the Approved Project and Project Modifications.

2009 Mitigation Measure I.3: *Protection of Fish and Migrating Salmonids.* The project applicant shall implement measures for protection of salmonids and Pacific herring during dredging projects and for indirect impacts on the San Francisco Bay “Essential Fish Habitat” (EFH) that are identified in the *Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region* (LTMS) (Corps, 2001).

The Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region (LTMS) (Corps, 2001) identifies specific work windows and Best Management Practices (BMPs) to protect salmonids and Pacific herring during dredging projects and to reduce indirect impacts to the San Francisco Bay EFH. The LTMS was developed during formal consultation among the NMFS, USFWS, and CDFG to address impacts on sensitive fisheries and designated critical habitats under their respective jurisdictions and to standardize mitigation for dredging projects. The Biological Opinion (BO) resulting from the LTMS presents specific restrictions on the timing and design of dredging and disposal projects. As the LTMS states, if the dredging project can be accomplished during the identified work windows, the project is authorized for incidental take under the federal Endangered Species Act of 1973, as amended. The LTMS serves as the federal and state pathway for determining potential impacts of dredging and dredge

disposal projects on fish species, with timing of construction as the single significance criterion.

As identified in the LTMS, restricting dredging and other in-water construction activities to the specified work periods would avoid the direct and indirect impacts on juvenile or adult herring or salmonids that would otherwise result from dredging-related increases in turbidity or changes in water quality. Impacts of dredging operations on coho salmon, Chinook salmon, steelhead, and Pacific herring would therefore be less than significant, provided that dredging activities are conducted within the work windows identified in the LTMS. For waters in central San Francisco Bay, the construction work window for dredging activities in Pacific herring habitat is between March 1 and November 30 (Corps, 2001). The dredging work window for salmonid species in central San Francisco Bay is June 1 through November 30. These work windows are summarized in the table below.

**2009 MITIGATION MEASURE I.3 TABLE
 CONSTRUCTION WORK WINDOWS FOR IN-WATER PILE-DRIVING AND OTHER IN-WATER ACTIVITIES**

Fish Species	Work Activity	Construction Work Windows for Project Activities, by Month											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Pacific herring	Pile-driving						W	W	W	W	W	(W)	
	Other In-Water Activities			W	W	W	W	W	W	W	W	W	
Chinook salmon	Pile-driving						W	W	W	W	W	(W)	
	Other In-Water Activities						W	W	W	W	W	W	
Steelhead	Pile-driving						W	W	W	W	W	(W)	
	Other In-Water Activities						W	W	W	W	W	W	

“W” indicates work window when the identified construction activities will minimize impacts to fisheries, in accordance with specific guidance provided by the LTMS (Corps, 2001) for dredging and dredge disposal related activities.

“(W)” indicates possible work window. Frank Filice with the San Francisco Department of Public Works indicated that a letter from NMFS (on another project) established a June 1 to November 30 work window for pile-driving activities (Filice, personal communication). The actual project construction work window will be determined by the Corps in consultation with NMFS during the permitting phase of the project.

Implementation of BMPs and adherence to construction timing as outlined in the LTMS would reduce impacts on special-status fish species. As feasible, BMPs, including silt curtains and gunderbooms, shall be implemented to isolate the work area and prevent silt and sediment from entering the estuary.

Potential impacts resulting from pile-driving activities in the estuary would be avoided or reduced to a less-than-significant level by either avoiding pile-driving activities between November 1 and June 1 or assuring that pile-driving would result in noise levels below 150 decibels at 10 meters. Proposed construction work windows for pile-driving activities are also presented in the table below. Any pile-driving work occurring outside of these work windows would be conducted in accordance with NMFS directives and Corps permits to reduce potential impacts on fish species.

The quantity of in-water features (such as pilings and pier structures) under the proposed project would be comparable to existing conditions, therefore an increase in the number

of predatory fish is not expected. Similarly, the composition of fish species using the shallow-water aquatic habitats is not expected to change following project implementation.

Mitigation: 2009 Mitigation Measure I.3.

Significance after Mitigation: Less than Significant.

No New Significant Environmental Impacts in comparison to the 2009 EIR: Potential impacts to migratory wildlife corridors and fisheries resources plans were discussed in the 2009 EIR (Impact I.3), and the impact was determined to be *less than significant with mitigation* (2009 Mitigation Measure I.3, Protection of Fish and Migrating Salmonids). The conclusion for the Project Modifications is the same as identified in the 2009 EIR. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Habitat Conservation Plans

Impact BIO-6: The Project Modifications would not fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan. (Criterion E) (*Less than Significant with Mitigation*)

No adopted habitat conservation plan or natural community conservation plan covers the Project site’s terrestrial or marine areas. However, the Clinton Basin Wetland Restoration and Enhancement Project, previously implemented by the Port of Oakland, exists at the southwest edge of the mouth of Clinton Basin. As discussed above, 2009 Mitigation Measure I.2b, Wetland Avoidance, would apply to the Project Modifications and would reduce any potential conflict with the Clinton Basin Wetland Restoration and Enhancement Project to a less than significant level.

Mitigation: 2009 Mitigation Measure I.2b.

Significance after Mitigation: Less than Significant.

No New Significant Environmental Impacts in comparison to the 2009 EIR: Potential conflicts with applicable habitat or natural community conservation plans were discussed in the 2009 EIR (Impact A.4), and the impact was determined to be *less than significant with mitigation* (2009 Mitigation Measure I.2b, Wetland Avoidance). The conclusion for the Project Modifications is the same as identified in the 2009 EIR and will remain less than significant with the incorporation of these measures. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Tree Preservation and Removal

Impact BIO-7: The Project Modifications would not fundamentally conflict with the City of Oakland Tree Protection Ordinance or Creek Protection Ordinance. (Criteria F and G) (Less than Significant)

Although the Project Modifications would potentially change the location of one tower potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV, no change is proposed to the number of the Approved Project towers. The Project Modifications would occur within the same overall building envelopes as the Approved Project. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project, and as such there would be no increase or change in removal of protected trees. Consequently, construction-related impacts of the Project Modifications related to the City of Oakland Tree Protection Ordinance and Creek Protection Ordinance are not reevaluated herein.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: Tree removal and preservation impacts related to the Approved Project were discussed in the 2009 EIR Biology section under subsection *Less-than-Significant and Beneficial Impacts* as well as in Impacts I.2 and I.7 where the impact was determined to be less than significant. The conclusion for the Project Modifications regarding potential impacts to trees is the same as identified in the 2009 EIR. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Cumulative Impacts

Cumulative Context

The cumulative context used for the assessment of cumulative biological resources impacts consists of the areas of Lake Merritt and Lake Merritt Channel, the Oakland Estuary, and central San Francisco Bay. This geographical context remains unchanged from the 2009 EIR.

Cumulative Impacts on Biological Resources

Impact BIO-8: The Project Modifications, in conjunction with other foreseeable development in the City and along its shoreline, would not result in impacts on wetlands, other waters of the U.S., and special-status species. (Less than Significant with Mitigation)

Assuming concurrent implementation of the Project Modifications, the Approved Project, along with other reasonably foreseeable future projects in the vicinity, adverse cumulative effects on biological resources could include construction impacts on wetlands, other waters of the U.S., and

special-status species. The Modified Project and other future projects in the area would be required to comply with local, state, and federal laws and policies and all applicable permitting requirements of the regulatory and oversight agencies intended to address potential impacts on biological resources including wetlands, other waters of the U.S., and special-status species. Additionally, cumulative projects have been required, and would be required to demonstrate that they would not have significant effects on these biological resources. Therefore, the effect of the Project Modifications on biological resources, in combination with other foreseeable projects, would be less than significant.

Mitigation: 2009 Mitigation Measures I.2a, I.2b, I.2c, I.2d, I.2e, and I.3, Mitigation Measure BIO-2, BIO-3.

Significance after Mitigation: Less Than Significant.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The Project Modifications would result in substantially the same less-than-significant impact as identified for the Approved Project in the 2009 EIR (Impact I.8). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

IV.I.4 References

- Buchanan, P.A., and Morgan, T.L., 2010, Summary of Suspended-Sediment Concentration Data, San Francisco Bay, California, Water Year 2007: U.S. Geological Survey Data Series 476, 30 p.
- California Department of Transportation (Caltrans), 2015. *Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish. Final Report, prepared for California Department of Transportation by ICF Jones & Stokes and Illingworth & Rodkin, Inc.*, 2015.
- City of Oakland, 2016. *CEQA Thresholds of Significance Guidelines*. October 17, 2016.
- Dalen, J. and G.M. Knutsen. 1986. *Scaring Effects of Fish and Harmful Effects on Eggs, Larvae and Fry from Offshore Seismic Explorations, ICA Associated Symposium on Underwater Acoustics*, 16-18 July 1986, Halifax, Canada.
- Glasby, T.M, 1999. *Effects of Shading on Subtidal Epibiotic Assemblages. Journal of Experimental Marine Biology and Ecology*, 234: 275-290.
- Halvorsen MB, Casper BM, Woodley CM, Carlson TJ, Popper AN. 2012. *Threshold for onset of injury in Chinook salmon from exposure to impulsive pile driving sounds*, PLOS ONE 7(6): e38968. OI: 10.1371/journal.pone.0038968, 2012.
- Helfman, G.S. 1981. *The Advantage of Fishes of Hovering in Shade*. Copeia 2: 392-400.

- Merkel & Associates, 2014. *San Francisco Bay Eelgrass Inventory; October-November 2014*, prepared for the California Department of Transportation and NOAA National Marine Fisheries Service, November 2014.
- National Marine Fisheries Service (NMFS), 2014. *California Eelgrass Mitigation Policy and Implementation Guidelines*. October 2014.
- National Oceanic and Atmospheric Administration (NOAA), 2018. *Technical Memorandum NMFS-OPR-55, Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing: Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts*.
- Struck, S.D., C.B. Craft, S.W. Broome, M.D. Sanclements, and J.N. Sacco, 2004. *Effects of bridge shading on estuarine marsh benthic community structure and function. Environmental Management, 34: 99-111.*
- Stutes, A.L., J. Cebrian, and A.A. Corcoran, 2006. *Effects of Nutrient Enrichment and Shading on Sediment Primary Production and Metabolism in Eutrophic Estuaries. Marine Ecology Progress Series, 312:29-43.*

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IV.J Population and Housing

This section presents an analysis of potential impacts related to population and housing that would result from the Project Modifications described in Chapter III, *Project Description*. The affected environment, regulatory setting, and analysis from the 2009 EIR are relied on to the extent relevant in this Supplemental EIR (SEIR) and are discussed to the extent that they differ from those described in the 2009 EIR. This section analyzes the direct, indirect, and cumulative effects of the Project Modifications and compares them to the conclusions of the 2009 EIR; provides modifications (additions, deletions, updates, or other revisions), as needed, to the approved mitigation measures provided in the adopted Final EIR MMRP; and identifies any residual effects that may remain following the implementation of such measures.

IV.J.1 Environmental Setting

Project Site

Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would be developed on the same Project site as the Approved Project and the environmental setting of the site is described in the 2009 EIR. As described in Chapter III, *Project Description*, since preparation of the 2009 EIR, there has been substantial and on-going construction of the Approved Project. At the time of the NOP (September 2018), Phase I on-and off-site improvements were constructed. In addition, Phase I park and open space improvements and development on Parcel B were under construction. Final Development Permits (FDPs) for Affordable Housing on Parcels F and A, FDPs for Parcels C and G, and an FDP for Phase II through IV park and open space improvements had been approved. These changes to the Project site are considered a part of the existing conditions and environmental baseline for this SEIR analysis. Although construction of Phases I and II was underway, there was no existing housing or residential population located on the Project site at the date of the NOP for this SEIR (September 21, 2018). Since publication of the NOP, additional FDPs for Phase I and II parcels have been submitted and development proposals for all sites within those phases are either under review, approved, under construction, or operational (see Chapter III, *Project Description*).

At the time of the 2009 EIR preparation, there were approximately 21 tenants onsite, which held leases with the Port of Oakland and employed approximately 231 individuals in primarily industrial and marine related support uses (City of Oakland, 2005). As of the date of the NOP for this SEIR, the site was vacant and these tenants no longer occupied the Project site. As described in the 2009 EIR, there are two privately owned parcels in the middle of the Oak to Ninth District and surrounded by the Project site. These privately-owned parcels remain occupied by a mix of uses including artist studios, artisan workshops, small businesses, and some residences (KQED, 2013; City of Oakland, 2005).

Neighborhoods surrounding the Project site include the Oak to Ninth Avenue District, portions of the Estuary waterfront, Downtown Oakland, and San Antonio. Detailed demographic information

is provided for each of these neighborhoods in the 2009 EIR. Changes in demographics related to population and housing in Oakland and the Bay Area region since preparation of the 2009 EIR are described below.

Population

Since preparation of the 2009 EIR, demographics within the City of Oakland have changed reflecting demographic trends occurring within the entire Bay Area region (the region). Although population within the City of Oakland declined slightly from 2000 to 2010, since 2010 the latest tech boom has resulted in population growth. Since the end of the Great Recession in 2009, sustained economic growth has led to continual increases in population in the City of Oakland as well as in the region (MTC and ABAG, 2017a). Historical population data and population projections for the City of Oakland and the region are reported in **Table IV.J-1**. As demonstrated in the table, from 2010 to 2018, the City has experienced an annual population increase of approximately 1.2 percent (Department of Finance 2007, and 2018). As of the date of the NOP, there were approximately 428,827 people living in Oakland, which accounts for approximately six percent of the total population of the nine-county Bay Area (Department of Finance, 2019). As reflected in Table IV.J-1, historically, the Bay Area region experienced a faster rate of growth than the City of Oakland. However, recently this trend has been reversed as population growth in the City has been greater than that of the region. While the region is projected to experience a 1.07 percent annual growth through 2040, the City of Oakland is projected to experience approximately 2.35 percent population growth (MTC and ABAG, 2017b).

**TABLE IV.J-1
 TRENDS IN POPULATION GROWTH FOR THE CITY OF OAKLAND AND BAY AREA REGION (1990-2040)**

Year	City of Oakland			Bay Area Region		
	Population	Population Growth ^a	Avg. Annual Percent Growth ^b	Population	Population Growth ^b	Avg. Annual Percent Growth ^c
1990	372,242	-	-	6,020,147	-	-
2000	398,247	26,005	0.70%	6,757,390	737,243	1.22%
2010	390,724	-7,523	-0.19%	7,150,739	393,349	0.58%
2018	428,827	38,103	1.22%	7,772,586	621,847	1.09%
2040 ^a	650,630	221,803	2.35%	9,600,000	1,827,414	1.07%

NOTES:

- a "Population Growth" considers the delta between the population associated with listed "Year" row and population of that that under the prior "Year" row.
- b "Average Annual Percent Growth" is calculated by dividing the population growth value by the population of the prior comparison year to obtain the overall percent change. The overall percent change is then divided by the number of years this growth represents in order to present a comparable annual change (i.e., 1990-2000 = 10 years, 2010-2018 = 8 years, and 2018 – 2040 = 22 years). For example, population growth from 1990 to 2000 was 26,005. (26,005 population growth / 372,242 population) x 100 = 7% growth over a 10 year period. 7% overall growth / 10 years = 0.70% growth per year.

SOURCE: 1990 and 2000 data is provided by State of California, Department of Finance, 2007; 2010 and 2018 data are sourced from State of California, Department of Finance, 2019; and 2040 projected data for City of Oakland is sourced from MTC, 2018a, and for Bay Area Region is sources from MTC and ABAG, 2017b.

Housing

Historical housing data and projected housing data for the City of Oakland and the Bay Area region is depicted in **Table IV.J-2**. The Great Recession and resultant decline in population in the City of Oakland led to vacancy rates of approximately 9.4 percent in 2010. Since 2010, the increase in population in Oakland discussed in *Population*, above, led to a drop in the City’s vacancy rates and in increase in average household size. Compared to the region, Oakland generally has slightly smaller household sizes. As discussed in the Plan Bay Area 2040, the Bay Area region is experiencing a housing crisis due to the rapid increase in residents and jobs resulting from the tech boom and the regional lack of housing production. This housing crisis has led to increased housing prices, an effect that has had a particularly strong impact on lower-income households (MTC and ABAG, 2017a).

**TABLE IV.J-2
 HOUSING UNITS, HOUSEHOLDS, AND HOUSEHOLD SIZE- IN OAKLAND AND BAY AREA REGION (1990 – 2040)**

Year	Oakland				Bay Area Region			
	Total Housing Units ^a	Vacancy Rate ^b	Households ^c	Persons Per Household	Total Housing Units ^a	Vacancy Rate ^b	Households ^c	Persons Per Household
1990	154,737	6.60%	144,521	2.52	2,364,926	5.38%	2,245,865	2.59
2000	157,401	4.32%	150,594	2.60	2,547,046	3.39%	2,459,753	2.65
2010	169,710	9.40%	153,791	2.49	2,783,991	7.20%	2,606,288	2.65
2018	172,170	5.50%	162,763	2.59	2,888,882	6.40%	2,733,824	2.74
2040	-	-	241,470	-	-	-	3,430,000	2.80

NOTES:

- ^a Total housing units are provided in in this column in order to provide a comparative context with vacancy rates and the total number of households.
- ^b “Vacancy Rates” are provided by the California Department of Finance; this rate (VR) refers to the difference between total housing units (HU) and households (H) in order to identify vacant units, which are then divided by the number of housing units HU); as an equation, this is $VR = (HU-H) / HU$.
- ^c Households are defined by ABAG as an occupied residential unit.

SOURCE: 1990 and 2000 data is provided by State of California, Department of Finance, 2007; 2010 and 2018 data are sourced from State of California, Department of Finance, 2019; and 2040 projected data for the City is sourced from MTC, 2018a, and for Bay Area Region is sources from MTC and ABAG, 2017b.

IV.J.2 Regulatory Setting

Federal and State

There are no federal regulations, plans, or policies applicable to population, employment, and housing issues relevant to the Project Modifications. Since certification of the 2009 EIR, the following State regulations and policies have been updated.

California Housing Element Requirement

California law (Government Code Section 65580, et seq.) requires cities and counties to include as part of their General Plans a housing element to address housing conditions and needs in the community. Housing elements are prepared approximately every seven to eight years, following

timetables set forth in the law. The housing element must identify and analyze existing and projected housing needs and “make adequate provision for the existing and projected needs of all economic segments of the community,” among other requirements. The City’s 2015-2023 Housing Element was adopted in 2014 and identifies the potential for 17,000 additional units on housing opportunity sites in strategic areas of the city that are actively being promoted for housing development (City of Oakland, 2014a). The Project site is not included in the housing opportunity sites as shown in Figure C-5 of the Housing Element. The City of Oakland is beginning another update of its Housing Element.

Regional Housing Needs Allocation and SB 375

The Regional Housing Needs Allocation (RHNA) process is mandated by the California State Housing Element law (California Government Code sections 65580 et seq.) and is a precursor to the periodic process of updating local housing elements of the General Plan. The State determines what the total housing need will be in the region for the planning period. The Association of Bay Area Governments (ABAG) distributes that need among local jurisdictions in the Bay Area, initiating each jurisdiction’s housing element update. In the 2015-2023 RHNA (5th Cycle), ABAG determined that Oakland’s housing needs required 14,765 new housing units, approximately half of which are needed as affordable housing (ABAG, 2013).

Table IV.J-3 shows the 2015-2023 RHNA by income level for the City of Oakland and the region. Based on its allocation, the City of Oakland is required to identify sites sufficient to accommodate 14,765 new housing units at the specified levels of affordability.

**TABLE IV.J-3
 FINAL REGIONAL HOUSING NEEDS ALLOCATION 2015-2023**

Income Level ^a	Oakland	Bay Area
Very Low (50% AMI)	2,059	46,680
Low (51-80% AMI)	2,075	28,940
Moderate (81-120%AMI)	2,815	33,420
Above Moderate (+120% AMI)	7,816	78,950
Total	14,765	187,990

NOTES:

^a AMI refers to area median income

SOURCE: ABAG, 2013

ABAG is currently undertaking the process to determine the allocation of the 6th Cycle RHNA (2023–2031). A February 2021 draft indicates that Oakland likely will be allocated 26,251 units, comprised of 6,511 very-low income, 3,750 low income, 4,457 moderate income, and 11,533 above moderate-income units (ABAG, 2021). The City will need to update its Housing Element by January 2023 to show how it will accommodate its RHNA.

Plan Bay Area 2040

As required by Senate Bill 375, all metropolitan regions in California must complete a Sustainable Communities Strategy (SCS) as part of a Regional Transportation Plan. In the Bay Area, the MTC and ABAG are jointly responsible for developing and adopting a SCS that integrates transportation, land use, and housing to meet greenhouse gas reduction targets set by the California Air Resources Board. The *Plan Bay Area 2040*, adopted in 2017, serves as the SCS for the Bay Area, per Senate Bill 375; it projects household and employment growth in the Bay Area through 2040, provides a roadmap for accommodating expected growth, and connects it all to a transportation investment strategy that strives to move the Bay Area toward key regional goals for the environment, economy, and social equity. As defined by the plan, Priority Development Areas (PDAs) are areas where new development will support the needs of residents and workers in a pedestrian-friendly environment served by transit. The Project site is partially located within the “Oakland Downtown & Jack London Square” and “San Antonio & Central Estuary” PDAs. *Plan Bay Area 2040* is advisory; adherence by each jurisdiction is not compulsory.

The *Plan Bay Area 2040* predicts that approximately 87,700 additional housing units and 93,700 additional jobs will be added in Oakland between 2010 and 2040. Household growth would equate to roughly 10.7 percent of regional growth, while this job growth equates to roughly 7.32 percent of the total employment growth anticipated in the region.¹ *Plan Bay Area 2040* sets out a plan to meet most of the region’s growth in PDAs, as identified by local governments.

ABAG/MTC are currently preparing *Plan Bay Area 2050*, which will be adopted in fall 2021. According to ABAG/MTC, *Plan Bay Area 2050* will tackle four topic areas: transportation, housing, the economy, and the environment, while integrating issues of equity and resilience.

Local Plans, Ordinances and Policies

Since certification of the 2009 EIR, with the exception of the Housing Element update, there has been no change in the City General Plan or municipal code with respect to population and housing relevant to the this SEIR analysis.

Housing Element

The City has twice amended its General Plan to adopt updates to its Housing Element, which establishes the City’s overall housing policies. It certified a 2010 EIR for the 2007–2014 Housing Element, and a 2014 Addendum to the 2010 EIR for the 2015–2023 Housing Element. California State Housing Element law (California Government Code sections 65580 et seq.) requires local jurisdictions to adequately plan for and address the housing needs of all segments of its population in order to attain the region’s share of projected statewide housing goals. This law requires local

¹ Household growth in Oakland as a percentage of regional growth is calculated by considering projected growth in Oakland households (87,700) divided by the projected growth in regional households (820,000) to get 10.7 percent. Employment growth in Oakland as a percentage of regional growth in employment is calculated by taking projected growth in Oakland employment (93,700) divided by projected growth in regional employment (1,280,000) to get 7.32 percent.

governments to plan for their existing and projected housing needs by facilitating the improvement and development of housing and removing constraints on development opportunities.

In the Housing Element, the City identifies that approximately 17,000 new units could be constructed on housing opportunity sites currently identified in existing specific plans (City of Oakland, 2014a). New housing is being proposed around Oakland including in Downtown, West Oakland, East Oakland, North Oakland, and along the Estuary Waterfront, where the Project site is located. Oakland's land use policies generally promote locating housing near transit centers, higher density developments, and increasing the stock of affordable housing. To accommodate the population growth projected in the *Plan Bay Area 2040*, the region would need to provide an average increase of 31,644 households per year, which is nearly twice the construction rate between 2010 and 2018 (MTC and ABAG, 2017b).

Oakland Standard Conditions of Approval (SCAs)

The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) in 2008, and they have since been amended and revised several times.² Like other regulations, the SCAs apply to projects in the City regardless of their CEQA impacts. The SCAs are not mitigation measures and therefore are not listed as mitigation measures. If the Project Modifications are approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project Modifications. With implementation of the SCAs, some of the mitigation measures from the 2009 EIR are no longer needed, and this SEIR notes when that occurs.³ The SCA below is relevant to population and housing:

- **SCA POP-1 (SCA 72): Affordable Housing Impact Fee.** *Prior to issuance of building permit; subsequent milestones pursuant to ordinance.* The project applicant shall comply with the requirements of the City of Oakland Affordable Housing Impact Fee Ordinance (chapter 15.72 of the Oakland Municipal Code).

IV.J.3 Impacts and Mitigation Measures

Significance Criteria

The City of Oakland has established thresholds of significance for CEQA impacts which incorporate those in Appendix G of the CEQA Guidelines (City of Oakland, 2016). Based on these thresholds, the Project Modifications would have a significant impact on the environment if it would:

- A. Induce substantial population growth in a manner not contemplated in the General Plan, either directly (for example, by proposing new homes and businesses) or indirectly (for

² A revised set of SCAs was recently published by the City of Oakland in December, 2020.

³ Where SCAs replace mitigation measures for the Project Modifications, such replacement does not indicate that the Project Modifications would have new or substantially more severe environmental impacts than the Approved Project.

example, through extensions of roads or other infrastructure), such that additional infrastructure is required but the impacts of such were not previously considered or analyzed;

- B. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element; or
- C. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element.

Methodology

Consistent with CEQA guidance, the SEIR is required to evaluate only the changes in the project, circumstances, or new information that could give rise to new significant environmental impacts or substantially more severe environmental impacts than were analyzed in the 2009 EIR. As such, in accordance with CEQA Guidelines Section 15163, this SEIR contains information necessary to disclose environmental impacts from the Project Modifications that were not analyzed in the 2009 or would be substantially more severe than anticipated by the 2009 EIR. This SEIR evaluates the Project Modifications using the City's current methodology, significance criteria, and thresholds. The analysis relies on the environmental baseline, which is the physical circumstances existing at the time the NOP was published in September 2018, and also compares the Project Modification to the Approved Project to determine if the modifications create any new or substantially more severe impacts on the environment. This SEIR discusses new City requirements and analysis methods established since preparation of the 2009 EIR, such as the incorporation of the City's SCAs, which would be required conditions of approval for the Project Modifications.

Changes that have occurred to the environmental and regulatory setting since preparation of the 2009 EIR are described above. The City's CEQA Thresholds of Significance for population and housing have not changed since the preparation of the 2009 EIR. Therefore, the impact discussions and analyses below focus on the activities associated with the Project Modifications and the potential for population and housing impacts associated with those activities that were not previously disclosed in the 2009 EIR.

With respect to population growth related to housing, this analysis relies the 1.7 persons per household generation rate used in the 2009 EIR (1.63 persons per housing unit considering a four percent vacancy rate). Other nearby area plans identified similar resident ratios; the Lake Merritt Specific Plan anticipated an average of 2.0 persons per housing unit and the Coliseum Area Plan anticipated an average of 1.84 persons per housing unit (neither of which factored in vacancy rates; City of Oakland, 2013; and City of Oakland, 2014b). In closer proximity to the Project site, current (2017) data for the Jack London Square census tract demonstrates smaller generation rate (1.55 persons per housing unit) than anticipated in the 2003 Jack London EIR, which projected a rate of 1.66 persons per housing unit (U.S. Census 2017; and City of Oakland, 2003). In addition, projections used in the MTC's *Plan Bay Area 2040* for the Oakland Downtown & Jack London Square PDA estimate there will be a ratio of 1.87 persons per household (MTC, 2018b). Project Modifications would result in high-density residential development similar to that of the Jack London Square. For this reason, it is reasonable to assume the Project Modifications would have somewhat fewer persons per household than the balance of the PDA and other specific plan areas located further away from Downtown. For the purposes of a conservative analysis for population

and housing, the population estimate includes residences from live-aboard units as permitted on up to 10 percent of slips.

Population and Housing Topics Determined to Require No Further Analysis in this SEIR

The 2009 EIR analyzed the Approved Project against the following criteria that, while applicable to the CEQA analysis for the Approved Project when that EIR was prepared, is now analyzed differently by the City of Oakland.

- Have social and economic effects that result in indirect changes in the physical environment, such as in ripple effects that would lead to physical deterioration and urban decay.

The 2009 EIR analyzed the potential housing market effects of the Approved Project and whether those effects could result in indirect physical environmental impacts. The 2009 EIR also analyzed the potential indirect physical environmental effects as a result of the retail component and the potential for deterioration and urban decay. The Project Modifications would not include a retail component and thus would not result in indirect physical environmental effects as a result of retail.

The 2009 EIR concluded that although the Approved Project would have effects on housing demand in specific areas of the City, the effects were not anticipated to be substantial enough or widespread enough to significantly reduce housing options or lead to increased physical deterioration of housing or neighborhoods. Further, the development of a large amount of additional affordable housing as a result of the Approved Project would provide options to help offset any such effects. While included in the 2009 EIR for discussion purposes, it did not include a corresponding impact statement. Nonetheless, the addition of 600 residential units to the 3100 units analyzed in the 2009 EIR would not alter the potential housing market effects of the Approved Project. Implementation of SCA POP-1 would further reduce potential housing market effects of the Project Modifications.

The Project Modifications would not include a commercial component and thus would not directly result in an increase in jobs compared to the Approved Project. Therefore, the Project Modifications would not alter the employment impacts for the Approved Project that were addressed under the 2009 EIR. The following impacts related to population growth, are therefore, focused on residential population.

Impacts

Inducement of Population Growth

Impact POP-1: The Project Modifications would not induce substantial population growth in a manner not contemplated in the General Plan, either directly or indirectly, such that additional infrastructure is required but the impacts of such were not previously considered or analyzed. (Criterion A) (*Less than Significant*)

The Project Modifications would not include any changes to the Approved Project's circulation plan or infrastructure plans and therefore would not indirectly induce population growth. The

Project Modifications would include 600 additional residential units within the Approved Project building envelopes and 158 additional marina slips compared with the Approved Project. This would result an onsite population increase of approximately 1,007 residents which represents an approximately 0.2 percent increase relative to the 2018 citywide population of 428,827.⁴

As described in Chapter III, *Project Description*, the Project Modifications would require amendments to the General Plan land use designation (PWD-4) and Zoning Code (PWD-4) to accommodate the increase in density on the Project site. While this increased density was not considered in 2009 EIR or the General Plan, the associated population growth is considered in State and regional planning efforts. The Project Modifications and associated population would be consistent with 2015-2023 Housing Element and related CEQA documents because the Project Modifications would introduce new housing stock in Oakland in an area planned for housing and with a mix of land uses on the same site.

As described above, the City of Oakland and the Bay Area as a whole are experiencing a housing crisis. Populations are increasing with the increased number of jobs in the region, while options to accommodate the housing needs of the City and region are insufficient. The Project Modifications would have a beneficial impact by helping to meet existing housing needs and alleviate the existing population and jobs imbalance in the region. Similarly, providing housing within identified PDAs, the Project Modifications would support the objectives of the *Plan Bay Area 2040*. By developing housing in a PDA, the Project Modifications are also consistent with the goals outlined in the 2015-2023 RHNA and would help the City meet its likely RHNA for the year beginning in 2024. Overall, the Project Modifications would not induce substantial population growth in a manner not contemplated in the General Plan or other local and regional plans and the impact would be less than significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The 2009 EIR evaluated population growth related impacts under Impact J.3 (*less than significant*), Impact J.4 (*less than significant*), and Impact J.5 (*less than significant*). The conclusion regarding the potential for unplanned population growth is substantially the same as that identified in the 2009 EIR. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information” pursuant to CEQA Guidelines Section 15162.

⁴ The analysis considers the residential population generation rate of 1.7 persons per household, a 4 percent vacancy rate, and that 10 percent of slips would be occupied live-aboard boats with the same rate of persons per household: 576 occupied units x 1.7 = 980 persons, 16 live-aboard boats x 1.7 = 27 persons for a total estimate of 1,007 residents.

Displacement

Impact POP-2: The Project Modifications would not directly or indirectly displace substantial numbers of existing people or housing units necessitating the construction of replacement housing elsewhere. (Criteria B and C) (*Less than Significant*)

Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project and this SEIR assumes that there would be no increase in demolition associated with the Project Modifications. Therefore, implementation of the Project Modifications would not result in the displacement of people or housing necessitating the construction of replacement housing elsewhere.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The 2009 EIR evaluated displacement related impacts under Impact J.1 (*no impact*), and Impact J.2 (*less than significant*). No displacement would result from the Project Modifications and no new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information” pursuant to CEQA Guidelines Section 15162.

Cumulative Impacts

Cumulative Context

The cumulative geographic context for population and housing analysis consists of the Project site in addition to the City’s current List of Major Developments Projects (included as Appendix B), with residential growth focused on total housing units. In addition, this analysis considers preliminary population estimates for the Draft Downtown Oakland Specific Plan and the Oakland Waterfront Ballpark District Project. This list encompasses current and reasonably foreseeable projects across the City since cumulative effects must be considered relative to the housing needs and population growth identified in City of Oakland General Plan and 2015-2023 RHNA.

Impacts

Impact POP-3: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects, would not induce substantial population growth in a manner not contemplated in the General Plan and would not result in the displacement of a substantial numbers of people or housing units. (*Less than Significant*)

As analyzed throughout this section, the Project Modifications would not result in a significant population and housing impact by inducing unplanned population growth, or displacing existing people or housing. No new demolition or changed infrastructure improvements are associated with the Project Modifications. The Project Modifications are estimated to house approximately

1,007 additional new residents on the Project site. This represents a small percentage of the total number of households anticipated between 2018 and 2040 in *Plan Bay Area*, which forecasts that the number of occupied households in the City will increase from approximately 162,763 in 2018 to approximately 241,470 by 2040, or a total growth of 78,707 households (see Table IV.J-2 above). This forecast is a projection of growth under the City’s General Plan, taking into consideration economic factors as well as General Plan land use designations and zoning. The cumulative scenario includes Project Modifications together with the City’s current Major Projects List (Appendix B), the Downtown Oakland Specific Plan, and the Oakland Waterfront Ballpark District Project. Conservatively assuming a 4 percent vacancy rate, the cumulative scenario would develop roughly 47,000 occupied households which is within the *Plan Bay Area* citywide growth projections (City of Oakland, 2018 and 2019; MTC, 2018a).⁵

As described in *Environmental Setting*, the City is experiencing a housing crisis due to unplanned population growth and the lack of available housing. The Project Modifications would generate additional housing in an area the City has planned for housing and help to meet existing housing needs. For these reasons, and because the citywide housing forecast between 2018 and 2040 represents planned, rather than unplanned residential development, there would be no significant cumulative impact related to population, and housing. Consequently, the Project Modifications could not combine with or otherwise contribute to a cumulative impact related to these criteria.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The 2009 EIR addressed cumulative impacts under Impact J.6 (*Less than Significant*). The conclusion regarding the potential for the Project Modifications to impact cumulative population growth is substantially the same as that identified in the 2009 EIR. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information” pursuant to CEQA Guidelines Section 15162.

⁵ The Major Project List table includes approximately 15,000 housing units not already constructed, the Downtown Oakland Specific Plan would provide up to 29,077 units, and the Oakland Waterfront Ballpark District Project at Howard Terminal would provide up to 4,000 units. Taken collectively with the 600 units proposed under the Project Modifications, these projects would provide up to 48,677 units.

IV.J.4 References

- Association of Bay Area Governments (ABAG), 2013. *Final Regional Housing Need Allocation, 2015-2023*. Adopted by the ABAG Executive Board on July 18, 2013. Available: https://abag.ca.gov/planning/housingneeds/pdfs/2015-23_RHNA_Plan.pdf. Accessed February 21, 2019.
- , 2021. *Regional Housing Need Allocation Draft Methodology: San Francisco Bay Area, 2023-2031*. Available: https://abag.ca.gov/sites/default/files/documents/2021-02/ABAG_Draft_RHNA_Methodology_Report_2023-2031.pdf. Accessed March 29, 2021.
- City of Oakland, 2003. *Jack London Square Draft EIR*. SCH # 2003022086, September 8, 2003.
- , 2005. *Oak to Ninth Avenue Project Draft EIR*. State Clearinghouse No. 2004062013, August 2005.
- , 2013. *Lake Merritt Station Area Plan Draft EIR*. SCH # 2012032012, November 2013.
- , 2014a. *2015-2023 Housing Element*. Adopted December 9, 2014. Available: www2.oaklandnet.com/oakca1/groups/ceda/documents/report/oak050615.pdf. Accessed June 19, 2019.
- , 2014b. *Coliseum Draft EIR*. SCH # 2013042066, August 2014.
- , 2016. *CEQA Thresholds of Significance Guidelines*. October 17, 2016.
- , 2018. *Notice of Preparation (NOP) of a Draft Environmental Impact Report for the Oakland Waterfront Ballpark District Project*. Available: <https://cao-94612.s3.amazonaws.com/documents/ER18-016-Howard-Terminal-NOP-Final.pdf>. Accessed October 10, 2019.
- , 2019. *The Downtown Oakland Specific Plan Public Review Draft Plan*. August 28, 2019. Available: https://cao-94612.s3.amazonaws.com/documents/FINAL_DOSP-Public-Review-Draft-Plan_082819_Compressed.pdf. Accessed October 10, 2019.
- KQED, 2013. *Photo Gallery: In Oakland Artists' Enclave, Residents Ponder Life With New Neighbors*. April 23, 2013. Available: <https://www.kqed.org/news/94886/draft-5th-avenue-community-photos>. Accessed July 15, 2019.
- Metropolitan Transportation Commission (MTC), 2018a. *Plan Bay Area 2040 Data, TAZ data, PDA data, Alameda County*, data provided via email from Aksel Olsen June 7, 2018.
- , 2018b. *Plan Bay Area (2013) Forecast by Priority Development Area: City of Oakland*. September 21, 2018. Available: <http://opendata.mtc.ca.gov/datasets>. Accessed March 3, 2019.
- Metropolitan Transportation Commission and Association of Bay Area Governments (MTC and ABAG), 2017a. *Plan Bay Area 2040 Final*, July 2017.
- , 2017b. *Land Use Modeling Report, Plan Bay Area 2040 Final*, July 2017.

State of California, Department of Finance, 2007. *E-8 Historical Population and Housing Estimates for Cities, Counties, and the State, 1990-2000*. Sacramento, California, August 2007. Available: www.dof.ca.gov/Forecasting/Demographics/Estimates/E-8/. Accessed July 3, 2019.

———, 2019. *E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2019*. Sacramento, California, May 2019. Available: www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/. Accessed July 3, 2019.

U.S. Census Bureau, 2000. *DP-3 Profile of Selected Economic Characteristics: 2000, Census 2000 Summary File 3 (SF 3) - Sample Data*. selected geographies. Available: <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed July 3, 2019.

———, 2017. *DP-3 Profile of Selected Economic Characteristics: 2017. American Community Survey 5-Year Estimate 2013-2017*. Available at: <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed July 3, 2019.

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IV.K Aesthetics, Shadow, and Wind

Chapter IV This section presents an analysis of potential impacts on aesthetics, shadow, and wind that would result from the Project Modifications described in Chapter III, *Project Description*. The affected environment, regulatory setting, and analysis from the 2009 EIR are relied on to the extent relevant in this Supplemental EIR (SEIR), and are discussed to the extent that they differ from those described in the 2009 EIR. This section analyzes the direct, indirect, and cumulative effects of the Project Modifications and compares them to the conclusions of the 2009 EIR; provides modifications (additions, deletions, updates, or other revisions), as needed, to the approved mitigation measures provided in the adopted Final EIR MMRP; and identifies any residual effects that may remain following the implementation of such measures.

IV.K.1 Environmental Setting

As described in Chapter III, *Project Description*, since preparation of the 2009 EIR, there has been substantial and on-going construction of the Approved Project. At the time of the NOP (September 2018), Phase I on-and off-site improvements were constructed. In addition, Phase I park and open space improvements and development on Parcel B were under construction. Final Development Permits (FDPs) for Affordable Housing on Parcels F and A, FDPs for Parcels C and G, and an FDP for Phase II through IV park and open space improvements had been approved. These changes to the Project site are considered a part of the existing conditions and environmental baseline for this SEIR analysis. With the exception of the removal of existing structures on the Project site, including a portion of the Ninth Avenue Terminal building, there are only minor changes in the site-specific aesthetics, shadow, and wind environmental setting relevant to the SEIR analysis of the Project Modifications.

The following paragraphs provide an update of Project site changes as of the September 2018, Notice of Publication (NOP) as described in Chapter III, *Project Description*.

Visual Character and Views

The environmental setting with respect to visual character and views remains largely unchanged from that described in the 2009 EIR apart from the demolition of existing structures and preparation of the site as described in Chapter III, *Project Description*. Removed structures, as approved under the 2009 EIR, include the marine construction storage building and the associated above-water wharf, most of the Ninth Avenue Terminal Building (a portion of the façade area remains), the retail furniture building, the metal recycling building, and the sand and gravel/concrete mix processing facility (including their dock area). The open/container storage area has been cleared and graded, and roadways in the Phase I and II portions of the Project site have been constructed. The Jack London Aquatic facility and parking area remain, though the 80,000 square-foot wholesale grocery warehouse previously located on the western edge of the Project site has been removed. As described in Chapter III, the Project site is undergoing additional phases of construction, including the construction of Shoreline Park, an 8-story residential building on Parcel B (currently occupied), and the early preparations for 8- and 6-story buildings on Parcels C and Parcel F. Despite these changes, the local setting remains predominantly vacant,

characterized by expanses of open land interspersed with new roadway infrastructure and construction sites.

View Corridors

As of September 2018, view corridors in the project area remain largely the same as described in the 2009 EIR, though removed buildings associated with the Approved Project offer greater visibility, particularly at Shoreline Park which was formerly occupied by the Ninth Avenue Terminal (80 percent of which was demolished to make way for the park).

Light and Glare

Sources of light and glare in the project area remain largely the same as described in the 2009 EIR, though lighting associated with removed building no longer exists, and new lighting around the Approved Project roadways for Phase I and Phase II has been installed.

Shadow

As with the 2009 EIR, there are no permitted solar collector facilities identified in the area based on the City's current list of permitted solar cells (City of Oakland, 2019).

Wind

Meteorological data related to the Project site wind setting is discussed under the 2009 EIR under Section 4.C, *Air Quality*, and remains relevant and applicable to the Project Modifications.

IV.K.2 Regulatory Setting

Federal and State

With the exception of Senate Bill 743 described below, since preparation of the 2009 EIR, there have been no changes to the federal and state regulatory environment with respect to aesthetics, shadow, and wind relevant to the this SEIR analysis.

SB 743

In December 2018, California Governor Jerry Brown signed Senate Bill (SB) 743, which was added to the 2019 text of the CEQA Statute (OPR, 2019). CEQA Statute section 21099(d) states that "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment."¹ Accordingly, aesthetics and parking are not considered in determining if a project has the potential to result in significant environmental effects for projects that meet all of the following three criteria:

¹ Refer to CEQA Statute section 21099(d)(1).

- a. The project is in a transit priority area;²
- b. The project is on an infill site;³ and
- c. The project is residential, mixed-use residential, or an employment center.^{4,5}

While most components of the Project Modifications meet each of the above three criteria, the marina expansion portion is located outside of the one-half mile limit to transit route (MTC, 2017). Therefore, for the purposes of comparison with the 2009 EIR, the Project Modifications are evaluated herein for their effects on aesthetic resources.

Local Plans, Ordinances and Policies

Since preparation of the 2009 EIR, there have been no changes to the City General Plan or municipal code with respect to aesthetics, shadow, or wind relevant to the this SEIR analysis.

Oakland Standard Conditions of Approval (SCAs)

The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) in 2008, and they have since been amended and revised several times.⁶ Like other regulations, the SCAs apply to projects in the City regardless of their CEQA impacts. The SCAs are not mitigation measures and therefore are not listed as mitigation measures. If the Project Modifications are approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project Modifications. With implementation of the SCAs, some of the mitigation measures from the 2009 EIR are no longer needed, and this SEIR notes when that occurs.⁷ Below are the SCAs relevant to aesthetics, shadow, and wind:

- **SCA AES-1 (SCA 19). Lighting Prior to building permit final.** Proposed new exterior lighting fixtures shall be adequately shielded to a point below the light bulb and reflector to prevent unnecessary glare onto adjacent properties.

² CEQA Statute 21099(a)(7) defines a “transit priority area” as an area within 0.5 mile of an existing or planned major transit stop. A “major transit stop” is defined in CEQA Statute 21064.3 as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

³ CEQA Statute 21099(a)(4) defines an “infill site” as a lot located within an urban area that has been previously developed, or a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses.

⁴ CEQA Statute 21159.28(d) defines a “mixed-use residential” project as a project where at least 75 percent of the total building square footage of the project consists of residential use or a project that is a transit priority project as defined in CEQA Statute 21155. CEQA Statute 21155 defines “transit priority project” as a project that (1) contains at least 50 percent residential use, based on total building square footage and, if the project contains between 26 percent and 50 percent nonresidential uses, a floor area ratio of not less than 0.75; (2) provides a minimum net density of at least 20 dwelling units per acre; and (3) is within one-half mile of a major transit stop or high-quality transit corridor included in a regional transportation plan.

⁵ CEQA Statute 21099(a)(1) defines an “employment center” as a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 and located within a transit priority area.

⁶ A revised set of SCAs was recently published by the City of Oakland in December, 2020.

⁷ Where SCAs replace mitigation measures for the Project Modifications, such replacement does not indicate that the Project Modifications would have new or substantially more severe environmental impacts than the Approved Project.

IV.K.3 Impacts and Mitigation Measures

Significance Criteria

The City of Oakland has established thresholds of significance for CEQA impacts, which incorporate those in Appendix G of the CEQA Guidelines (City of Oakland, 2016). Based on these thresholds, the Project Modifications would have a significant impact on the environment if it would:

- A. Have a substantial adverse effect on a public scenic vista;⁸
- B. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, located within a state or locally designated scenic highway;
- C. Substantially degrade the existing visual character or quality of the site and its surroundings;
and
- D. Create a new source of substantial light or glare which would substantially and adversely affect day or nighttime views in the area;
- E. Introduce landscape that would now or in the future cast substantial shadows on existing solar collectors (in conflict with California Public Resource Code sections 25980-25986);
- F. Cast shadow that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors;
- G. Cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space;
- H. Cast shadow on an historic resource, as defined by CEQA Guidelines section 15064.5(a), such that the shadow would materially impair the resource's historic significance by materially altering those physical characteristics of the resource that convey its historical significance and that justify its inclusion on or eligibility for listing in the National Register of Historic Places, California Register of Historical Resources, Local Register of historical resources, or a historical resource survey form (DPR Form 523) with a rating of 1-5;
- I. Require an exception (variance) to the policies and regulations in the General Plan, Planning Code, or Uniform Building Code, and the exception causes a fundamental conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses; or
- J. Create winds that exceed 36 mph for more than one hour during daylight hours during the year.

Methodology

Consistent with CEQA guidance, the SEIR is required to evaluate only the changes in the project, circumstances, or new information that could give rise to new significant environmental impacts or substantially more severe environmental impacts than were analyzed in the 2009 EIR. As such, in accordance with CEQA Guidelines Section 15163, this SEIR contains information necessary to

⁸ Only impacts to scenic views enjoyed by members of the public generally (but not private views) are potentially significant.

disclose environmental impacts from the Project Modifications that were not analyzed in the 2009 or would be substantially more severe than anticipated by the 2009 EIR. This SEIR evaluates the Project Modifications using the City's current methodology, significance criteria, and thresholds. The analysis relies on the environmental baseline, which is the physical circumstances existing at the time the NOP was published in September 2018, and also compares the Project Modification to the Approved Project to determine if the modifications create any new or substantially more severe impacts on the environment. This SEIR discusses new City requirements and analysis methods established since preparation of the 2009 EIR, such as the incorporation of the City's SCAs, which would be required conditions of approval for the Project Modifications.

Changes that have occurred to the regulatory setting since preparation of the 2009 EIR are described above. The City's CEQA Thresholds of Significance for aesthetics, shadow, and wind have not changed since preparation of the 2009 EIR although analysis for potential wind impacts was moved from Air Quality into the Aesthetics section. Therefore, the impact discussions and analyses below focus on the activities associated with the Project Modifications and the potential for aesthetics, shadow, and wind impacts associated with those activities.

Visual Simulations

The analysis of the marina expansion component of the Project Modifications is aided by computer-generated visual simulations prepared by Environmental Vision. In response to NOP scoping comments, four visual simulations were prepared to illustrate "before" and "after" visual conditions at the Project site by photographing the existing setting and simulating both the Approved Project's simple massing plan and the Approved Project together with the marina expansion component of the Project Modifications. Viewpoints from publicly accessible observation points, from locations where an observer can see the area extending from Clinton Basin to Brooklyn Basin, were selected by the Oakland Planning Bureau in consultation with ESA and Environmental Vision. These viewpoints were selected to capture a representative sample of existing views of and from the marina expansion area. Two viewpoints (Viewpoints 15A and 15B) were included to illustrate changes in views from internal points on the Project site. Although internal to the site, these locations are from public vantage points (Shoreline Park) and simulate the types of views that could be available to future site residents and visitors.

It is important to note that the images of the Approved Project shown in the simulations are the same as what was shown and analyzed in the 2009 EIR with two exceptions. First, the building on Parcel B was constructed when photographs were taken and is captured in the existing conditions. Second, the simulation for Shoreline Park is slightly different from what was simulated in the 2009 EIR and reflects the currently approved pedestrian circulation plan. The simulated Approved Project is intended to convey the general mass, height, and interrelationships of project buildings, individually and collectively, and is not intended to represent architectural detail. Also, to assess the worst-case impacts on views and scenic vistas, the simulated Approved Project depicts a maximum height and massing scenario (86-foot maximum podiums/buildings on most parcels and towers at a maximum 240 feet on Parcels A, H, J, K, and M). The Project Modifications marina expansion is simulated to include approximately 85 percent of the boat slips occupied with a mix of both sailboats and powerboats at sizes corresponding to the slip

sizes. The floating docks are shown at the tidal water levels in the existing conditions photographs, which include a range between mid to high-tide levels.

Shadow

Shadow graphics were prepared by Environmental Vision based on the Approved Project model presented and analyzed in the 2009 EIR with the inclusion of two new potential tower locations. As with the visual simulations, the model used in the shadow analysis was based on a simple massing plan of the Approved Project and Project Modifications illustrating the maximum allowable building envelopes only. Actual building designs may include features that could reduce shadow such as setbacks, modulation, and potentially variation in the depths of façade planes. Therefore, the shadow analysis can be considered a conservative evaluation of potential shadow that would result from the Project Modifications.

Aesthetics Topics Determined to Require No Further Analysis in this SEIR

The Approved Project was determined not to have a significant impact on scenic resources within a state or locally designated scenic highway, since no state or locally designated scenic highways exist near the Project site. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would be developed on the same Project site and thus potential impacts on scenic resources within a state scenic highway is not reevaluated herein (Criterion B).

Impacts

Impact AES-1: The Project Modifications would not have a substantial adverse effect on a public scenic vista. (Criterion A) (*Less than Significant*)

The 2009 EIR concluded that, although the Approved Project would change views from the public access areas along the Oakland shoreline, estuary waters, I-880, the Embarcadero, the city of Alameda shoreline, and inland Oakland areas; it would avoid significantly obstructing limited existing views of scenic resources such as the hills, the estuary and distant San Francisco skyline. The Approved Project would establish a new skyline that would be slightly lower than the natural horizon line of the East Bay hills in the distance (viewed from the Alameda shoreline), and would thereby preserve most views of the hills from long-range viewpoints. Overall, the 2009 EIR determined the Approved Project's changes to existing views would not be substantial or adverse.

Tower Relocation Component

The Project Modifications would potentially change the location of one of the Approved Project towers (up to 240 feet tall), currently designated for either Parcel H or J to either Parcel L or M, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV and decreased building mass in Phase II (see Figure III-5). This change would not increase the total number of towers on the Project site, nor would it modify the design parameters associated with the towers on the Project site. The new potential tower location on Parcel M would align with the northernmost portion of the parcel along the Embarcadero and the new potential tower location on Parcel L would align with Clinton Basin on the easternmost portion of the parcel. As

shown in Figure IV.A-1, the new potential tower locations would not obstruct protected views to the bay. Therefore, although the precise location of changes to existing views would be altered compared with the Approved Project, the new tower locations would not increase the severity of the changed views of the Project site such that the impact would become substantial or adverse. In addition, the new tower locations would not interfere with the Approved Project’s new, sizeable public parks that were considered a beneficial impact with respect to views and scenic vistas. Therefore, the Project Modifications’ potential tower relocation would not result in a new or more severe significant impact with respect to public views and scenic vistas.

Marina Expansion Component

The Project Modifications’ marina expansion component would expand the Approved Project’s proposed Clinton Basin marina, extending the marina southeast along the Brooklyn Basin project shoreline including the Shoreline Park waterfront, and thereby add approximately 10 acres of water surface to the Project site. The proposed marina would consist of a floating dock system comprised of 14 docks with recreational boat slips ranging from 40 to 80 feet in length wrapping along the shoreline from immediately east of 9th Avenue, continuing west and then northeast, and terminating at the most northern portion of Clinton Basin (see Figure III-6 in Chapter III, *Project Description*). The docks constructed along the most southwestern portion of Clinton Basin would accommodate larger vessels (up to 80 feet in length) with a long dock extending north along the shoreline. The expansion would result in additional marina infrastructure along Brooklyn Basin, such that the entire shoreline of the peninsula containing Phases I and II would include marina facilities immediately offshore. The following analysis evaluates associated changes to scenic views and vistas from specific public viewpoints.

As described above in *Methodology*, the impacts analysis below is aided by the visual simulations prepared by Environmental Vision, which document views as changed by the addition of the marina expansion. The locations of the four viewpoints are consistent with three of the viewpoints evaluated in the 2009 EIR where the marina expansion would be visible. The viewpoints are listed in **Table IV.K-1** and shown in **Figure IV.K-1**. For each location, three images are presented including the existing setting (photographed June 2019), the Approved Project in the existing setting, and the Approved Project with the marina expansion.

**TABLE IV.K-1
 VIEWPOINT LOCATIONS**

View No.	View Description
1	Northeast view from Alameda shoreline at Wind River office building
11	Southwest from the Bay Trail near the Best Western Bayside Hotel
15 A	Southeast view from Brooklyn Basin Way at 9th Avenue
15 B (near original viewpoint 15)	Southeast view from Brooklyn Basin Shoreline Park

SOURCE: ESA, 2019



SFO15XXX XID150431.00 - Brooklyn Basin 2018 Expansion - Marina.05 Graphics-GIS-Modeling/illustrator

SOURCE: Environmental Vision, 2019; Aerial Source - ESRI, 2019

Brooklyn Basin Marina Expansion Project

Figure IV.K-1
Visual Simulations Viewpoint Locations



Viewpoint 1, From Alameda Shoreline. Figure IV.K-2 illustrates a view of the Project site and surroundings from the Alameda shoreline looking northeast. In the existing view from this location, the Project site is visible in long-range panoramic views. Foreground views are of a boardwalk shoreline band. Mid-ground views encompass the Oakland Estuary's Inner Harbor waters. Looking directly to the north, beyond the Project site, an elevated span of I-880 is visible, as are a few large buildings near Lake Merritt. The Project site's maritime-industrial shoreline is characterized by small piers supporting the wharf, boats, and the Ninth Avenue Terminal building to the east. In the distance, the East Bay hills create a natural, though developed, backdrop.

The 2009 EIR concluded that the Approved Project would result in noticeable changes to the existing view from this viewpoint but would not substantially affect any scenic vista, including long-range views of the East Bay hills or the downtown Oakland skyline. The Viewpoint 1 simulation of the marina expansion show the same existing setting and Approved Project buildings with additional ships docked in the expanded marina along the site perimeter. The expanded marina would be visible from this location but would blend into the visual line between the water and onshore development. Some boat masts could appear very slightly above the Approved Project's skyline. Overall, from Viewpoint 1, the expanded marina would provide a visual break against the somewhat uniform building masses and enhance the maritime character of the site. This is considered a beneficial impact.

Viewpoint 11, From Bay Trail. Figure IV.K-3 shows existing views from the Bay Trail near the Best Western Bayside Hotel, looking southwest. Foreground (short-range) views are dominated by a vacant lot (located to the west of Embarcadero) and a landscaped portion of the Bay Trail. Portions of the San Francisco skyline are visible toward the center of this view. This viewpoint illustrates that with the Approved Project, short-range views would be defined by views of the estuary and the boats within Embarcadero Cove. Although new buildings in this view would be visible under the Approved Project, the 2009 EIR concluded that these buildings would not substantially obstruct any existing views of the estuary or long-range views of Alameda or the San Francisco skyline.

The Viewpoint 11 simulation of the marina expansion shows the additional ships docked in the marina along the site perimeter, particularly near the Ninth Avenue Terminal Building. The marina expansion would be visible in the far distance on the left side of this view and in front of the Ninth Avenue Terminal Bulkhead Building. Specific vessels and details of the docking structure would be too far to see in detail though boat masts would create a new articulated horizon line. Views of the Ninth Avenue Terminal Building and the San Francisco skyline would remain visible though partially obscured. Overall, the Project Modifications would alter views from this location but would not change the aesthetic character as it is already dominated by maritime uses and the Embarcadero Cove. Views of marinas are contextual on an urban waterfront where marina use is to be expected and even encouraged under the public trust doctrine (see Section IV.A, *Land Use, Plans, and Policies*). This is considered a less-than-significant impact.



Existing view from Alameda shoreline at Wind River office building looking northeast



Visual simulation of Approved Project



Visual Simulation of the Approved Project with the marina expansion

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SOURCE: Environmental Vision, 2019

Brooklyn Basin Marina Expansion Project

Figure IV.K-2
Viewpoint 1





Existing view from the Bay Trail near the Best Western Bayside Hotel looking southwest



Visual simulation of Approved Project



Visual Simulation of the Approved Project with the marina expansion

SFO\150000_X\Dr150431_00 - Brooklyn Basin 2018 Expansion - Marina\05_Graphics-GIS-Modeling\Illustrator

SOURCE: Environmental Vision, 2019

Brooklyn Basin Marina Expansion Project

Figure IV.K-3
Viewpoint 11



Viewpoint 15A, From Brooklyn Basin Way 2005. Figure IV.K-4 illustrates a short-range view looking southeast as it existed when the 2009 EIR was prepared (2005). In this view, the marina expansion is simulated from Brooklyn Basin Way and compared with the baseline conditions from 2005. At that time, loading bays along the north/west elevation of the Ninth Avenue Terminal building blocked views of the water and beyond. The partial removal of the Ninth Avenue Terminal building was approved under the 2009 EIR and is now complete and this newly available access to the elevated Shoreline Park and long-range views is represented and evaluated in Viewpoint 15B below.

As described in the 2009 EIR, the Approved Project establishes a new view and provides an unobstructed long-range water view from across the site to Brooklyn Basin and beyond. This view, now a part of existing conditions, would be changed with the addition of the marina expansion. Mid-range views would be punctuated by boat masts though visual access to the open sky would not be notably diminished. Boats and details of the docking structure would be blocked by the elevated Shoreline Park. Note the estuary is also blocked from view in this location and the addition of boat masts would indicate the presence of the otherwise obscured waters and waterfront activity. Changes to views from this location would not substantially effect scenic vistas and is considered a beneficial impact.

Viewpoint 15B, From Brooklyn Basin Shoreline Park: Figure IV.K-5 illustrates the same viewpoint direction as Viewpoint 15A, although elevated and closer to the shoreline as this viewpoint is from within the newly developed Shoreline Park. This viewpoint was selected in part to consider the potential impacts of the marina expansion on view corridors identified in the Approved Project's 2011 BCDC permit. The top image in Figure IV.K-5 shows Shoreline Park which was developed as a part of the Approved Project. At this elevated location, short-range views consist of the Bay Trail through the park and mid-range views include the estuary waters. Long-range views are characterized by Brooklyn Basin's active boating community including a large US Coast Guard vessel on Coast Guard Island and various watercraft in Alameda's multiple marinas.

The middle image shows Shoreline Park in use, as it will be under Approved Project conditions. The bottom image adds the Project Modifications' marina expansion just beyond the park. Due to the park's elevation, viewers would look over the tops of these boats and views would not be dominated by their size or bulk. The marina expansion would not obstruct or obscure mid- or long-range views as seen through boat masts, including view of the estuary waters. Rather, the marina expansion would extend the active maritime character of surrounding uses to the Project site and would be in keeping with views of Brooklyn Basin's active boating community. As noted above, views of marinas are contextual on an urban waterfront where marine use is to be expected and even encouraged under the public trust doctrine. The marina expansion would not substantially change scenic vistas from this location.



Existing view from Brooklyn Basin Way at 9th Avenue looking southeast (2005)



Visual simulation of Approved Project



Visual Simulation of the Approved Project with the marina expansion

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SOURCE: Environmental Vision, 2019

Brooklyn Basin Marina Expansion Project

Figure IV.K-4
Viewpoint 15A





Existing view from Brooklyn Basin Shoreline Park looking southeast



Visual simulation of Approved Project



Visual Simulation of the Approved Project with the marina expansion

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SOURCE: Environmental Vision, 2019

Brooklyn Basin Marina Expansion Project

Figure IV.K-5
Viewpoint 15B



Overall, the Project Modifications' marina expansion would result in a noticeable increase in marina infrastructure and use by various types of watercraft that would be visible from both within the Project site and from surrounding viewpoints. However, the nature of the visual change by the expanded marina would be consistent with the existing maritime character of the Project site and surrounding area. Based on the above evaluation of the Project Modifications' changes to existing and Approved Project views and scenic vistas from four public vantage points, the Project Modifications would have a less-than-significant impact that could be viewed as a beneficial effect.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impact to scenic vistas and resources is the same as identified in the 2009 EIR (Impact K.2, *less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, "changed circumstances," or "new information" pursuant to CEQA Guidelines Section 15162.

Impact AES-2: The Project Modifications would not substantially degrade the existing visual character or quality of the site and its surroundings. (Criterion C) (*Less than Significant*)

The 2009 EIR concluded that the Approved Project's proposed buildings and site plan would change the aesthetic and visual character of the Project site and would result in a beneficial effect.

While the Project Modifications would increase the number of units on the Project site from 3,100 to 3,700, they would not modify the footprint, height, massing or setbacks of the Approved Project's building envelopes, although the Project Modifications would allow a change to the location of one of the Approved Project towers (180 to 240 feet tall), currently designated for either Parcel H or J to either Parcel L or M, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV. However, this change would not increase the total number of towers on the Project site, nor would it modify the design parameters associated with the towers on the Project site. The scale and intensity of the Project Modification's residential development would not be larger, or significantly different from that of the Approved Project. The Project would not introduce a new visual element on land that is inconsistent with established cohesive visual patterns in the Project site and surrounding urbanized area. Therefore, the increased residential density and tower relocation would not change the nature of Approved Project's impacts to visual character and quality.

Regarding the non-residential development, the 2009 EIR concluded that the Clinton Basin Promenade component of the Approved Project would result in a beneficial impact with respect to visual character and quality by promoting a new sense of "place" and by creating an identifiable urban center with retail, dining, recreation, and neighborhood commercial development. These features would be developed at primary public gathering areas from which

there would be views of the estuary and/or major open spaces. The Project Modifications' marina expansion component, configured to maximize activation of the waterfront, would wrap along the shoreline from immediately east of 9th Avenue, continuing west and then northeast, and terminating at the most northern portion of Clinton Basin. Upland access to the docks would be provided by main walkway improvements near the Ninth Avenue Terminal Building and seven ADA accessible gangways of various lengths. Overall, the Project Modification's marina expansion component is consistent with visual character and quality of the Approved Project's Clinton Basin Promenade and would expand this urban visual character to the Brooklyn Basin offshore frontage, as well. As noted above, views of marinas are contextual on an urban waterfront and marina use is to be expected and even encouraged under the public trust doctrine. The marina expansion would be consistent with the nature of Approved Project's impacts to visual character and quality.

As addressed in Section IV.A, *Land Use, Plans and Policies*, the Project Modifications would be consistent with Oakland General Plan policies related to visual quality. Project Modifications would adhere to existing design policies and objectives and would implement the City's long-term vision for the Project site. Furthermore, as with the Approved Project, development of individual parcels under the Project Modifications would continue to be subject to design review by the City's Design Review Committee.

The California Natural Resources Agency and CEQA case law acknowledge that determining whether a project would degrade an existing visual character is "exceedingly subjective."⁹ For that reason, the California Natural Resources Agency suggests that the significance of an aesthetic impact on visual character in urban areas, such as Oakland, be judged by whether a project is consistent with zoning or other regulations governing visual character. As noted above, the Project Modifications are consistent with the Oakland General Plan policies related to visual quality and are consistent with the area's long history as a working, urban waterfront.

Therefore, the overall impact of Project Modifications related to visual character would not be adverse, and this impact would be less than significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impact to visual character and quality is the same as identified in the 2009 EIR (Impact K.1, *less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, "changed circumstances," or "new information," pursuant to CEQA Guidelines Section 15162.

⁹ California Natural Resources Agency, Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines (Nov. 2018), available at https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/2018_CEQA_Final_Statement_of%20Reasons_111218.pdf.

Impact AES-3: The Project Modifications would create a new source of light, but would not substantially or adversely affect day or nighttime views in the area. (Criterion D) (*Less than Significant*)

The Project Modifications would potentially change the location of one of the Approved Project towers currently designated for either Parcel H or J to either Parcel L or M, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV equal to the decreased building mass in Phase II. However, this change would not increase the total number of towers on the Project site, nor would it modify the scale and intensity of the Approved Project's residential sources of light and glare. Consequently, the impacts of light and glare related to the landside development are not reevaluated here.

The marina expansion would result in more light and glare sources, particularly during nighttime hours. However, the expanded marina overall lighting system would be the same as the lighting system designed for the Approved Project. Lights would generally be designed with downward-pointing lights, side shields, and visors. Any up-lighting would be limited to acceptable lighting levels required by the City's Outdoor Lighting Standards, SCA AES-1. Also, as with the Approved Project, the City would ultimately review project lighting and the reflective properties of building materials as part of the Final Design Review required for individual development projects developed under the Modified Project.

The amount of light and glare from the Project Modifications would be comparable to light and glare from other urban development in the area would not substantially increase overall ambient light levels. Since the Project Modifications would consist of development and lighting treatments typical of marinas and would be consistent with City standards for outdoor lighting, it would not result in new sources of substantial adverse light or glare impacts, and this impact would be less than significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impact from new light and glare is the same as identified in the 2009 EIR (Impact K.3, *less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, "changed circumstances," or "new information" pursuant to CEQA Guidelines Section 15162.

Impact AES-4: The Project Modifications would not cast shadow that would substantially impair a nearby use reliant on sunlight, including the following functions: a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors; the beneficial use of any public or quasi-public open space; a historic resource. (Criteria E, F, G, and H) (*Less than Significant*)

The Project Modifications would not include changes to the Approved Project's overall building envelopes or circulation plan, including plans for landscaping, as analyzed in the 2009 EIR.

Furthermore, based on the City's current list, there are no permitted solar collector facilities in the area (City of Oakland, 2019). Therefore, impacts related to Criteria E and F are considered to have no impact and are not reevaluated herein.

Although the Project Modifications would potentially change the location of one tower designation from either Parcel H or J to either Parcel L or M, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV equal to a decrease in Phase II, no change is proposed to the number or height of the Approved Project towers. This change would not modify the approved design parameters associated with the towers on the Project site. Therefore, while the Project Modifications would change where shadows would fall, they would not result in any increase to the total amount of new shading approved in the 2009 EIR.

The 2009 EIR included a shadow analysis to evaluate the worst-case shadow impacts of the Approved Project by assuming a maximum height and massing scenario (86-foot maximum on most parcels and 240-foot towers). The exact tower locations were not determined at that time. For this reason, the 2009 EIR included a "Tower Zone" shadow outlining the maximum extent of any shadow that could be cast from a particular tower that could be located anywhere within its identified parcel. No tower shadow would be as large as the area depicted by the tower zone shadow.

For the purposes of a conservative analysis, the Project Modifications' potential new tower locations are analyzed herein and compared with tower zone shadow analyzed and approved under the 2009 EIR. This analysis is focused on the area of potential new shadow from new tower locations. These new shadows are indicated in blue in the following shadow diagrams. Note potential new shadow from a second tower on Parcel M is fully within the tower zone shadow analyzed and approved in the 2009 EIR and thus does not represent a new location or new shadow compared with the Approved Project. While this is indicated with a blue outline in the following shadow diagrams, it is not reevaluated herein.

As shown in figures depicting fall and spring (**Figures IV.K-6–IV.K-8 and IV.K-12–IV.K-14**), morning shadows (around 9:00 AM) from Parcel L would span the southern portion of the Fifth Avenue Point outparcel. The new shadow would also shade the southern extension of Chanel Park during the early morning hours but would not reach westward to the shoreline or estuary waters.¹⁰ As shown in Figures IV.K-7 and IV.K-13, the wetland restoration area would be in full sun by mid- to late-morning during the spring and fall. By mid- to late-morning, the southern extension of Chanel Park and the majority of the Fifth Avenue Point outparcel would be in full sun. By noon, the new shadow would be considerably shorter but would still cast shadow on the western extension of the Fifth Avenue Point outparcel, adjacent to and north of Parcel L. There would be no new shadows by the Project Modifications during fall and spring afternoon hours.

¹⁰ Although the Project site street grid and parcels are do not run directly north-south or east-west, for the purposes of this description and ease of review, the Embarcadero is considered to form the Project site's northern boundary.

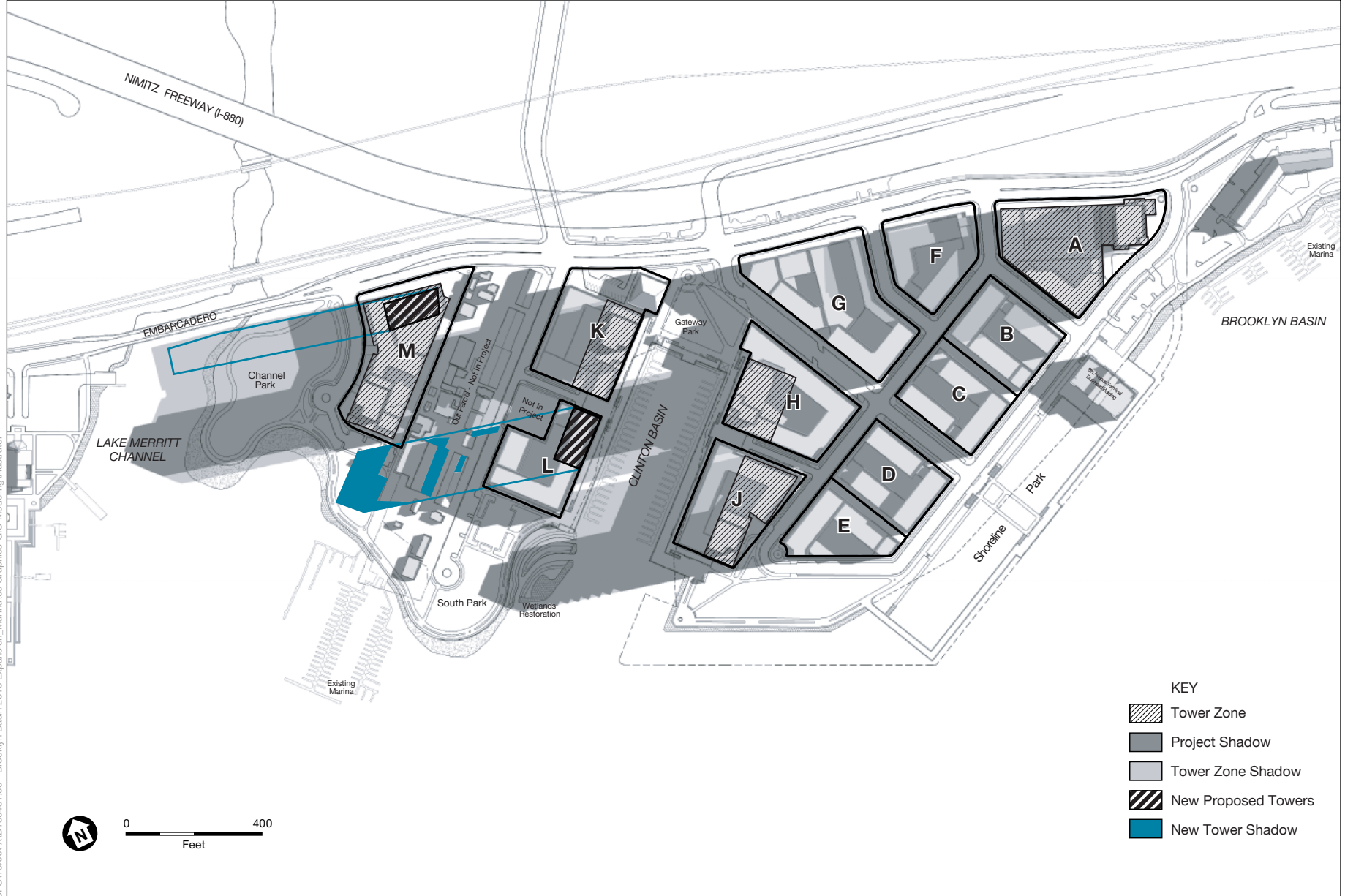
As shown in figures depicting the summer solstice when shadows are at their shortest (**Figures IV.K-9–IV.K-11**), new shadow from Parcel L would fall mainly on internal streets and walkways. A small portion of the western extension of the Fifth Avenue Point outparcel would be newly shaded during the midday. New shadows would extend to the shoreline near Clinton Basin during the afternoon hours. The Project Modifications would not cast new shadow on the existing Estuary Park, the approved Channel Park or its shoreline area during in the summer months.

Shadows are at their longest and reach to their furthest extent during the winter solstice (**Figures IV.K-15–IV.K-17**). The new tower on Parcel L would not cast new shadows during the winter morning or afternoon hours but would add new shadow to the norther portion of the Fifth Avenue Point outparcel midday. The Project Modifications would not cast new shadow on the existing Estuary Park, the approved Channel Park or its shoreline during winter months.

The above assessment of new Project Modification shadow impacts indicates that the worst-case shading of shadow-sensitive areas, including existing work-live and residential uses, would occur during morning hours (around 9:00 am) in March and September (Figure IV.K-6 and Figure IV.K-12, respectively). In many cases, however, new shading would subside by mid-morning to noon. At midday (around 12:00 pm), these sensitive areas are within or close to full sun under project conditions (Figures IV.K-7, IV.K16, IV.K-17). There would be no new shading with a tower relocation to Parcel M. Project Modification shadows, therefore would not result in an unreasonable blockage of light to these buildings. Overall, based on the above evaluation, the Project Modifications would result in less-than-significant shadow impact with respect to shadows.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impact to scenic vista and resources is the same as identified in the 2009 EIR (Impact K.4, *less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information” pursuant to CEQA Guidelines Section 15162.

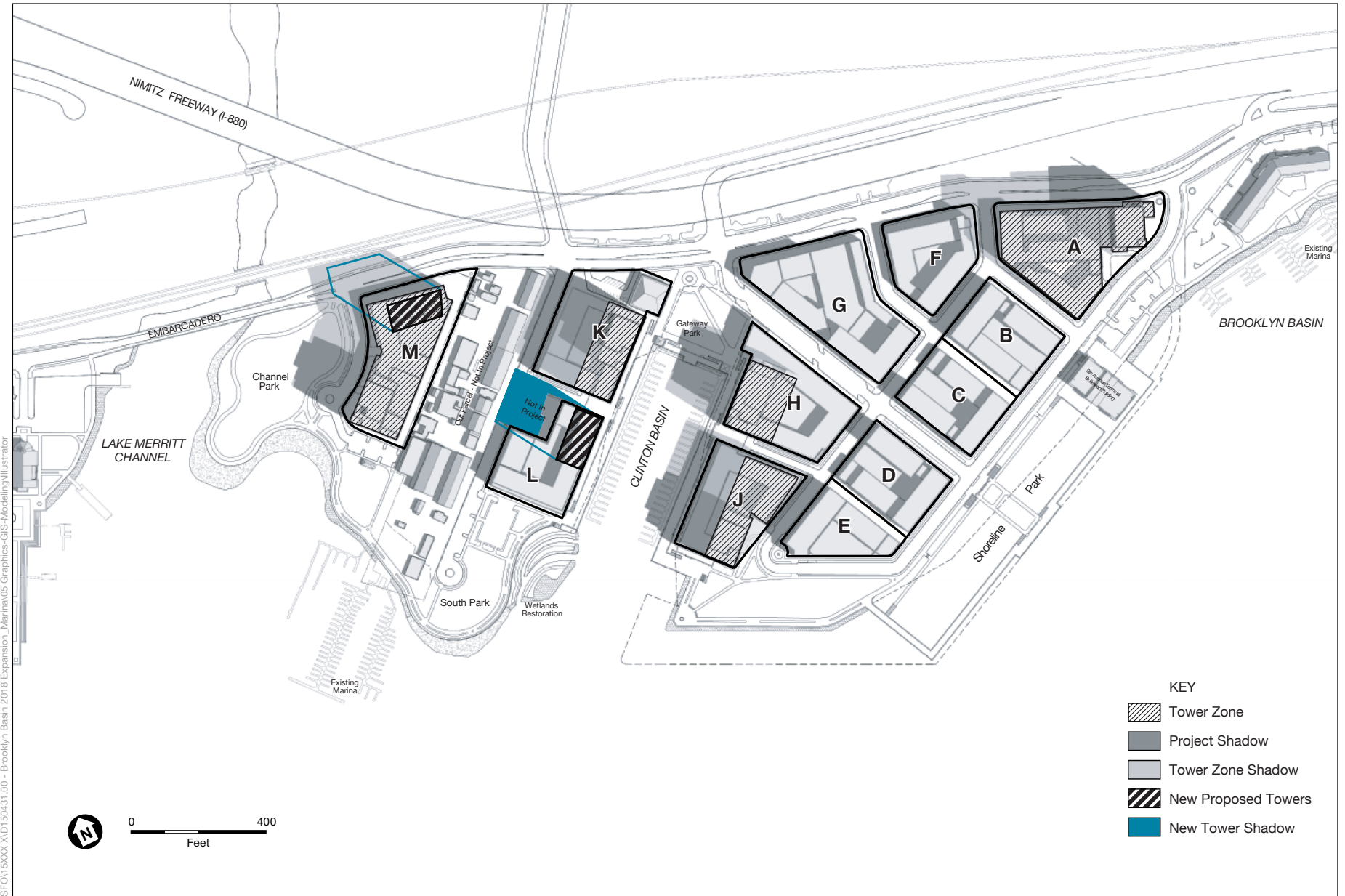


SOURCE: Environmental Vision, 2019

Brooklyn Basin Marina Expansion Project

Figure IV.K-6
March Shadow Patterns: 9 am PDT

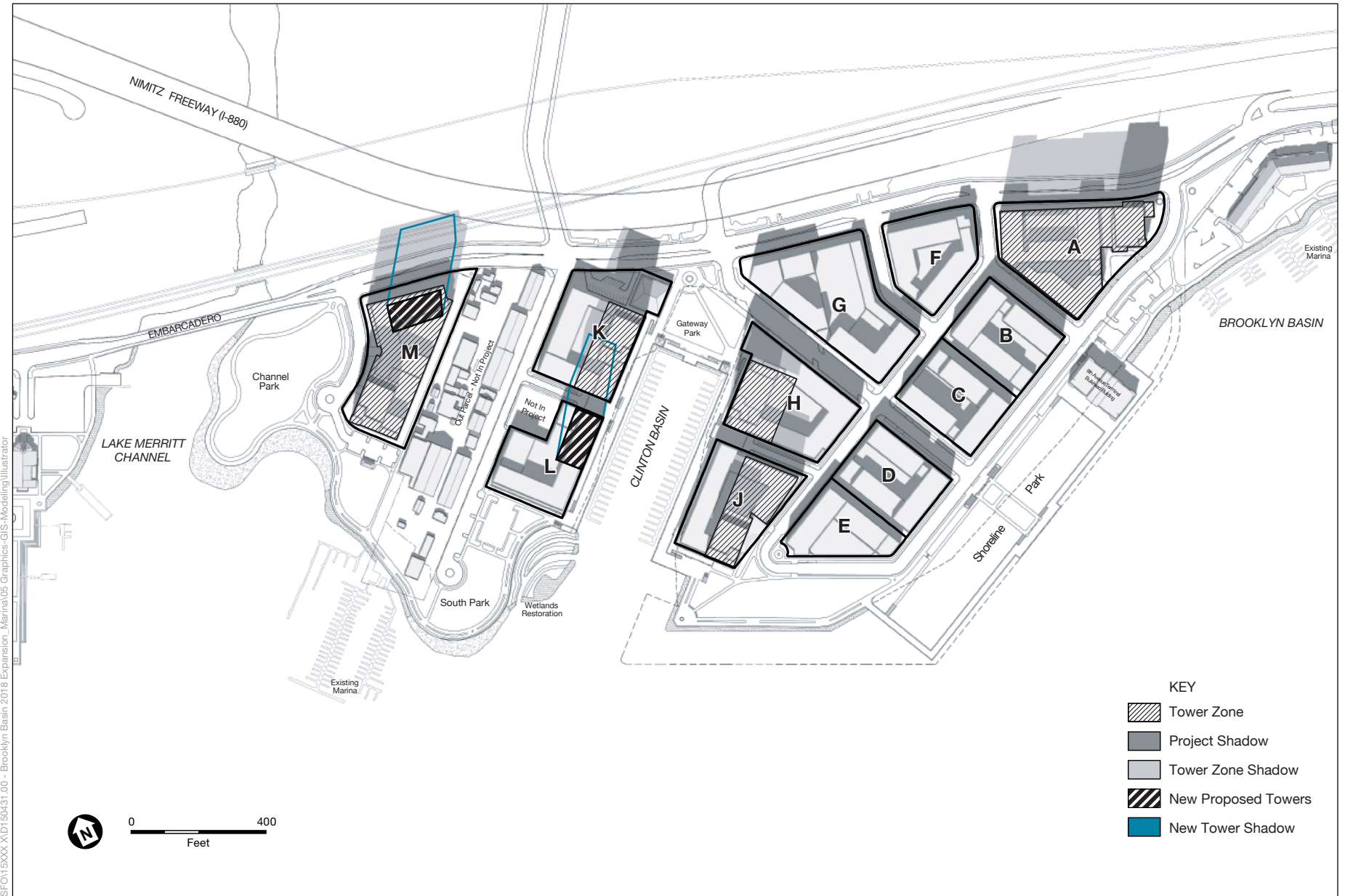




SOURCE: Environmental Vision, 2019

Brooklyn Basin Marina Expansion Project

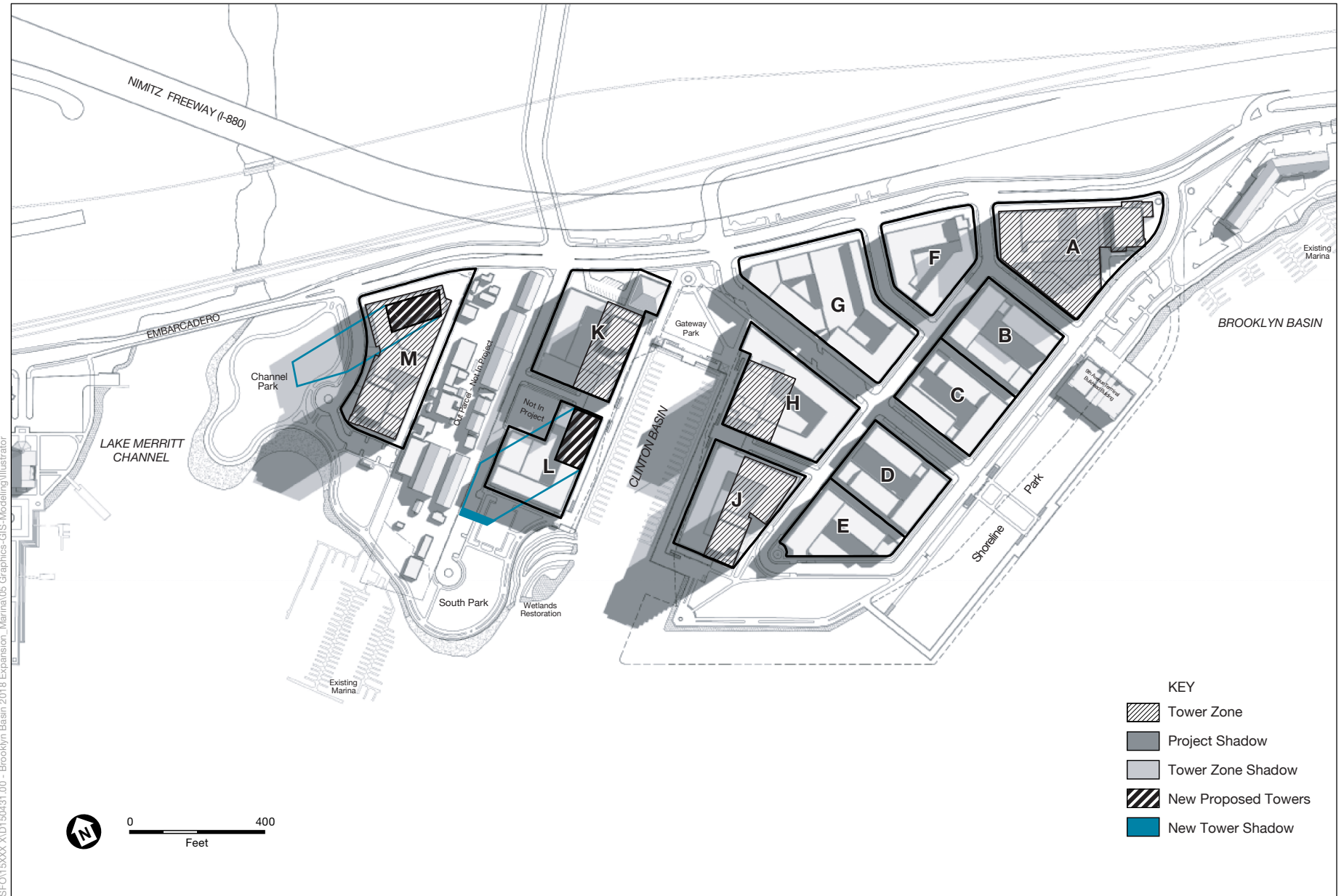
Figure IV.K-7
March Shadow Patterns: 12 noon PDT



SOURCE: Environmental Vision, 2019

Brooklyn Basin Marina Expansion Project

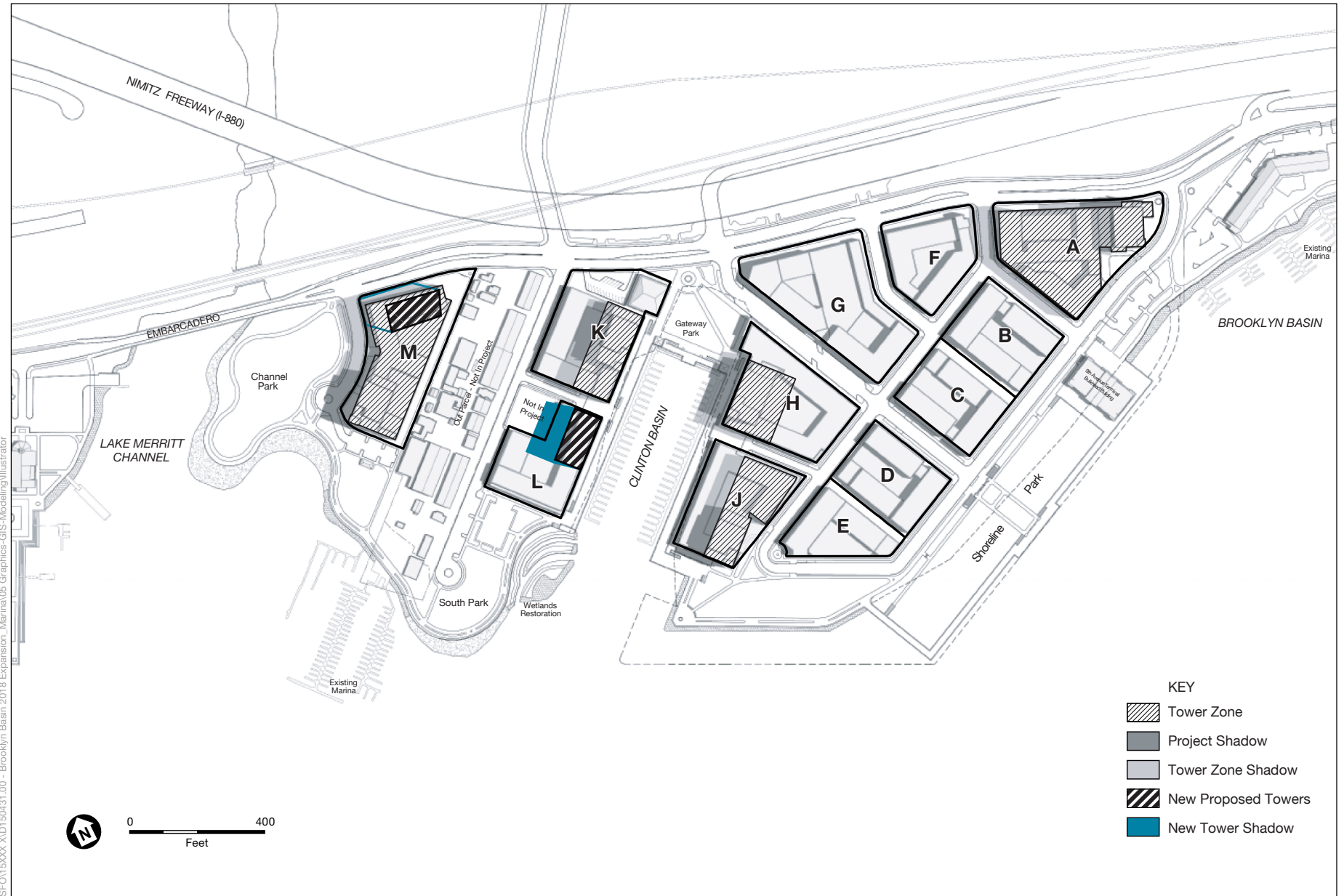
Figure IV.K-8
March Shadow Patterns: 3 pm PDT



SOURCE: Environmental Vision, 2019

Brooklyn Basin Marina Expansion Project

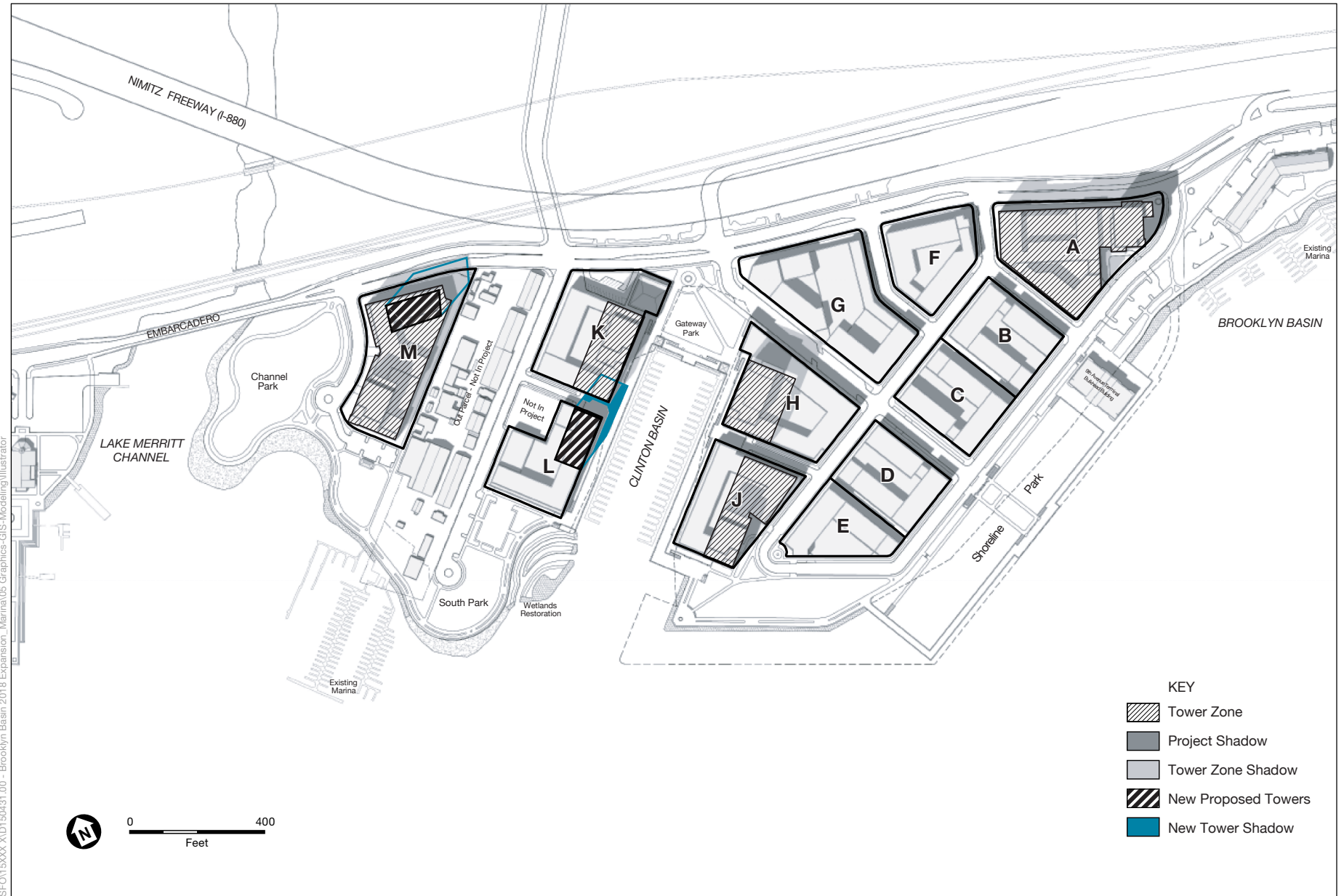
Figure IV.K-9
June Shadow Patterns: 9 am PDT



SOURCE: Environmental Vision, 2019

Brooklyn Basin Marina Expansion Project

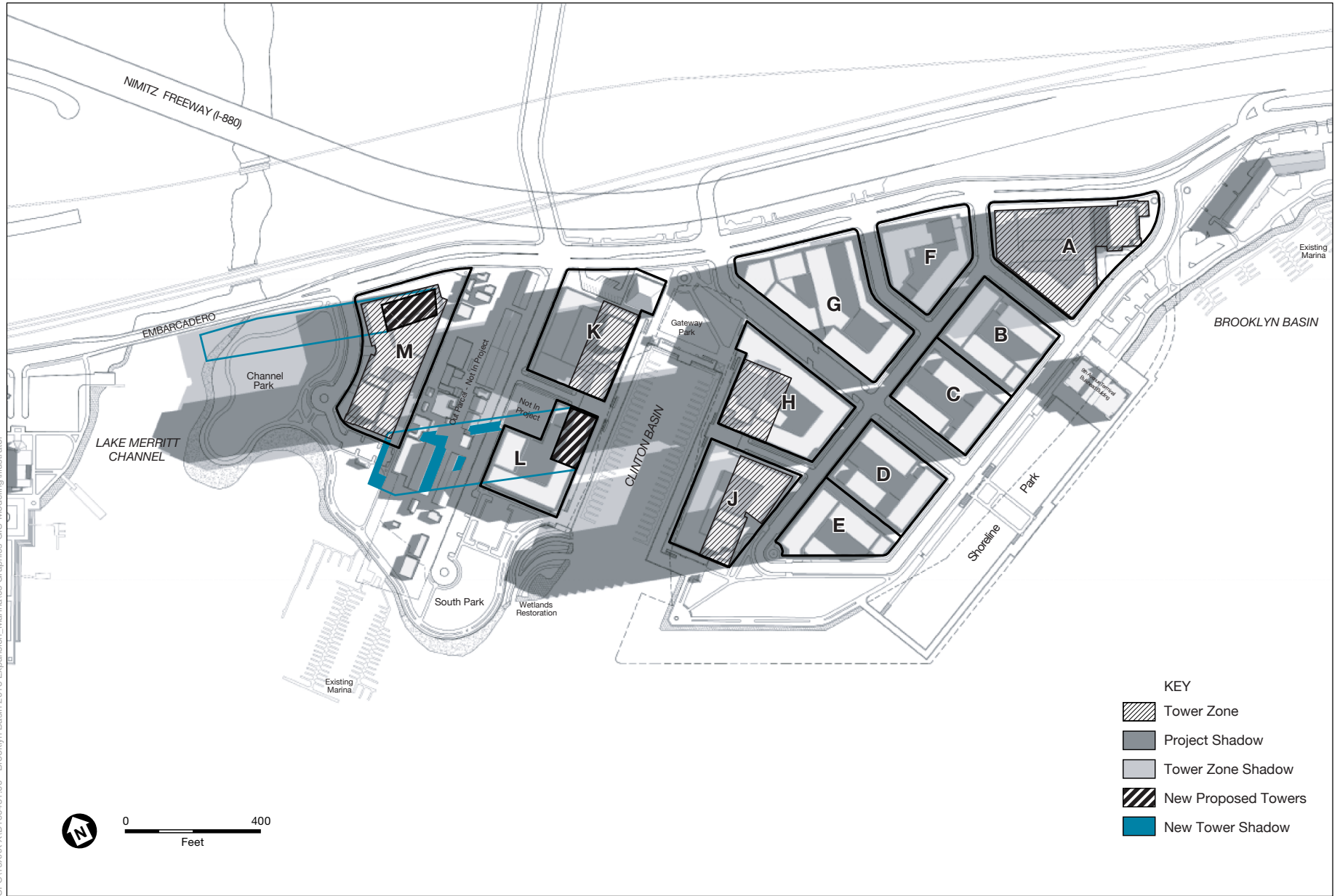
Figure IV.K-10
June Shadow Patterns: 12 noon PDT



SOURCE: Environmental Vision, 2019

Brooklyn Basin Marina Expansion Project

Figure IV.K-11
June Shadow Patterns: 3 pm PDT

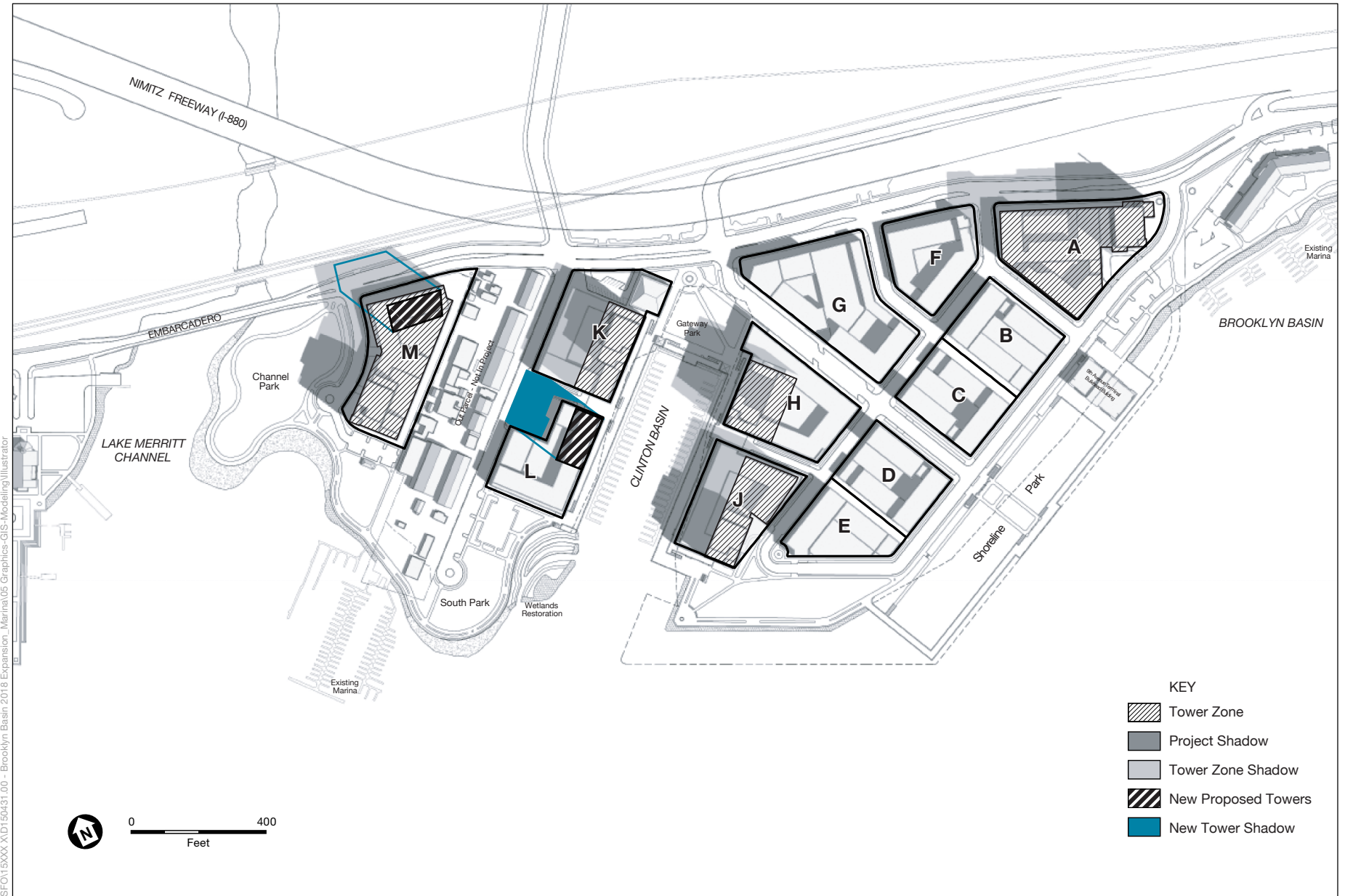


SOURCE: Environmental Vision, 2019

Brooklyn Basin Marina Expansion Project

Figure IV.K-12
September Shadow Patterns: 9 am PDT

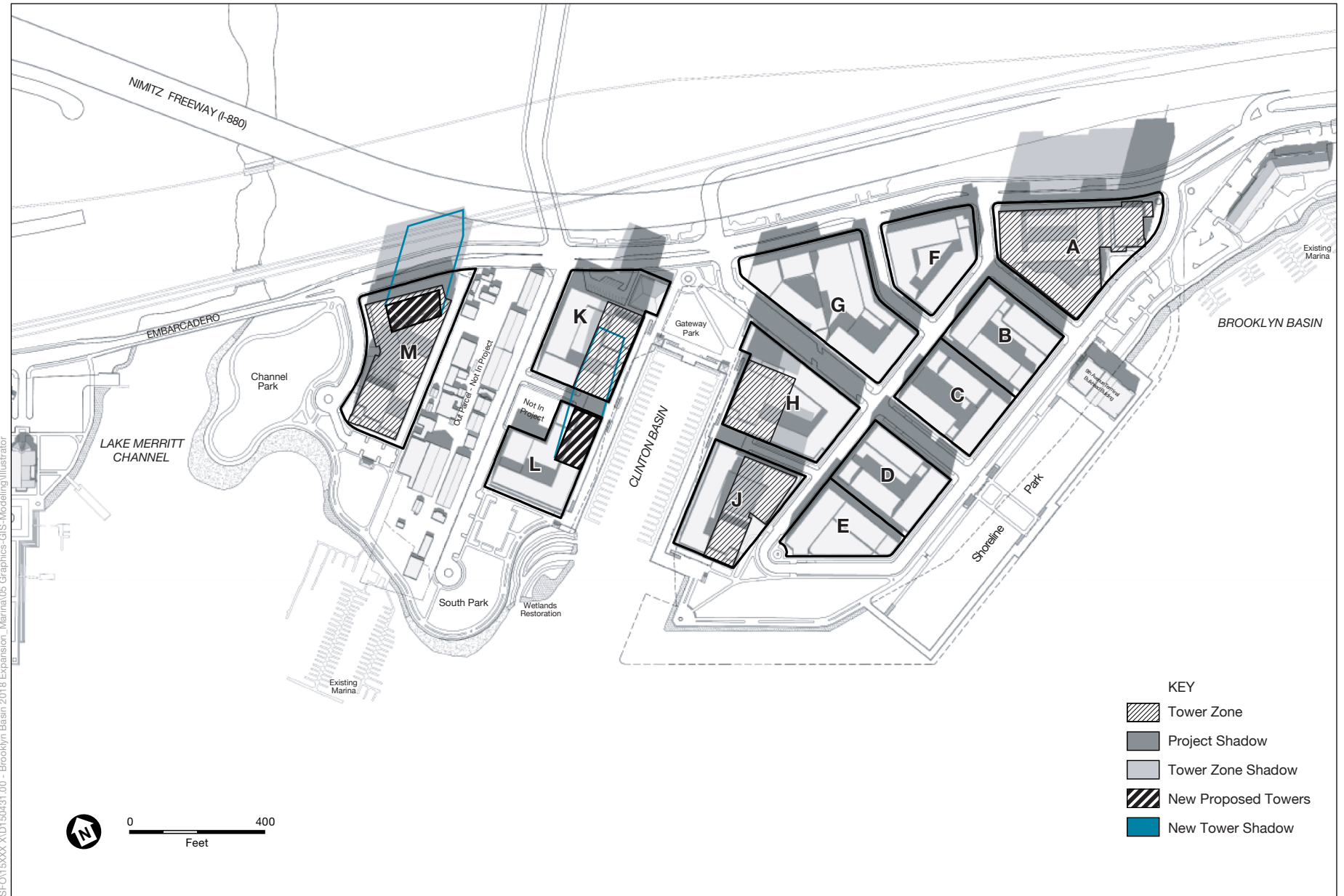




SOURCE: Environmental Vision, 2019

Brooklyn Basin Marina Expansion Project

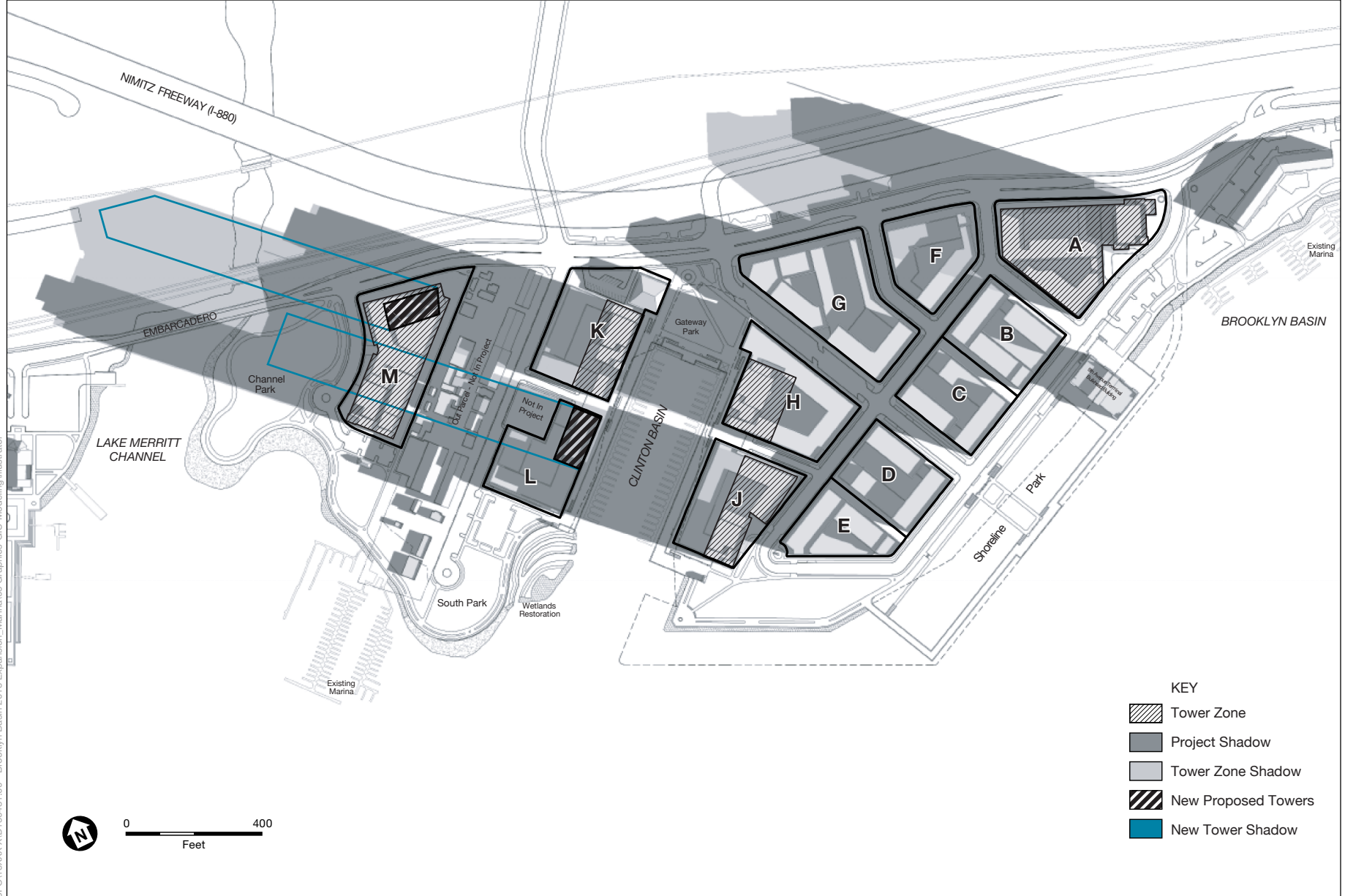
Figure IV.K-13
September Shadow Patterns: 12 noon PDT



SOURCE: Environmental Vision, 2019

Brooklyn Basin Marina Expansion Project

Figure IV.K-14
September Shadow Patterns: 3 pm PDT

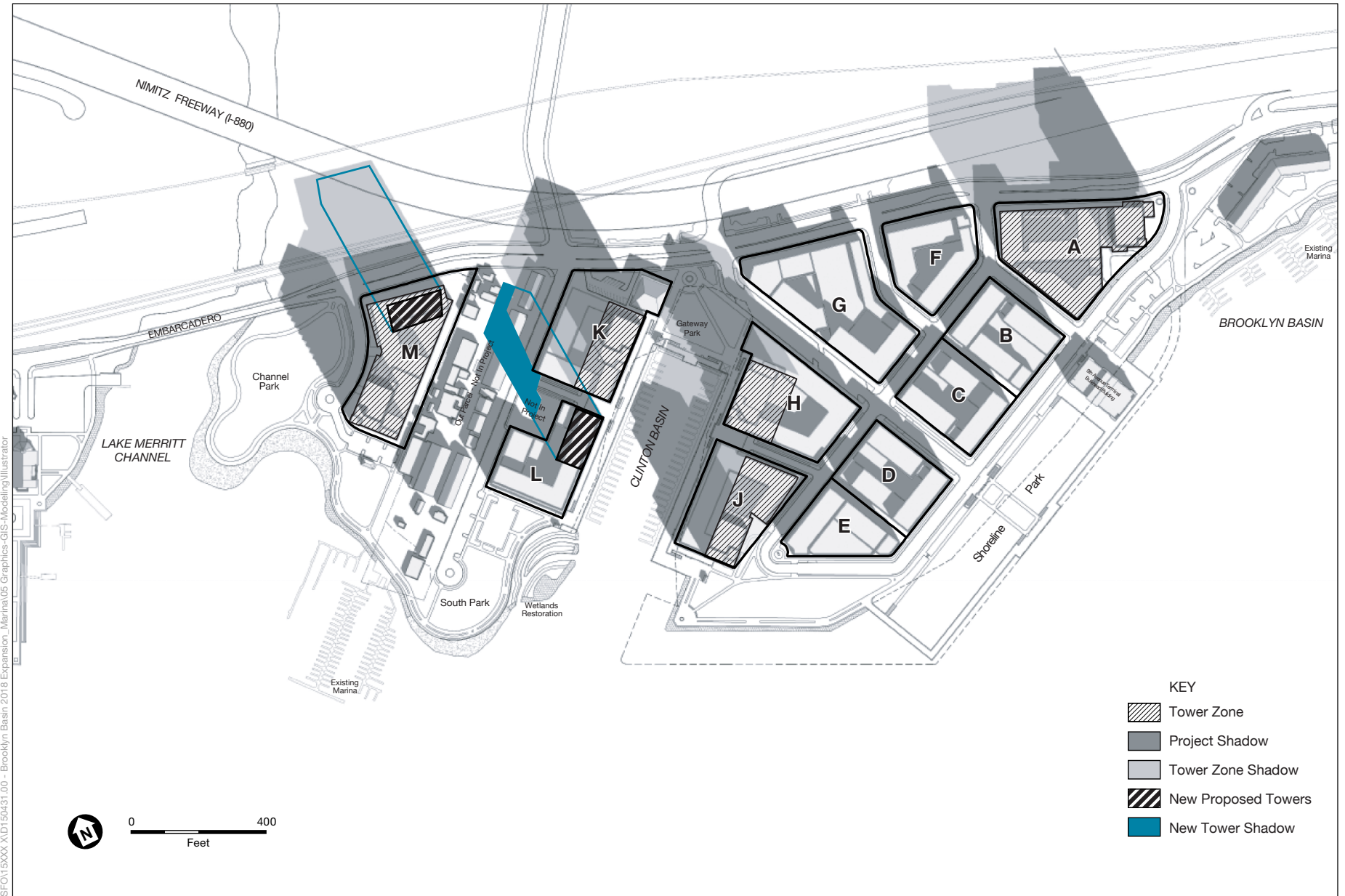


SOURCE: Environmental Vision, 2019

Brooklyn Basin Marina Expansion Project

Figure IV.K-15
December Shadow Patterns: 9 am PST

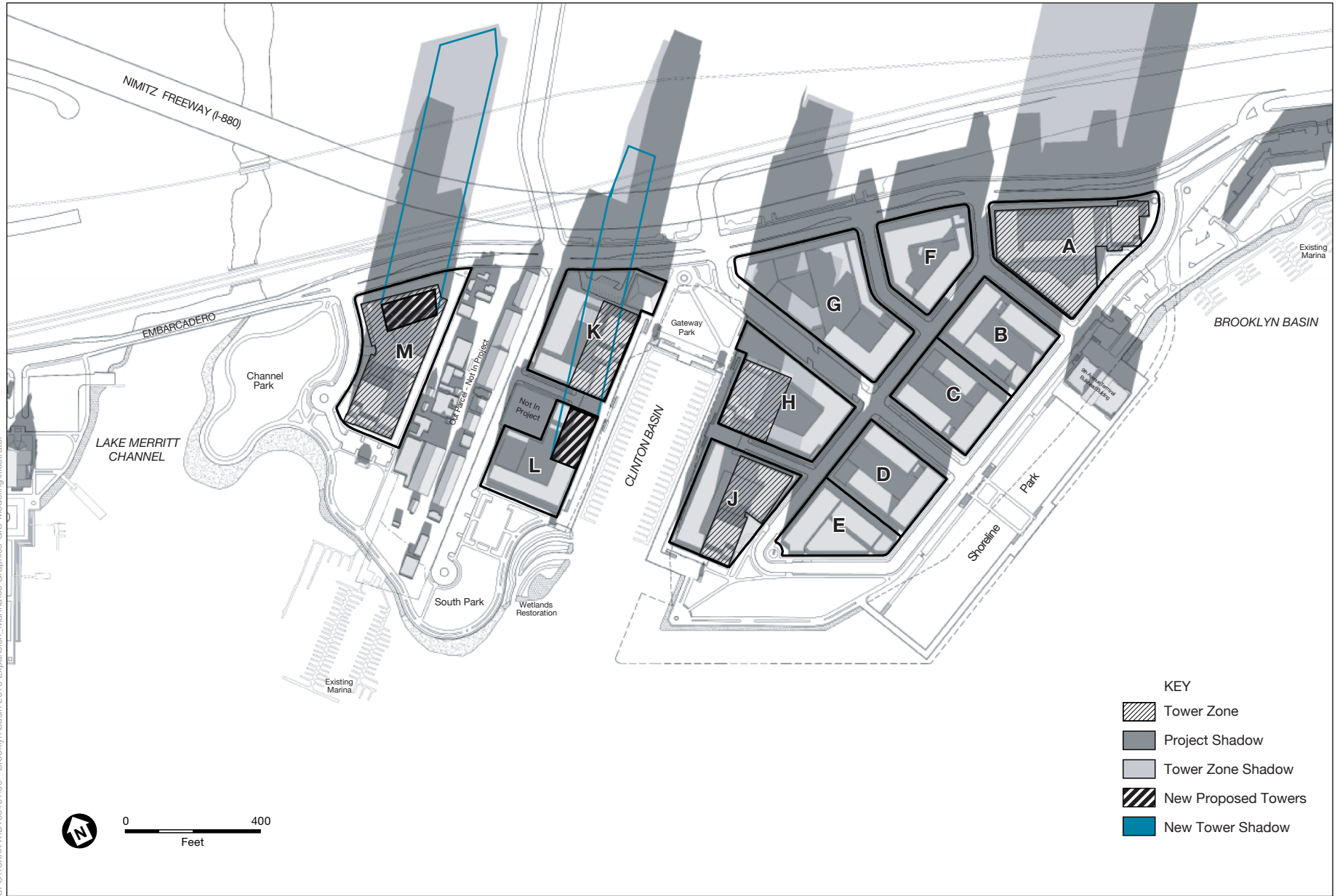




SOURCE: Environmental Vision, 2019

Brooklyn Basin Marina Expansion Project

Figure IV.K-16
December Shadow Patterns: 12 noon PST



SOURCE: Environmental Vision, 2019

Brooklyn Basin Marina Expansion Project

Figure IV.K-17
December Shadow Patterns: 3 pm PST



Impact AES-5: The Project Modifications would require approval of a general plan amendment and rezoning, and would be consistent with the policies and regulations addressing the provision of adequate light to appropriate uses. (Criterion I) (*Less than Significant*)

Although Project Modifications would potentially change the location of one tower potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV equal to decreased building mass in Phase II, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would not include changes to the Approved Project's building envelopes or onshore site plan as analyzed in the 2009 EIR. Consequently, the impacts of light related to the landside development is not reevaluated here. The marina expansion would result in more light, however, the expanded marina overall lighting system would be the same as the lighting system designed for the Approved Project's marinas. As stated above in Impact AES-1, marina lighting would be consistent with the City's Outdoor Lighting Standards, SCA AES-1.

The Project Applicant is seeking an amendment the Estuary Policy Plan (which is part of the General Plan) and zoning code to increase the permitted average residential density in the PWD-4 land use classification and PWD-4 zoning district from 50 to 58 dwelling units per gross acre (see Chapter III, *Project Description*). However, the Project Applicant is not seeking an exception (variance) to any policies or regulations in the General Plan, Planning Code, or Uniform Building Code addressing the provision of adequate light related to appropriate uses. Therefore, the Project Modifications would have a less-than-significant impact with respect to this criterion.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impact from new light and glare is the same as identified in the 2009 EIR (Impact K.5, *less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, "changed circumstances," or "new information" pursuant to CEQA Guidelines Section 15162.

Impact AES-6: The Project Modifications would not create winds that exceed 36 mph for more than one hour during daylight hours during the year. (Criterion J) (*Less than Significant*)

As described in the 2009 EIR, the environment within the project area is windy, and is strongly influenced by the Project site's location on the Oakland Estuary exposed to west, northwest, and south-southeast winds, as well as its large open areas that allow winds to flow unobstructed from the estuary across the site. The site has full exposure to the predominant winds from the Bay, both under the regularly recurring daily and seasonal wind conditions and under storm conditions. The 2009 EIR analysis noted that winds were substantially reduced in the portions of the Project site that contained buildings due to the sheltering effects of the structures. Those structures have since been demolished.

Wind-tunnel testing of the 2009 EIR existing conditions and Approved Project conditions relied on an Approved Project model and simulated wind directions selected to represent the “worst case” with respect to pedestrian level effects for the Project site. Test results showed that the Approved Project would improve overall wind conditions on the Project site. The addition of project structures and towers would reduce the duration of measured hazard exceedences from a total of at least five hours per year under the existing scenario (seven hours, including the estimate for a location at the edge of Ninth Avenue Pier covered by the Ninth Avenue Terminal building at the time) to a total of four hours a year. In addition, the Approved Project was found to substantially reduce the speeds of the extreme winds by about 25 percent. The Approved Project would not create any new hazardous wind conditions that would exceed the CEQA threshold of the 36 mph hazard.

Although Project Modifications would potentially change the location of one tower, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would not alter the circulation plan or building envelopes, footprint, or setbacks approved under the 2009 EIR. However, as noted above, the Project Modifications would potentially change the location of one of the Approved Project towers designated for either Parcel H or J to either Parcel L or M, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV (see Figure III-5). This change would not increase the total number of towers on the Project site, nor would it modify the design parameters associated with the towers on the Project site.

Wind speeds tested at locations surrounding Parcels L and M were either below the threshold of the 36 mph hazard, or were significantly reduced with the addition of the Approved Project structures and towers. Reconfiguring the position of a project towers onto one of these parcels could alter the precise results of wind-tunnel testing but would not change the overall effect of development on the Project site. As with the Approved Project, the Modified Project would reduce the duration of measured hazard exceedences and reduce the speeds of the extreme winds compared with existing wind conditions. Therefore, the Project Modifications would have a less than significant impact related to wind hazard conditions.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the wind hazards is the same as identified in the 2009 EIR (Impact C.6, *less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information” pursuant to CEQA Guidelines Section 15162.

Cumulative Impacts

Cumulative Context

The geographic context used for the cumulative visual quality analysis is the Oakland Estuary and surrounding area, generally Jack London Square to the west and Embarcadero Cove to the east.

Impact AES-7: The Project Modifications, combined with cumulative development in the Project vicinity and citywide, would not result in significant cumulative impact related to scenic vistas, visual character, light sources, shadow, or wind. (*Less than Significant*)

Scenic Vistas, Visual Character, Light and Glare

The 2009 EIR concluded that the Approved Project together with the future Jack London Square Redevelopment Project would add visual interest and well-designed buildings in existing degraded sites in an urban environment. Additionally, these projects would complement other visually prominent existing development in the area, such as The Landing and The Portobello condominiums. This SEIR concludes that the Project Modifications would not result in new adverse impacts to public scenic vistas or to the visual character and quality of the Project site and therefore, would not alter the beneficial effects of the Approved Project identified in the 2009 EIR. Specifically, the marina expansion component would be consistent with the existing maritime character as well as the visual character and quality of the Approved Project's Clinton Basin Promenade and other City waterfront areas. Overall, the Project Modifications would combine with other cumulative development along the waterfront, but the effect would not substantially degrade existing visual quality.

Since the Project Modifications would consist of lighting treatments typical of marinas and would be consistent with City standards for outdoor lighting, the Project Modifications would not substantially increase overall ambient light levels, and would not result in new sources of substantial adverse light or glare impacts. In addition, cumulative projects would be subject to same requirements of the City's Outdoor Lighting Standards, SCA AES-1. Therefore, the Project Modifications would not combine with the potential residual effects of cumulative projects to cause a significant cumulative impact.

Shadow

In terms of shadows, Figures IV.K-6 through IV.K-17 illustrate that the Project Modifications' potential shading effects would fall to areas immediately northwest and north of Parcel L. Other than development approved in the 2009 EIR, no foreseeable development in the immediate area surrounding the Project site would combine with the Project Modifications' shadow effects to cause a significant cumulative impact.

Wind

With respect to cumulative wind effects, future local development surrounding the Project site, is likely to result in no impact or in overall reduction of wind speeds in the vicinity. Overall, with the Approved Project in place, and with minor changes by the Project Modifications, notable decreases in wind speeds would occur at the Project site compared to existing conditions due to

buildings obstructing the existing, relatively uniform wind field and substantially slowing winds from the Oakland Estuary. Thus, there would be no significant cumulative wind impact, nor would the effect of the Project Modifications in combination with other foreseeable projects be cumulatively considerable.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impact to scenic vista and resources is the same as identified in the 2009 EIR (Impact C.6, C.8, and Impact K.5, *less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information” pursuant to CEQA Guidelines Section 15162.

IV.K.4 References

California Office of Public Resources, 2019. *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*. Available: <http://opr.ca.gov/ceqa/updates/sb-743/>. Accessed October 8, 2019.

City of Oakland, 2016. *CEQA Thresholds of Significance Guidelines*. October 17, 2016.

———, 2019. *Solar Permit List*, provided September 24, 2019.

Metropolitan Transportation Commission (MTC), 2019. *Transit Priority Areas (2017)*. July 3, 2019. Available: http://opendata.mtc.ca.gov/datasets/d97b4f72543a40b2b85d59ac085e01a0_0?geometry=-122.306%2C37.762%2C-122.104%2C37.809. Accessed October 8, 2019.

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IV.L Public Services and Recreation

This section presents an analysis of potential impacts on public services and recreation that would result from the Project Modifications described in Chapter III, *Project Description*. The affected environment, regulatory setting, and analysis from the 2009 EIR are relied on to the extent relevant in this Supplemental EIR (SEIR), and are discussed to the extent that they differ from those described in the 2009 EIR. This section analyzes the direct, indirect, and cumulative effects of the Project Modifications; provides modifications (additions, deletions, updates, or other revisions), as needed, to the approved mitigation measures provided in the adopted Final EIR MMRP; identifies any residual effects that may remain following the implementation of such measures; and compares them to the effects analyzed in the 2009 EIR.

IV.L.1 Environmental Setting

Public services, including fire protection/emergency medical services, police protection, public schools, and libraries, along with park and recreation facilities were addressed in the 2009 EIR. As described in Chapter III, *Project Description*, since preparation of the 2009 EIR, there has been substantial and on-going construction of the Approved Project. At the time of the NOP (September 2018), Phase I on-and off-site improvements were constructed. In addition, Phase I park and open space improvements and development on Parcel B were under construction. Final Development Permits (FDPs) for Affordable Housing on Parcels F and A, FDPs for Parcels C and G, and an FDP for Phase II through IV park and open space improvements had been approved. These changes to the Project site are considered a part of the existing conditions and environmental baseline for this SEIR analysis. Since publication of the NOP, additional FDPs for Phase I and II parcels have been submitted and development proposals for all sites within those phases are either under review, approved, under construction, or operational (see Chapter III, *Project Description*). However, there have been no meaningful changes to the public services setting relevant to the SEIR analysis. The following discussion provides an update to public services by service type, since preparation of the 2009 EIR.

Fire Protection and Emergency Medical Services

As identified in the 2009 EIR, the Oakland Fire Department (OFD) provides fire protection and local emergency medical response services to the City of Oakland (City) and the Port of Oakland (Port). The nearest OFD stations to the Project site are Stations 4 and Station 12 (approximately 1 mile from the Project site), along with Station 1 and Station 3 (approximately 2 and 3 miles away, respectively). In 2016, City of Oakland residents voted to pass Capital Improvement Measure KK Bonds, which include funds to remodel Station 12 and to replace Station 4 and Station 29 at locations to be determined, but within the same service area (OFD, 2019).

In the 2017-2018 fiscal year, OFD responded to 70,132 emergency and non-emergency calls in the City, compared to 58,484 identified in the 2009 EIR (OFD, 2019). Consistent with the 2009 EIR, the OFD maintains an official response time goal of response within seven minutes of notification, 90 percent of the time. Service can usually be provided within this time-frame to areas located within 1.5 miles of a fire station (City of Oakland, 2012a). In 2018, average

response times to 135 incidents in the Jack London area resulted in a seven-minute response time 67 percent of the time. OFD reportedly experiences delays in responding to incidents along the waterfront (Deccan International, 2019).

Police Protection

As discussed in the 2009 EIR, the Project is located in Oakland Police Department (OPD) beats 19X and 1X. Since preparation of the 2009 EIR there has been no substantial change to OPD facilities or services relevant to this analysis. While overall police staffing levels remain similar to what was reported in the 2009 EIR, the citywide population has increased. As of January 30, 2019, there were 747 of 792 approved sworn and 317 of 391 professional staff (civilian) positions filled in the OPD (OPD, 2019). This results in an officer to resident ratio of approximately 1.8 per 1,000 residents.¹ This ratio is slightly less than that identified in the 2009 EIR of 2.0 per 1,000 residents.

In 2017, the OPD received 626,815 total calls including 187,553 911-calls (OPD, 2017). As disclosed in a 2014 audit of the OPD, the OPD has response times to its 911 calls that are below industry standards due to understaffing and underfunding in its dispatch center. OPD’s Citywide response times for 2018 are presented in **Table IV.L-1** below. Based on the rates provided in the table, the OPD response times have increased compared with what was identified in the 2009 EIR.

**TABLE IV.L-1
 2018 OPD RESPONSE TIMES CITYWIDE**

Call Priority ^a	Average Response Time (minutes)	Median Response Time (minutes)	Lowest Median Monthly Response Time (minutes)	Highest Median Monthly Response Time (minutes)
Priority Code 1	7.9	7.8	7.3	9.0
Priority Code 2	71.3	70.3	54.5	88.1

NOTES:

^a Response times for Priority 3 calls are not available.

SOURCE: OPD, 2019.

Public Schools

The Oakland Unified School District (OUSD) is divided into seven districts within the city limits. The Project site is located in districts 2 and 3. Currently, OUSD administers 87 OUSD District-run Schools and 34 District-Authorized Charter Schools. Since preparation of the 2009 EIR, there have been no changes to OUSD facilities or services relevant to this analysis.

The 2009 EIR identified a declining enrollment in 2001/2002. Since preparation of the 2009 EIR, OUSD has experience fluctuating levels of enrollment with a peak level of enrollment in the 1999-2000 school year and a low enrollment in the 2007-2008 school year. Enrollment remained level from 2008 to 2013 and increased from 2013-2018 (DOE, 2019). For example, total enrollment for the 2018-2019 year was 50,202, which represents an over 2,000 student increase

¹ Based on a population of 428,827 within the City of Oakland in 2018 (California Department of Finance, 2018).

from 48,077 in the 2014-2015 year (DOE, 2019). Even with this increasing enrollment, OUSD currently does not have enough students enrolled to fill the existing number of schools and there are approximately 11,000 seats empty in OUSD District Schools. OUSD is in the process of drafting a Citywide Plan to address this issue and promote the sustainability of public schools (OUSD, 2019).

Other Public Facilities

Libraries

As addressed in the 2009 EIR, the Oakland Public Library (OPL) provides library services in the City of Oakland and includes a main library, an African American Museum, and 16 branch locations throughout the City. Since preparation of the 2009 EIR, the 81st Avenue Library branch was added to OPL to serve the southern portions of the City (OPL, 2019a). The Oakland Main Library and Asian Branch Library are closest to the Project site and would be the most likely to provide services to project residents.

Other changes since preparation of the 2009 EIR include that the OPL system now provides an increasing supply of electronic materials. In addition, the OPL no longer has performance standards tied to levels of demand. OPL existing staff levels are adequate for current demand for library services. However, OPL facilities can be inconsistent in quality, and some facilities are insufficient for optimal public service due to space limitations and heavy-use (OPL, 2019b).

Maritime Emergency Services and Law Enforcement

Maritime emergency services and law enforcement within the San Francisco Bay and Oakland Estuary are provided by multiple agencies, as described below.

United States Coast Guard (USCG)

The USCG is the coastal defense and maritime law enforcement branch of the U.S. Armed Forces. The USCG conducts search and rescue operations, casualty investigations, commercial vessel inspections, marine event permitting, patrols, commercial vessel safety boardings, law enforcement boardings, and issues violations. Additionally, the USCG operates the San Francisco Bay Vessel Traffic Service (VTS), which coordinates the safe transit of vessels in San Francisco Bay in an effort to prevent accidents. The USCG sector San Francisco provides federal jurisdiction over navigable waters of the San Francisco/San Pablo Bay and the Sacramento-San Joaquin River Delta (USCG, 2019a).

Oakland Police Department (OPD)

The OPD has a Marine Unit, which handles maritime law enforcement and emergency response. The OPD Marine Unit coordinates and trains with multiple agencies such as the USCG and the Bay Area ferry agencies. Additionally, the Marine Unit works on salvaging and cleanup projects such as removing dilapidated and abandoned boats from the Oakland Estuary.

Alameda County Sheriff's Office

The Alameda County Sheriff's Office Marine Patrol Unit provides law enforcement services on Alameda County's waterways and assists other local, state, and federal agencies in marine operations, boating safety, and law enforcement. The Marine Patrol Unit includes marine boat patrols, a personal watercraft response unit, and an underwater explosive recovery team (Alameda County Sheriff, 2019).

Water Emergency Transportation Authority (WETA)

WETA is authorized to coordinate Bay Area emergency response in the event of an emergency, which disrupts the regional transportation system. WETA can also provide emergency water transportation services under its own authority in order to respond to incidents that threaten the safety of Bay Area populations. WETA has an Emergency Response Plan to guide WETA and other agency staff to implement in the event of an emergency disruption to the transportation system (WETA, 2016).

Parks and Recreational Facilities

The Oakland General Plan *Open Space, Conservation and Recreation Element* includes recreational resource goals of 4 acres per 1,000 residents for local-serving parks and 10 acres per 1,000 residents for overall parkland. At the time the 2009 EIR was prepared, the local-serving park and overall parkland ratios were estimated to be 1.33 acres and 8.26 acres per 1,000 residents respectively.

In November 2002, Oakland voters passed a 198.25-million-dollar bond measure (Measure DD) focused on waterfront improvements at Lake Merritt and the Estuary. Since preparation of the 2009 EIR, recreational resources available to Oakland residents have increased in part as a result of these funds. Specifically, since the preparation of the 2009 EIR, Measure DD funds have been allocated for improvements at Lake Merritt, the Estuary Waterfront/Bay Trail, (access parks, and clean up), the connection between Lake Merritt and the Estuary (Lake Merritt Channel), and in support of the recently completed East Oakland Aquatic, Sports, and Recreation Facility (at Ira Jinkins Park) (City of Oakland, 2012b). Overall parkland ratio is estimated to be 9.01 acres respectively per 1,000 residents.² In the greater Downtown area, the local-serving park ratio is estimated to be 3.6 acres per 1,000 residents (City of Oakland, 2019). The City's desired eventual ratio of overall and local-serving parks acreage to resident is not intended to be a project-specific performance measure, and it is the City's goal, not a regulatory requirement.

IV.L.2 Regulatory Setting

Since the preparation of the 2009 EIR, there have been minor updates to the General Plan and Municipal Code, which are described below, and in additional detail under Section IV.A *Land Use, Plans, and Policies*. There have been no other changes to the regulatory setting with respect to the analysis of public services resources. Due to the marina expansion and use of new water taxi service, this SEIR includes additional regulatory setting detail related to maritime services.

² Based on a population of 428,827 within the City of Oakland in 2018 (California Department of Finance, 2018) and a total parkland acreage of 3,865 acres, which includes OPRYD, East Bay Regional Park District, and Port of Oakland parks and open space acreage within the City of Oakland (Trust for Public Land, 2018).

Federal

United States Coast Guard (USCG)

The Oakland Inner Harbor Channel is part of a federal navigation channel. Navigation by any vessel, including all recreational motorized and non-motorized watercraft, in the channel is regulated by the Inland Navigation Rules and Regulations of the U.S. Coast Guard (U.S. Coast Guard, 2019b).

State

Senate Bill 50

Although no significant changes to Senate Bill 50 (SB 50) have occurred since preparation of the 2009 EIR, this description is included for reference. The Leroy F. Greene School Facilities Act of 1998, or SB 50, authorizes school districts to levy developer fees pursuant to Section 17620 of the State Education Code to finance the construction or reconstruction of school facilities, and restricts the ability of local agencies to deny project approvals on the basis that public school facilities (classrooms, auditoriums, etc.) are inadequate. School impact fees are collected at the time when building permits are issued. Payment of school fees is required by SB 50, which amended Section 65996 of the California Government Code, for all new development projects and is considered full and complete mitigation of any school impacts. School impact fees are payments to offset capital cost impacts associated with new developments, which result primarily from costs of additional school facilities, related furnishings and equipment, and projected capital maintenance requirements. As such, agencies cannot require additional mitigation for any impacts on school facilities or due to the inadequacy of school facilities.

Local Plans, Ordinances and Policies

City of Oakland General Plan

With the exception of the plans described below, there have been no changes to the General Plan with respect to public services and recreation that are relevant to this SEIR analysis.

Oakland Municipal Code

Oakland Municipal Code, Chapter 15.74, Transportation and Capital Improvement Fees, went into effect in the City of Oakland on September 1, 2016. This establishes Citywide transportation and capital improvements impact fees in the City of Oakland to assure that development projects pay their fair share to compensate for the increased demand for transportation and capital improvements infrastructure generated by development projects within the City. Funds deposited into the Capital Improvements Impact Fee Fund, are used to pay for projects that are required for fire, police, and library services.

Oakland Standard Conditions of Approval (SCAs)

The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) in 2008, and they have since been amended and revised several times.³ Like other regulations, the SCAs apply to projects in the City regardless of their CEQA impacts. The SCAs are not mitigation measures and therefore are not listed as mitigation measures. If the Project Modifications are approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project Modifications. With implementation of the SCAs, some of the mitigation measures from the 2009 EIR are no longer needed, and this SEIR notes when that occurs.⁴ There are no SCAs relevant to public services and recreation.

IV.L.3 Impacts and Mitigation Measures

Significance Criteria

The City of Oakland has established thresholds of significance for CEQA impacts which incorporate those in Appendix G of the CEQA Guidelines (City of Oakland, 2016). Based on these thresholds, the Project Modifications would have a significant impact on the environment if it would:

- A. Result in substantial adverse physical impacts associated with the provision of new of physically altered governmental facilities, or the 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:
 - i. Fire protection;
 - ii. Police protection;
 - iii. Schools;⁵ or
 - iv. 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; or
- C. Include recreational facilities or require the construction or expansion of recreational facilities, which might have a substantial adverse physical effect on the environment.

Methodology

Consistent with CEQA guidance, the SEIR is required to evaluate only the changes in the project, circumstances, or new information that could give rise to new significant environmental impacts or substantially more severe environmental impacts than were analyzed the SEIR as compared to that contained in the 2009 EIR. As such, in accordance with CEQA Guidelines Section 15163, this SEIR contains information necessary to disclose environmental impacts from the Project

³ A revised set of SCAs was recently published by the City of Oakland in December, 2020.

⁴ Where SCAs replace mitigation measures for the Project Modifications, such replacement does not indicate that the Project Modifications would have new or substantially more severe environmental impacts than the Approved Project.

⁵ Although impacts to schools are exempt from CEQA review and mitigation (see SB 50) the impacts should nevertheless be analyzed.

Modifications that were not analyzed in the 2009 or would be substantially more severe than anticipated by the 2009 EIR. This SEIR evaluates the Project Modifications using the City's current methodology, significance criteria, and thresholds. The analysis relies on the environmental baseline, which is the physical circumstances existing at the time the NOP was published in September 2018, and also compares the Project Modification to the Approved Project to determine if the modifications create any new or substantially more severe impacts on the environment. This SEIR discusses new City requirements and analysis methods established since preparation of the 2009 EIR, such as the incorporation of the City's SCAs, which would be required conditions of approval for the Project Modifications.

Changes that have occurred to the environmental and regulatory setting since preparation of the 2009 EIR are described above. The City's CEQA Thresholds of Significance for public services and recreation have not changed since preparation of the 2009 EIR. Therefore, the impact discussions and analyses below focus on the activities associated with the Project Modifications and the potential for public services and recreation impacts associated with those activities that were not previously disclosed in the 2009 EIR.

Impacts

Fire Protection

Impact PS-1: The Project Modifications would not involve or require new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency medical services. (Criterion A.i) (*Less than Significant*)

As described in Section IV.J, *Population and Housing*, the Project Modifications would result in an increase of approximately 1,007 residents onsite which represents an approximately 0.2 percent increase relative to the 2018 citywide population of 428,827. Although this population increase could result in periodic and permanent increases in demand for fire protection and emergency medical services, the increase in demand would be minimal and would not require new or physically altered governmental facilities in order to maintain response times. In addition, the Project Modifications would occur on the same onshore Project site as the Approved Project, though expanded by approximately 10 acres of water surface to accommodate the expanded marina, and include no changes to the Approved Project's circulation system, building locations, or emergency access. Therefore, the Project Modifications' impacts related to the new or physically altered fire facilities would be less than significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The 2009 EIR evaluated fire and emergency medical services impacts under Impact L.2 (*less than significant*). The conclusion regarding the potential for the Project Modifications to result in impacts to fire services is substantially the same as that identified in the 2009 EIR. No new significant environmental effects or a substantial increase in the severity of previously identified significant

effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Police Protection

Impact PS-2: The Project Modifications would not result in an increase in demand for police services that would require new or physically altered police facilities in order to maintain acceptable service ratios, response times, or other performance objectives. (Criterion A.ii) (*Less than Significant*)

As described above, the Project Modifications would result in an increase of approximately 1,007 residents onsite which represents an approximately 0.2 percent increase relative to the citywide population of 428,827. A population increase could result in an increase in reported crime and calls for service. However, the addition of approximately 1,007 new residents would not change the current officer to resident ratio of 1.8 per 1,000 residents Citywide (OPD, 2019, and California Department of Finance, 2018).⁶ Although the OPD has had difficulty meeting its response time goals in recent years, this population increase would not impact the ability of the OPD to provide police services to the Project site and surrounding area such that it would trigger a need to build new or expanded police facilities based on increased demand. Additionally, the Project Modifications would not alter safety features of the Approved Project, such as safety lighting which would decrease the likelihood of activity that would require police response. Therefore, Project Modifications’ impacts related to the new or physically altered police facilities would be less than significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The 2009 EIR evaluated police services impacts under Impact L.1 (*less than significant*). The conclusion regarding the potential for the Project Modifications to result in impacts to police services is substantially the same as that identified in the 2009 EIR. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

⁶ Based on a population of 428,827 within the City of Oakland in 2018 (California Department of Finance, 2018). (792 approved sworn officers/434.827 thousand residents = 1.8)

Public Schools

Impact PS-3: The Project Modifications would not result in an increase in new students for public schools at a level that would require new or physically altered school facilities in order to maintain acceptable performance objectives. (Criterion A.iii) (*Less than Significant*)

At the time of the 2009 EIR, to estimate the number of students generated by new housing development, OUSD relied on a statewide average student yield factor of 0.7 K-12 students per new residential unit. As a part of their 2016 School Facility Justification Report, OUSD relied on the 2010 census data to establish a student generation rate of 0.247 per new residential unit. Considering the current student generation rate, the Project Modifications' proposed 600 additional residential units could introduce approximately 148 K-12 students into OUSD. As described above, as of the 2018-2019 school year, the OUSD has approximately 11,000 vacant seats across OUSD schools. For this reason, the approximate 148 students that could be generated by the Project Modifications could be accommodated within OUSD's existing facilities.

As described above under Regulatory Setting, the Project Modifications would be required to comply with SB 50 and California Government Code Section 65996, which fully mitigates the potential effect of new student population that may be generated by a project on public school facilities. School districts are authorized under California Government Code Section 65996 and Education Code 17620 to levy a development fee on new residential and commercial projects to offset costs associated with new students in the districts as a result of new development. Section 65996 states that the payment of school impact fees that may be required by any state or local agency is deemed to constitute full and complete mitigation for school impacts from development. The Project Applicant would be required to pay a developer fee to offset the cost of expanding or constructing new school facilities and therefore, the Project Modifications' impacts related to the new or physically altered school facilities would be less than significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The 2009 EIR evaluated impacts to public schools under Impact L.3 (*less than significant*). The conclusion regarding the potential for the Project Modifications to result in impacts to public schools is similar but less than that identified in the 2009 EIR. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, "changed circumstances" or "new information," pursuant to CEQA Guidelines Section 15162.

Libraries

Impact PS-4: The Project Modifications would not result in an increase in demand for libraries at a level that would require new or physically altered library facilities in order to maintain acceptable service ratios. (Criterion A.iv) (*Less than Significant*)

As described above, the Project Modifications would result in an increase of approximately 1,009 residents onsite, which represents an approximately 0.2 percent increase relative to the citywide population of 428,827. A population increase would result in an increased demand for library services. The Main Library, and West Branch and Asian Branch libraries are equidistant to the Project site, and provide services such as e-books that serve their constituents remotely online and thereby reduce the burden on physical facilities. Since there are multiple library facilities within one-mile of the Project site, remote online library services are available, and there would be an incremental increase in population resulting from the Project Modifications, new or expanded library facilities would not be required. Therefore, the impact on library services due to the Project Modifications would be less than significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The 2009 EIR evaluated impacts to library services under Impact L.5 (*less than significant*) and the conclusion regarding for the Project Modifications is substantially the same as that identified in the 2009 EIR. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Maritime Emergency Services and Law Enforcement

Impact PS-5: The Project Modifications would not result in an increase in demand for maritime emergency services and law enforcement at a level that would require new or physically altered governmental facilities to maintain acceptable performance objectives. (Criterion A.iv) (*Less than Significant*)

The Project Modifications would add 158 recreational boat slips to the renovated Project marinas. Marina resulting in the addition of up to 158 recreational boats to the Oakland Estuary. All vessels in the Oakland Estuary would be required to comply with the USCG’s Inland Navigation Rule 9 as well as all of the USCG’s Inland Navigation Rules and Regulations. This would minimize navigational conflicts between small vessels, ferries, large commercial vessels, and other vessels. Additionally, the marina would include additional lighting along the docks, which would provide additional security for boats located in the marina.

Nonetheless, the additional boat slips and associated increase in boating activity on the estuary and the bay could result in an increase in demand for maritime emergency services and law enforcement. Maritime emergency response and law enforcement is coordinated between the

local and federal agencies identified in the *Environmental Setting* above. Although the Project Modifications would result in increase in demand for services, the increase in demand would be incremental, would be supported by existing USCG facilities that serve the entire region, and would not require new or physically altered governmental facilities. As a result, the Project Modifications would be adequately served by maritime emergency services and law enforcement, and would not require additional new or physically altered governmental facilities. Impacts would be less than significant.

Mitigation: None required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The Modified Project would result in a new, less-than-significant impact not identified for the Approved Project in the 2009 EIR. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Parks and Recreational Facilities

Impact PS-6: The Project Modifications would not result in an increase in demand for parks and recreational services at a level that would generate substantial physical deterioration or require the construction of new or physically altered facilities in order to maintain service ratios. (Criteria B and C) (*Less than Significant*)

The Project Modifications would not alter the approximately 31 acres of public open space under the Approved Project. The Project Modifications would not result in any net loss of open space and would increase the number of recreational boat slips available. The Project Modifications would result in an incremental increase in population. The increased demand for parks and recreational facilities would be substantially absorbed by the public open space provided by the Approved Project. Therefore, the Project Modifications would not substantially increase or accelerate the physical deterioration or degradation of existing general recreational resources. Therefore, the increased demand for recreational resources associated with the Project Modifications would be minimal and would be accommodated by the parks approved as a part of the Approved Project. The Project Modifications’ minimal increase in demand for parks and recreational facilities would not require new or physically altered parks or recreational facilities. Impacts would be less than significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The 2009 EIR evaluated recreational services impacts under Impact L.4 (*less than significant*). The conclusion regarding the potential for the Project Modifications to result in impacts to recreational facilities is substantially the same as that identified in the 2009 EIR. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would

result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Cumulative Impacts

Cumulative Context

The cumulative context for public services and recreation consists of the City’s current Major Projects List (included as Appendix B) since cumulative effects must be considered relative to the service populations and demand for public services in the City of Oakland.

Impacts

Impact PS-7: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project site, would not result in significant cumulative impacts with respect to public services including recreation. (*Less than Significant*)

As analyzed throughout this section, the Project Modifications would not result in a significant increase in demand for public services or recreational facilities that would necessitate the construction of new or modified facilities. As described above, there are existing deficiency of OFD response times to the waterfront, deficiency of OPD response times, and the City of Oakland is not currently attaining its recreational and parkland-service-ratio goals. Therefore, the existing cumulative impacts to fire protection and emergency medical response services, police protection services, and parks and recreational facilities may be significant and are discussed below. There are no identified constraints of maritime law enforcement or library services that would require additional analysis. Consequently, the Project Modifications could not combine with or otherwise contribute to a cumulative impact related to these criteria.

Fire Protection and Emergency Medical Services

Cumulative development in the Project vicinity and Citywide would generate a need for additional fire protection and emergency medical response services, adding to the existing deficiency of OFD response times to the waterfront. However, as part of the City's review of project plans, the OFD provides comments to ensure that fire prevention measures and safety measures are incorporated into each project. This review has been conducted for most past projects, for all present projects, and will be undertaken for all reasonably foreseeable future development, including the development under the Modified Project. The requirements imposed through this review process; such as automatic sprinklers, fire resistant construction, adequate water supply and pressure, among other requirements; reduces demand for fire protection and emergency medical services. In addition, as a condition of approval, the Project Applicant is required to meet certain standards and requirements regarding fire hydrants, sprinkler systems, entry gate access, standpipes smoke detectors, a comprehensive fire alarm system, and an Emergency Response Protocol Plan; all of which have a beneficial effect on the safety of the Project site (City of Oakland, 2014).

Police Protection

In addition to the Project Modifications, population associated with other past and reasonably foreseeable future housing development projects in the City of Oakland could increase demand for police services at a time when OPD is not meeting response time goals. As part of the City's review of project plans, the OPD reviews projects to ensure that preventive design measures associated with landscaping placement, outdoor lighting, security alarms and door locks, and the need for a site-specific security plan are properly addressed to enhance security. This review has been conducted for most past projects, for all present projects, and will be undertaken for all reasonably foreseeable future development, including the development under the Modified Project. The performance standards imposed through this process reduces the demand for police services and thus the potential need for new or expanded facilities. In addition, as a condition of approval, the Project Applicant is required to develop a Site Security and Management Plan in coordination with the OPD, which would address site security and personnel staffing, management, lighting, and emergency protocol; all of which have public safety beneficial effects (City of Oakland, 2014).

Beneficial Effect on Police and Fire Protection and Emergency Medical Services

The 2009 EIR found cumulative projects, including the Approved Project, have had and would continue to have beneficial effects on Police and Fire Protection and Emergency Medical Services. While it is common to correlate population increases with increased demand for protection services; increased employment, economic activity, public activity, surveillance, and improved site access resulting from large-scale mixed-use development have a beneficial effect on the safety of previously underused areas with low daytime and nighttime population. With higher intensity uses that increase daytime and nighttime activities; incidence of vagrancy and arson could decline. Development that complies with fire and other safety requirements may improve existing conditions and reduce public service impacts.

Additionally, projects provide an increased economic base for the City through increased tax revenue, thereby creating greater financial resources for police or fire protection and emergency medical response services. As development under the cumulative plans progresses, additional funds would be contributed by development projects to the Capital Improvements Impact Fee Fund (per Oakland Municipal Code, Chapter 15.74), which could be used to develop additional facilities for police and fire protection and emergency medical response. Potential capital improvement projects using funds from the Capital Improvements Impact Fee Fund would undergo environmental review as they are identified.

Therefore, although the Project Modifications would increase onsite population, in the context of the Approved Project and surrounding cumulative development, the overall cumulative effect is likely to increase safety in the project area through the development of an active mixed use neighborhood and increased tax revenue. The Project Modifications would not increase demand to the level that would require new or significantly altered public facilities and therefore would not have a cumulatively considerable contribution to any existing cumulative impacts on police services or fire protection and emergency medical services. Moreover, should any new or altered facilities be required as a result of cumulative development in the future, mitigation measures

imposed through the CEQA review process and the City's SCAs likely would reduce any potential impacts to a less-than-significant level.

Park and Recreational Facilities

The Project Modifications would result in an increase in demand for recreational facilities. While the Project Modifications would contribute to the existing and anticipated future deficiency, the development of additional public open space is included in cumulative development plans and projects, particularly for the Oakland Waterfront Ballpark District Project and Downtown Oakland Specific Plan. As development under the cumulative plans and projects in the City progress, additional funds would be contributed by development projects to the Capital Improvements Impact Fee Fund (per Oakland Municipal Code, Chapter 15.74) which could be used to increase the amount of parkland in the City. Capital improvement projects involving parks and recreational facilities would undergo environmental review as they are identified, and appropriate measures would be identified and implemented as applicable to reduce any construction and/or operational effects of those facilities. Additionally, the Project Modifications would not reduce the 31 acres of public open space that will be developed under the Approved Project. The Project Modifications would not result in any net loss of open space and would increase the number of recreational boat slips available. While the Project Modifications would result in an incremental increased demand for parks and recreation facilities, this contribution to the cumulative impact to parkland would not be significant. Therefore, the Project Modifications would not have a cumulatively considerable contribution to cumulative impacts on recreational resources.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The 2009 EIR addressed cumulative public service impacts under Impact L.6 (*less than significant*). The conclusion regarding the potential for cumulative public service impacts is substantially the same as that identified in the 2009 EIR. No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

IV.L.4 References

- Alameda County Sheriff's Office, 2019. *Personal communication with Sargent Robert Brandt, Alameda County Sheriff's Office, Marine Unit, July 30, 2019.*
- California Department of Finance, 2018. *E-1 Population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2017 and 2018*, May 2018.
<http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-1/>, accessed March 5, 2019.
- City of Oakland, 2012a. *Oakland General Plan Safety Element*. Adopted 2004, Amended 2012.
<http://www2.oaklandnet.com/oakca1/groups/ceda/documents/webcontent/oak035217.pdf>.
Accessed October 11, 2019.

- , 2012b. *Oakland Trust for Clean Water & Safe Parks, Measure DD, Project Status Summary*, Revised December 20, 2012. Available: <http://www2.oaklandnet.com/Government/o/PWA/o/EC/s/MeasureDD/OAK022503>. Accessed October 14, 2019.
- , 2014. *Staff Report, Case File Number: DA06011, PUD-06010-PUDF01, Exhibit C: Oak to Ninth Mixed Use Development Conditions of Approval*, November 5, 2014.
- , 2016. *CEQA Thresholds of Significance Guidelines*. October 17, 2016.
- , 2019. *The Downtown Oakland Preliminary Draft Plan*, January 16, 2019. Available: https://cao-94612.s3.amazonaws.com/documents/DOSP-Preliminary-Draft-Plan_011619_rev_reduced.pdf. Accessed March 5, 2019.
- Deccan International, 2019. *Baseline Performance for Oakland Fire Department: January 2018 - December 2018*, April 23, 2019.
- Department of Education (DOE), 2019. *DataQuest- 2018-2019 Enrollment by Grade Oakland Unified Report (01-61259)*. Available: <https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=0161259&aggllevel=district&year=2018-19>. Accessed July 10, 2019.
- Oakland Fire Department (OFD), 2019a. *OFD Responses to ESA Request for Information, prepared by Deputy Chief Melinda Drayton, Support Services Division*, February 4, 2019.
- Oakland Police Department (OPD), 2017. *Oakland Police Department. 2017 Annual Report*. Available: <https://assets.documentcloud.org/documents/5691907/Oakland-Police-Department-Annual-Report-2017.pdf>. Accessed July 12, 2019.
- , 2019. *OPD Responses to ESA Request for Information*, March 7, 2019.
- Oakland Public Library (OPL), 2019a. *Locations and Hours*. Available: <http://www.oaklandlibrary.org/>.
- , 2019b. *OPL Responses to ESA Request for Information – Oakland Libraries*, February 2, 2019.
- Oakland Unified School District (OUSD), 2019. *A Citywide Plan for Oakland Schools*. Available: <https://www.ousd.org/site/default.aspx?PageType=3&DomainID=4813&ModuleInstanceID=26172&ViewID=6446EE88-D30C-497E-9316-3F8874B3E108&RenderLoc=0&FlexDataID=26486&PageID=16608>. Accessed July 10, 2019.
- San Francisco Bay Area Water Emergency Transportation Authority (WETA), 2016. *San Francisco Bay Area Water Emergency Transportation Authority Emergency Response Plan*, March 2016. Available: <https://weta.sanfranciscobayferry.com/sites/default/files/weta/publications/WETAEmergencyResponsePlan030316.pdf>. Accessed July 16, 2019.
- Trust for Public Land, 2018. *Oakland, CA City Characteristics*. Available: https://www.tpl.org/sites/default/files/city3/city3/tpl.OAK.8_16_18.pdf. Accessed March 5, 2019.
- United States Coast Guard (U.S. Coast Guard), 2019a. *Coast Guard Sector San Francisco Fact Sheet*. Available: <https://www.pacificarea.uscg.mil/Our-Organization/District-11/District-Units/Sector-San-Francisco/Area-of-Responsibility/factSheet/>. Accessed March 8, 2019.

———, 2019b. *Amalgamated International - U.S. Inland Navigation Rules*. Available: <https://www.navcen.uscg.gov/?pageName=NavRulesAmalgamated#rule1>. Accessed February 25, 2019.

IV.M Utilities and Service Systems

This section presents an analysis of potential impacts on utilities and service systems that would result from the Project Modifications, described in Chapter III, *Project Description*. The affected environment, regulatory setting, and analysis from the 2009 EIR are relied on to the extent relevant in this Supplemental EIR (SEIR), and are discussed to the extent that they differ from those described in the 2009 EIR. This section analyzes the direct, indirect, and cumulative effects of the Project Modifications; provides modifications (additions, deletions, updates, or other revisions), as needed, to the approved mitigation measures provided in the adopted Final EIR MMRP; identifies any residual effects that may remain following the implementation of such measures; and compares effects to those analyzed in the 2009 EIR.

IV.M.1 Environmental Setting

Utilities and service systems, including water, stormwater, sanitary sewer, solid waste, and energy services were addressed in the 2009 EIR. The Project Modifications would be developed on the same Project site as the Approved Project, though expanded by approximately 10 acres of water surface to accommodate the expanded marina. As described in Chapter III, *Project Description*, since preparation of the 2009 EIR, there has been substantial and on-going construction of the Approved Project. At the time of the NOP (September 2018), Phase I on-and off-site improvements were constructed. In addition, Phase I park and open space improvements and development on Parcel B were under construction. Final Development Permits (FDPs) for Affordable Housing on Parcels F and A, FDPs for Parcels C and G, and an FDP for Phase II through IV park and open space improvements had been approved. These changes to the Project site are considered a part of the existing conditions and environmental baseline for this SEIR analysis. Since publication of the NOP, additional FDPs for Phase I and II parcels have been submitted and development proposals for all sites within those phases are either under review, approved, under construction, or operational (see Chapter III, *Project Description*). The following discussion provides an update to utilities and service systems by utility/service type, since preparation of the 2009 EIR, as of the NOP date, September 21, 2018.

Water Service

The East Bay Municipal Utilities District (EBMUD), a publicly owned utility, owns, operates and maintains the water distribution system within the City of Oakland. EBMUD's water sources and conveyance system are described in detail in the 2009 EIR. Changes to EBMUD's water service system, recycled water, conservation measures, and demand since preparation of the 2009 EIR are described below.

Water Supply System

The EBMUD water supply system as described in the 2009 EIR remains unchanged. Overall, as considered in the 2009 EIR, water is treated at six different water treatment plants with a total treatment capacity of 375 million gallons per day (mgd) (EBMUD, 2019a). Since the preparation of the 2009 EIR water pressure remains adequate throughout the City and ranges from 30 to 130

pounds. Pressure may be reduced in some locations where there are older water mains if they are not sized based on current standards (EBMUD, 2019b).

Recycled Water

Due to the fact that EBMUD provides both drinking water and wastewater services to its service area, it has a unique opportunity to integrate recycled water into its water supply. There are five existing water treatment plants within the EBMUD water recycling system and approximately three under construction (EBMUD, 2019c). EBMUD currently provides over 9 mgd of water or nearly 7.3 billion gallons annually (EBMUD, 2019c), which represents an increase in recycled water availability since preparation of the 2009 EIR.

Water Conservation

In 2011, EBMUD updated the 1994 Water Conservation Master Plan. The updated plan evaluates baseline water demand, compares individual conservation measures, and measures water savings and costs. The plan evaluates both demand-side and supply-side conservation measures. The plan developed a phasing plan for water conservation measures adopted in the plan (EBMUD, 2011).

Water Demand

Since preparation of the 2009 EIR, EBMUD is continuing to seek additional supplemental rights. The 2015 Urban Water Management Plan (UWMP), adopted by EBMUD's Board of Directors on June 28, 2016, is a long range planning document used to assess current water demand and projected water usage, water supply planning, and water conservation and recycling efforts (EBMUD, 2016).¹ Recent multi-year droughts significantly reduced the supply of water available to EBMUD customers. While EBMUD has a drought management program (DMP) to manage water supply and use during periods of drought, drought along with other natural hazards such as earthquakes, floods, climate change etc. pose risks to the EBMUD water supply system.

The 2015 UWMP identified that within the EBMUD service territory, single family residential was the customer category with the greatest level of water use followed by multi-family residential, commercial, industrial, and petroleum. The 2015 UWMP projects that by 2040, multi-family residential water demand will increase from 29 mgd in 2015 to 54 mgd in 2040. The 2015 UWMP modeled the ability of EBMUD to meet water demand under baseline results, single dry year, and multiple dry year scenarios. Under baseline conditions, EBMUD will be able to meet demand through 2040 during normal and single dry years. All other scenarios demonstrated that by 2040, EBMUD would require additional water supplies to meet demand (EBMUD, 2016).

Stormwater Drainage Service

Stormwater drainage infrastructure, the Alameda County Flood Control and Water Conservation District, and Oakland Public Works Agency are described in the 2009 EIR. Currently, the storm

¹ The 2015 UWMP provides a more current analysis of water supply and demand to the 2005 Urban Water Management Plan.

drainage facilities in the City consist of more than 300 miles of storm drainpipes, 100 miles of open creeks, and 15,000 inlets, manholes and catch basins (City of Oakland, 2014).

Sanitary Sewer Service

EBMUD provides sanitary sewer treatment to the City of Oakland. EBMUD's wastewater treatment facilities and the Project site's connections into the EBMUD sewer system are described in the 2009 EIR. As described in the 2009 EIR, Oakland's main wastewater treatment plant (MWWTP) is located southwest of the I-580/I-80 interchange in Oakland. Wastewater is collected by 29 miles of interceptor lines that move wastewater from local sewer collection systems to the MWWTP. Currently, the MWWTP is designed to provide primary treatment for a flow of up to 320 mgd and secondary treatment for a maximum flow of 168 mgd. The average daily dry weather flow is 63 mgd, which is lower than flow considered under the 2009 EIR (EBMUD, 2019d).

As described in the 2009 EIR, EBMUD has a persistent issue with respect to inflow and infiltration (I/I) flows into EBMUD and Oakland sewer lines, resulting in high flow levels and overflow of untreated wastewater during wet weather. Since the preparation of the 2009 EIR, specifically, between 2005 and 2007, extensive flow monitoring was conducted as part of the Wet Weather Infrastructure Improvement Studies. Based on the flow monitoring data collected during this period, a refined hydraulic model of the EBMUD interceptor system was developed and capacity constraints under storm conditions were analyzed to understand the influence of I/I on discharges of sanitary sewer overflows (EBMUD, 2016). On January 14, 2009, the San Francisco Bay Regional Water Quality Control Board (RWQCB) issued an order prohibiting discharges from EBMUD's wet weather facilities with an accompanying Cease and Desist Order that includes requirements for actions to be taken if discharges occur. On July 22, 2009, a Stipulated Order for Preliminary Relief issued by the U.S. Environmental Protection Agency (U.S. EPA), State Water Resources Control Board (State Water Board), and RWQCB became effective. This order required EBMUD to perform a variety of work, including additional flow monitoring and modeling by 2012, to lay the groundwork for future efforts to eliminate discharges from the wet weather facilities. On September 22, 2014, a Consent Decree became effective, mandating work activities to reduce I/I so that, by 2036, the wet weather facilities are not used for storm events that generate flows that are less than design conditions. The Consent Decree was negotiated among EBMUD, seven wastewater collection system agencies that discharge into EBMUD's interceptor system (including the City of Oakland), the State Water Board, and the RWQCB. The Consent Decree is a legal document that requires the elimination of wet weather facility discharges by 2036 (EBMUD, 2016).

Design flows for components of the EBMUD collection system (interceptors, pump stations, and wet weather facilities) were established based on the National Pollutant Discharge Elimination System (NPDES) permit requirements for both the MWWTP and wet weather facilities prior to the 2009 Stipulated Order for Preliminary Relief. Capacity requirements are based on the East Bay design storm event, which uses a five-year return period rainfall event, combined with additional assumptions such as seasonally-elevated groundwater levels. To comply with the Consent Decree, EBMUD is using flow monitoring, smoke testing, closed-circuit television

inspection, manhole inspections, and other technical investigative technologies to identify I/I sources and flows in areas that discharge into the interceptor system (EBMUD, 2018).

Solid Waste Service

As described in the 2009 EIR, the majority of solid waste collected in the City of Oakland is disposed of at the Altamont Landfill near Livermore. The Altamont Landfill has a maximum permitted capacity of 124,400,000 cubic yards. As of 2014, the most recent year for which there is available data, 53 percent of this capacity was remaining (CalRecycle, 2019a). Most of the remaining solid waste was sent to four other landfills: Forward Landfill in San Joaquin County, the Keller Canyon Landfill in Contra Costa County, Potrero Hills Landfill in Solano County, and the Vasco Road Landfill in Alameda County. The Alameda County Waste Management Authority (ACWMA) developed the Alameda County Integrated Waste Management Plan to develop a countywide approach to waste management. This plan, adopted in 2003 and amended in 2017, estimates a closure date for Altamont Landfill of 2037. The ACWMA has acquired land in the Altamont Hills, which could be developed as a multi-purpose waste management facility, depending on need. This site could contain 98 million cubic yards of landfill capacity. At this time, the ACWMA has chosen not to proceed with the permitting and development of this landfill site (ACWMA, 2017).

AB 939, enacted in 1989, requires Source Reduction and Recycling Element of each city and county to include an implementation schedule to divert a percentage of its solid waste from landfill disposal through source reduction, recycling, and composting activities. AB 939 specifies a required diversion rate of at least 50 percent of wastes by the year 2000. The California Department of Resources Recycling and Recovery (CalRecycle) indicates that the City of Oakland's diversion rate was 59 percent in 2006. Beginning with the 2007 jurisdiction annual reports, diversion rates were no longer measured. With the passage of SB 1016 in 2006, the Per Capita Disposal Measurement System, only per capita disposal rates are measured to determine if a jurisdiction's efforts are meeting the intent of AB 939.

As of 2015, the City of Oakland had a per resident disposal target rate of 5.5 pounds per day (PPD) and a per employee disposal target rate of 21.4 PPD. In 2015, the City reported an actual annual per resident PPD of 2.3 and actual annual per employee PPD of 7.1, thereby meeting the City's waste diversion goals for 2015 (CalRecycle, 2019b). City waste diversion programs are described in the *Regulatory Setting* below.

Energy Services

Electricity and gas service in the City of Oakland is provided primarily by Pacific Gas and Electric (PG&E). As addressed in the 2009 EIR, buildings constructed after June 30, 1977 must comply with standards identified in Title 24 of the California Code of Regulations. Title 24, established by the California Energy Commission in 1978, is included requires the inclusion of state-of-the-art energy conservation features in building design and construction, including specific energy-conserving design features, use of non-depletable energy resources, or a demonstration that buildings would comply with a designated energy budget. As addressed under

Section IV.F *Geology*, the California Building Code is updated periodically. The Project Modifications would be subject to the most current California Building Code requirements.

Electricity

Since preparation of the 2009 EIR PG&E has made improvements to its electric transmission and distribution systems to accommodate the integration of new renewable energy resources, distributed generation resources, and energy storage facilities, and to help create a platform for the development of new Smart Grid technologies that help with load balancing and ensuring reliable electricity delivery to end customers. PG&E is required to maintain physical generating capacity adequate to meet its customers’ demand for electricity (load), including peak demand and planning and operating reserves, deliverable to the locations and at times as may be necessary to provide reliable electric service. Since the preparation of the 2009 EIR, this load has changed.

In 2018, PG&E generated and/or procured a total of 48,832 gigawatt hours (GWh) of electricity. Of this total, PG&E owns approximately 7,686 megawatts (MW) of generating capacity, itemized below. The remaining electrical power is purchased from other sources in and outside of California. Approximately 18 percent of the electricity produced by PG&E comes from natural gas-fired sources (see **Table IV.M-1**) (PG&E, 2019).

**TABLE IV.M-1
 PG&E-OWNED ELECTRICITY GENERATING SOURCES**

Source	Generating Capacity (Megawatts MW)
Nuclear (Diablo Canyon-2 reactors)	2,240
Hydroelectric	3,891
Natural Gas-Fired	1,400
Fuel Cell	3
Solar Photovoltaic (13 units-12 in Fresno County, 1 in Kings County)	152
Total	7,686

SOURCE: PG&E, 2019

California law requires load-serving entities, such as PG&E, to gradually increase the amount of renewable energy they deliver to their customers to at least 33 percent of their total annual retail sales by 2020. This program, known as the Renewables Portfolio Standard (RPS) program, became effective in December 2011, and established three multi-year compliance periods that have gradually increasing RPS targets: 2011 through 2013, 2014 through 2016, and 2017 through 2020. After 2020, the RPS compliance periods will be annual. During 2018, 38.9 percent of PG&E’s energy deliveries were from renewable energy sources, exceeding the annual RPS target of 28.0 percent (PG&E, 2019).

In 2018, total consumption of electricity in PG&E’s service area was approximately 79.8 billion kilowatt-hours (kWh), and total consumption of electricity in Alameda County was approximately 10.3 billion kWh (CEC, 2019b).

Additionally, East Bay Community Energy (EBCE) is a community-governed, local power supplier that provides renewable and carbon-free electricity to Alameda County residents and businesses under Alameda County's community choice energy (CCE) program, at rates that are lower or comparable to PG&E's rates. The State of California passed legislation in 2002 (Assembly Bill 117) that permits local agencies to form CCE programs for their communities. Under a CCE program, the utility company (in this case PG&E) continues to deliver and service the electricity through its existing utility lines, and provide billing and customer service. Residential accounts are automatically enrolled in a carbon-free and renewable (at least 38 percent) energy program and may choose to enroll in a 100 percent renewable energy program. Customers may also choose to opt-out and return to PG&E at any time (EBCE, 2019).

Natural Gas Operations

In addition to energy changes since preparation of the 2009 EIR, PG&E continues to provide natural gas transportation services to "core" customers and to "non-core" customers (i.e., industrial, large commercial, and natural gas-fired electric generation facilities) that are connected to its gas system in its service territory. In 2018, residential-related consumption of natural gas in PG&E's service area was approximately 1.8 billion therms, and residential-related natural gas consumption in Alameda County was approximately 211 million therms (CEC, 2019b).

IV.M.2 Regulatory Setting

Since the preparation of the 2009 EIR, there have been minor updates to the General Plan and Municipal Code. Relevant updates and additions to regulations are described below with additional detail in Section IV.A *Land Use*.

Federal

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act, Subtitle D, contained in Title 42 of the United States Code section 6901 et seq. contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria. The federal regulations address the location, operation, design, groundwater monitoring, and closure of landfills. The U.S. EPA waste management regulations are codified in 40 CFR 239-282. The Resource Conservation Recovery Act Subtitle D is implemented by Title 27 of the Public Resources Code, approved by the U.S. EPA.

State

California Water Conservation Act

The California Water Conservation Act was enacted in November 2009 and requires each urban water supplier to select one of four water conservation targets contained in California Water Code Section 10608.20 with the statewide goal of achieving a 20 percent reduction in urban per-capita water use by 2020.

Water Supply Assessment (WSA)

California Public Resources Code Section 21151.9 requires that a WSA be prepared for the Project to ensure that long-term water supplies are sufficient to meet the project's demands in normal, single dry and multiple dry years for a period of 20 years. Preparation of a WSA is required if a proposed action meets the statutory definition of a "project," which includes residential development of more than 500 dwelling units (Water Code section 20912(a)). Completion of a WSA requires collection of proposed water supply data and information relevant to the project in question, an evaluation of existing/current use, a projection of anticipated demand sufficient to serve the project for a period of at least 20 years, delineation of proposed water supply sources, and an evaluation of water supply sufficiency under single year and multiple year drought conditions.

Written Verification of Water Supply

Government Code Section 66473.7(a)(1) requires an affirmative written verification of sufficient water supply for some proposed residential developments of more than 500 dwelling units. The written verification is designed as a "fail-safe" mechanism to ensure that collaboration on finding the needed water supplies to serve a new large subdivision occurs early in the planning process. This verification must also include documentation of historical water deliveries for the previous 20 years, as well as a description of reasonably foreseeable impacts of the proposed subdivision on the availability of water resources of the region. Government Code section 66473.7(b)(1) states:

The legislative body of a city or county or the advisory agency, to the extent that it is authorized by local ordinance to approve, conditionally approve, or disapprove the tentative map, shall include as a condition in any tentative map that includes a subdivision a requirement that a sufficient water supply shall be available. Proof of the availability of a sufficient water supply shall be requested by the subdivision applicant or local agency, at the discretion of the local agency, and shall be based on written verification from the applicable public water system within 90 days of a request.

Based on the information contained in the written verification, the city or county may attach conditions to assure there is an adequate water supply available to serve the proposed plan as part of the tentative map approval process.

Senate Bill (SB) 1016

In 2007, SB 1016 was passed, changing the way that CalRecycle measures waste diversion. The goal of the new per capita disposal measurement system was to make the AB 939 process of goal measurement simpler, timelier, and more accurate. SB 1016 changed to a disposal-based indicator—the per capita disposal rate—which uses only two factors: a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities. The AB 939 50 percent solid waste disposal reduction requirement is now measured in terms of per-capita disposal expressed as pounds of waste generated per person per day, or pounds per employee per day. The focus is on program implementation, actual recycling, and other diversion programs instead of estimated numbers. Under this measurement system, a city needs to annually dispose of an amount equal to or less than its "50 percent equivalent per capita disposal target" calculated by CalRecycle.

Public Resources Code 41780

The California State Legislature set the policy goal for the state that not less than 75 percent of solid waste generated be source reduced, recycled or composted by the year 2020. Furthermore, a 50 percent diversion rate will be enforced for local jurisdictions.

Executive Order S-14-08 and S-21-09

In November 2008, then-Governor Schwarzenegger signed Executive Order S-14-08, which expands the State's RPS to 33 percent renewable power by 2020. In September 2009, then-Governor Schwarzenegger continued California's commitment to the Renewable Portfolio Standard by signing Executive Order S-21-09, which directs the California Air Resources Board under its Assembly Bill (AB) 32 authority to enact regulations to help the State meet its RPS goal of 33 percent renewable energy by 2020.

SB 350 – Clean Energy and Pollution Reduction Act of 2015

SB 350, known as the Clean Energy and Pollution Reduction Act of 2015 was enacted on October 7, 2015 and provides a new set of objectives in clean energy, clean air, and pollution reduction by 2030. The objectives include the following:

1. To increase from 33 percent to 50 percent the procurement of California's electricity from renewable sources.
2. To double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.

Senate Bill 100

On September 10, 2018, then-Governor Brown signed SB 100, establishing that 100 percent of all electricity in California must be obtained from renewable and zero-carbon energy resources by December 31, 2045. SB 100 also creates new standards for the RPS goals that were established by SB 350 in 2015. Specifically, the bill increases required energy from renewable sources for both investor-owned utilities and publicly-owned utilities from 50 percent to 60 percent by 2030. Incrementally, these energy providers must also have a renewable energy supply of 33 percent by 2020, 44 percent by 2024, and 52 percent by 2027. The updated RPS goals are considered achievable, since many California energy providers are already meeting or exceeding the RPS goals established by SB 350.

Local Plans, Ordinances and Policies

EBMUD Drought Management Program (DMP)

Since preparation of the 2009 EIR, EBMUD has established a new DMP. Historically, if water supplies were severely depleted, EBMUD's Board of Directors could declare a water shortage emergency and implement a DMP, which is designed to allow EBMUD to minimize drought impacts on its customers while continuing to meet stream-flow release requirements and obligations to downstream Mokelumne River water users. The Board may also implement a DMP

in the absence of a declaration of water shortage emergency if the supplies are moderately depleted or the state mandates water use restrictions.

The DMP guidelines offer two scenarios depending on whether the drought declaration is linked to local conditions, as measured by total system storage (TSS), or to a state mandate, such as the mandatory water use reductions set by the State Water Board in 2015. Historically, EBMUD's drought declarations have been based on local conditions. Under the "TSS Scenario," EBMUD declares different drought stages based on projected end-of-September TSS volumes. Stage zero corresponds to normal water year conditions, and stages one through four reflect increasingly severe drought conditions corresponding to reduced TSS. Each stage is associated with recommendations for the quantities of water from the Central Valley Project and additional dry year water supply that could be obtained in combination with the level of customer demand reduction that may be needed. As the projected end of season TSS decreases, the DMP Guidelines call for higher levels of customer demand reduction, and dry year supplemental supplies. Demand management can include percent mandated reductions in water use, as mandated by the state, from 10 percent to greater than 20 percent reductions based on the higher the drought stage, and/or by increasing water rates, adding drought surcharges, and fines for excessive use. In addition, the EBMUD DMP includes other administrative remedies to reduce water demand through rebates and incentives on upgrading older plumbing fixtures and irrigation devices.

Oakland Standard Conditions of Approval (SCAs)

The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) in 2008, and they have since been amended and revised several times.² Like other regulations, the SCAs apply to projects in the City regardless of their CEQA impacts. The SCAs are not mitigation measures and therefore are not listed as mitigation measures. If the Project Modifications are approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project Modifications. With implementation of the SCAs, some of the mitigation measures from the 2009 EIR are no longer needed, and this SEIR notes when that occurs.³ Below are the SCAs relevant to utilities and service systems:

- **SCA UTL-1 (SCA 87): Sanitary Sewer System.** *Prior to approval of construction-related permit.* The project applicant shall prepare and submit a Sanitary Sewer Impact Analysis to the City for review and approval in accordance with the City of Oakland Sanitary Sewer Design Guidelines. The Impact Analysis shall include an estimate of pre-project and post-project wastewater flow from the project site. In the event that the Impact Analysis indicates that the net increase in project wastewater flow exceeds City-projected increases in wastewater flow in the sanitary sewer system, the project applicant shall pay the Sanitary Sewer Impact Fee in accordance with the City's Master Fee Schedule for funding improvements to the sanitary sewer system.

² A revised set of SCAs was recently published by the City of Oakland in December, 2020.

³ Where SCAs replace mitigation measures for the Project Modifications, such replacement does not indicate that the Project Modifications would have new or substantially more severe environmental impacts than the Approved Project.

- **SCA UTL-2 (SCA 84): Recycling Collection and Storage Space.** *Prior to approval of construction-related permit.* The project applicant shall comply with the City of Oakland Recycling Space Allocation Ordinance (chapter 17.118 of the Oakland Planning Code). The project drawings submitted for construction-related permits shall contain recycling collection and storage areas in compliance with the Ordinance. For residential projects, at least two (2) cubic feet of storage and collection space per residential unit is required, with a minimum of ten (10) cubic feet. For nonresidential projects, at least two (2) cubic feet of storage and collection space per 1,000 square feet of building floor area is required, with a minimum of ten (10) cubic feet.

IV.M.3 Impacts and Mitigation Measures

Significance Criteria

The City of Oakland has established thresholds of significance for CEQA impacts, which incorporate those in Appendix G of the CEQA Guidelines (City of Oakland, 2016). Based on these thresholds, the Project Modifications would have a significant impact on the environment if it would:

- A. Exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board;
- B. Require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects;
- C. Exceed water supplies available to serve the project from existing entitlements and resources and require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects;
- D. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new wastewater treatment facilities or expansion of existing facilities, construction of which could cause significant environmental effects;
- E. Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs and require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects;
- F. Violate applicable federal, state, and local statutes and regulations related to solid waste;
- G. Violate applicable federal, state and local statutes and regulations relating to energy standards; or
- H. Result in a determination by the energy provider, which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects.

Methodology

Consistent with CEQA guidance, the SEIR is required to evaluate only the changes in the project, changed circumstances, or new information that could result in new significant environmental impacts or substantially more severe environmental impacts than were analyzed in the 2009 EIR. As such, in accordance with CEQA Guidelines Section 15163, this SEIR contains information necessary to disclose environmental impacts from the Project Modifications that were not analyzed in the 2009 or would be substantially more severe than anticipated by the 2009 EIR. This SEIR evaluates the Project Modifications using the City's current methodology, significance criteria, and thresholds. The analysis relies on the environmental baseline, which is the physical circumstances existing at the time the NOP was published in September 2018, and also compares the Project Modification to the Approved Project to determine if the modifications create any new or substantially more severe impacts on the environment. This SEIR discusses new City requirements and analysis methods established since preparation of the 2009 EIR, such as the incorporation of the City's SCAs, which would be required conditions of approval for the Project Modifications.

Changes that have occurred to environmental and regulatory setting since preparation of the 2009 EIR are described above. With the exception of new significance criteria related to energy use, described below, the City's CEQA Thresholds of Significance for utilities and service systems have not changed since preparation of the 2009 EIR.

The impact discussions and analyses below focus on the activities associated with the Project Modifications and the potential for utilities and service systems impacts associated with those activities.

Consistent with the City's current practice and Public Resources Code 21100(b)(3), this analysis addresses the new CEQA requirement to provide a quantified impact analysis for the potential to result in the wasteful use of energy or energy resources. The impact analysis includes an energy impact based on Section 15126.2(b) and Appendix F of the CEQA Guidelines. Though the analysis provides operational energy use estimates for the Project Modifications, the impacts are analyzed based on an evaluation of whether this energy use would be considered wasteful, inefficient, or unnecessary taking into account available energy supplies and existing use patterns, the Project Modifications' energy efficiency features, and compliance with applicable standards and policies aimed to reduce energy consumption, including the City's ECAP, and the state's Title 24 Energy Efficiency Standards. Energy quantification details supporting the Project Modifications estimates presented in this section are based on Section IV.C *Air Quality* CalEEMod outputs, included as Appendix D.

Impacts

Water Supply

Impact UTL-1: The Project Modifications would not generate water demand that exceeds water supplies available from existing entitlements and resources. (Criterion C) (*Less Than Significant*)

The 2015 UWMP projected that by 2020, the EBMUD service area would consume approximately 217,000,000 gallons per day (gpd). In compliance with SB 610 (described above), the Project Applicant requested and received a WSA from EBMUD (see Appendix F). According to the WSA, citywide demand projections for 2020 increased to 267,000,000 gpd. Project Modifications were estimated to increase water demand by approximately 120,900 gpd, which represents 0.05 percent of the 2020 projected water demand.⁴ Overall, the WSA determined that the Project Modifications were accounted for in their projections and that EBMUD would have adequate water supplies to serve the Project Modifications. Therefore, this impact would be less-than-significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to 2009 the EIR: The conclusion regarding the potential impact to water demand and supply is the same as identified in the 2009 EIR under Impact M.1 (*less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes in the Project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Wastewater

Impact UTL-2: The Project Modifications would not result in a determination by the wastewater treatment provider that it does not have adequate capacity to serve the projected demand in addition to the providers' existing commitments and would not exceed the wastewater treatment capacity of the San Francisco Bay Regional Water Quality Control Board (RWQCB). (Criteria A and D) (*Less than Significant*)

The Project Modifications would generate sanitary waste, resulting in greater demands on EBMUD’s wastewater treatment facilities serving the Project site. Wastewater generation was not specifically quantified for the Project Modifications. However, as noted above, using EBMUD’s WSA, the Project Modifications’ are estimated to result in approximately 120,900 gpd in increased water demand. While wastewater flows are typically less than water demand by approximately 10 percent, this SEIR conservatively assumes that all water consumed onsite would enter the wastewater stream thereby generating approximately 120,900 gpd of wastewater. Currently, the EBMUD MWWTP has approximately 114 mgd average dry weather flow in excess dry weather

⁴ The Project Modifications’ WSA identified a demand of 760,900 gpd, and the 2009 EIR identified a water demand of 640,000 gpd. This results in an increase of 120,900 gpd.

treatment capacity (EBMUD, 2016). The Project Modifications' maximum wastewater discharge of 120,900 gpd is only about 1.1 percent of the excess treatment capacity.

The Project Modifications would be required to comply with SCA UTL-1 (listed above), which requires project applicants to prepare and submit a Sanitary Sewer Impact Analysis for review and approval prior to the approval of construction-related permits. The Project Modification's compliance with this SCA would ensure that the sanitary waste generated by the Project Modifications would not exceed the capacity of existing wastewater treatment facilities, and therefore would not exceed wastewater treatment requirements of the RWQCB. Considering the minor increase in wastewater generation relative to EBMUD's average daily dry weather flow of 63 mgd, as well as compliance with SCA UTL-1, the Project Modifications would have a less-than-significant impact related to wastewater treatment facilities' capacity for conveyance and treatment.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impact to wastewater demand is the same as identified in the 2009 under Impact M.2 (less than significant). The new SCA related to the sanitary system applies to the Project Modifications. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the project due to Project Modifications, "changed circumstances" or "new information," pursuant to CEQA Guidelines Section 15162.

Stormwater

Impact UTL-3: The Project Modifications would not require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects exceed the capacity of the City's stormwater drainage facilities. (Criterion B) (*Less than Significant*)

Although the Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would occur within the same overall building envelopes as the Approved Project. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina and water taxi service, the Project Modifications would occur within the same Project site as the Approved Project and this SEIR assumes that there would be no substantial increase in duration of construction-related activity with approval of the Project Modifications. The Project Modifications would not include changes to the Approved Project's onshore site plan and thus would not alter the Approved Project's planned impervious surfaces, drainage plans, and proposed infrastructure improvements as analyzed in the 2009 EIR. Consequently, potential impacts to the City's storm water drainage system are not reevaluated herein.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impact to the City’s stormwater drainage facilities is the same as identified in the 2009 EIR, under Impact M.3 (*less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

Solid Waste

Impact UTL-4. The Project Modifications would be served by a landfill with sufficient permitted capacity to accommodate the Project Modifications’ solid waste disposal needs and would not violate applicable federal, state, and local statutes and regulations related to solid waste. (Criteria E and F) (*Less Than Significant*)

The Project Modifications would result in an approximate 10 percent increase worker trips and delivery trips to and from the site to develop the additional 600 residential units, and approximately 20 construction materials delivery trips per season, for five seasons, to develop the expanded marina. No change is proposed to the number or height of the Approved Project towers and the Project Modifications would occur within the same overall building envelopes as the Approved Project. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project and this SEIR assumes that there would be no substantial increase in construction debris with approval of the Project Modifications. Consequently, construction-related impacts of the Project Modifications are not reevaluated herein.

As described above, the most recent estimate of actual annual per resident PPD of solid waste in the City of Oakland is from 2015 at 2.3 PPD (CalRecycle, 2019b). With this factor, the Project Modifications’ estimated 1,007 residents could generate just over 2,300 PPD of solid waste or approximately 424 tons annually (see Section IV.J. *Population and Housing*).⁵ At approximately 0.04 percent of the 1,047,800 annual tons of solid waste generated by Alameda County, the solid waste generated by the Project Modifications would not be significant (Stop Waste, 2019). Furthermore, the ACWMA has enough capacity to serve the Project Modification’s solid waste stream until the projected closure of the Altamont Landfill around 2049. Additionally, the ACWMA has acquired land in the Altamont Hills area suitable for development of a public multi-purpose waste management facility. Depending upon need, the facility could include various diversion facilities in conjunction with a landfill with sufficient capacity to provide additional reserve disposal capacity. The chosen site contains 98 million cubic yards of landfill capacity, enough to serve the Project Modifications for the foreseeable future.

⁵ The 1,007 residents multiplied by 2.3 equates to 2,321 PPD or 1.16 tons per day. This equals approximately 423.5 tons annually.

Compliance with existing policies and regulations, including the SCA UTL-2, which supports onsite recycling and City of Oakland's CALGreen Building requirements, would reduce the non-renewable sources of solid waste, minimize the solid waste disposal requirements of the Project Modifications, and would not cause the City to violate applicable statutes and regulations related to solid waste. Therefore, the Project Modifications would not violate applicable federal, state, and local statutes or regulations related to solid waste or generate solid waste that would exceed the permitted capacity of landfills, and impacts would be less than significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impact to solid waste is the same as identified in the 2009 EIR under Impact M.4 (*less than significant*). The new SCA related to recycling collection applies to the Project Modifications. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the project due to Project Modifications, "changed circumstances" or "new information," pursuant to CEQA Guidelines Section 15162.

Energy

Impact UTL-5: The Project Modifications would not result in a determination by the energy provider that serves the Project site that it does not have adequate capacity to serve the Project Modification's projected demand in addition to the providers' existing commitments, and would not violate applicable federal, state, or local statutes and regulations relating to energy standards. (Criteria G and H) (*Less Than Significant*)

Construction

The Project Modifications would result in an approximate 10 percent increase worker trips and delivery trips to and from the site to develop the additional 600 residential units, and approximately 20 construction materials delivery trips per season, for five seasons, to develop the expanded marina. No change is proposed to the number or height of the Approved Project towers and the Project Modifications would occur within the same overall building envelopes as the Approved Project. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project and this SEIR assumes that there would be no substantial increase in duration of construction-related activity with approval of the Project Modifications. Consequently, there would be no incremental construction-related energy impacts of the Project Modifications.

Operations

Residential Building Energy Use

The Project Modifications would increase the amount of development on the site by 600 multifamily units, and therefore result in an incremental increase in demand for electrical power.⁶ The 600 additional residential units would consume approximately 2,459,739 kWh of electricity per year (Appendix D).⁷ For reference, the Project's annual electricity demand represents less than 0.01 percent of the residential electricity consumed in the PG&E service area in 2018, and 0.08 percent of residential electricity consumed in Alameda County in 2018(CEC, 2019b). This increase is minimal relative to the Approved Project and relative to the demands of PG&E's service area and the Project Modifications would not require the construction of new or expanded energy facilities.

As with the Approved Project, the Project Modifications would be required to comply with all standards of Title 24 of the California Code of Regulations aimed at incorporating energy-conserving design and construction. The Project Modifications would not alter Approved Projects' infrastructure plan including plans for undergrounding, relocation, and/or upgrade of gas and electricity infrastructure. Consequently, potential impacts associated with these activities is not reevaluated herein.

The Project Modifications would not violate any energy-related standards or regulations, and would not require the construction of new or expanded energy facilities. Additionally, the electricity demand would be provided either through PG&E which is successfully implementing its RPS program to ensure ever-increasing percentage of renewable energy sources, or through EBCE, which offers renewable and carbon-free options. The Project Modifications would have a less-than-significant impact related to the provision of energy services and compliance with statutes and regulations relating to energy standards.

Transportation Energy Use

The additional residential units and marina users would also generate vehicle trips, contributing to an increase in gasoline consumption. Using the total CalEEMod mobile emissions rates (see Appendix D) during operations yields a conservative estimate of 281,777 gallons of additional gasoline required annually (Appendix G). The additional 158 slips proposed as part of the Project Modifications would be occupied by a variety of recreational marine vehicles such as motorboats and sailboats with auxiliary engines. Based on total fuel consumption outputs for marine

⁶ The Project Modifications evaluated in this analysis was assumed to include natural gas plumbing for heating, cooking and other building operational purposes and therefore provides a conservative evaluation of the project's greenhouse gas impacts. On December 15, 2020, the Oakland City Council adopted an Ordinance, adding to the Oakland Municipal Code Chapter 15.37, "All-Electric Construction In Newly Constructed Buildings." These new regulations require the following projects to meet the definition of an All-Electric Building, as defined therein: (1) projects that receive entitlements after December 15, 2020 or (2) projects that have obtained an entitlement before December 15, 2020, but do not receive a building permit by December 15, 2021. As a result, the Project Modifications will be required to be designed to use a permanent supply of electricity as the source of energy for all space heating, water heating, cooking appliances, and clothes drying appliances, and will be prohibited from having natural gas or propane plumbing.

⁷ Appendix D estimates the 600 additional residential units would consume approximately 2,458,215 kWh of electricity per year and 5,201,565 kBtu of natural gas per year. Therefore, the kBtu are converted to 1,524 kWh of electricity for a total of 2,459,739 kWh (2,458,215 + 1,524 = 2,459,739).

watercraft in Alameda County from the CARB Pleasure Craft Emissions Inventory, the additional marine vehicles from the Project Modifications would consume approximately 7,738 gallons of gasoline and 402 gallons of diesel per year (Appendix G).⁸ The additional gasoline and diesel consumption by the Project Modifications during operation would represent approximately 0.05 percent of Alameda County's gasoline sales in 2018 and less than 0.01 percent of Alameda's diesel sales in 2018 (CEC, 2019a). Therefore, the transportation energy demand from the operation of the Project Modifications would not result in wasteful, inefficient and unnecessary use of energy. This impact would be less than significant.

Water Taxi Energy Use

The proposed water taxi service currently uses a diesel-powered vessel. The diesel-powered vessel under Project Modifications operations would consume approximately 180,075,392 gallons of diesel fuel per year. The water taxi would represent a mass transit option for residents and visitors, and, as discussed in Section IV.B, *Transportation and Circulation*, would result in a reduction of overall vehicle miles traveled for the Project. Therefore, the fuel consumption during operation of the water taxi would not constitute a wasteful or inefficient use of energy. Additionally, assuming development of the Project Modifications by 2030, an all-electric fleet will be available. The all-electric water taxi would consume approximately 729,160 kWh of electricity per year (Appendix D). For reference, the water taxi annual electricity demand represents less than 0.001 percent of the commercial and industrial electricity consumed in the PG&E service area in 2018, and 0.007 percent of non-residential electricity consumed in Alameda County in 2018 (CEC, 2019b). Therefore, the Project Modifications would not involve the wasteful or inefficient use of energy for the water taxi. This impact would be less than significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential impact to energy is the same as identified in the 2009 EIR, under Impact M.5 (*less than significant*). No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the project due to Project Modifications, "changed circumstances" or "new information," pursuant to CEQA Guidelines Section 15162.

Cumulative Impacts

Cumulative Context

The cumulative geographic context for utilities and service systems includes the City of Oakland and the County of Alameda as service areas for water supply services, wastewater treatment services,

⁸ While the Project Modifications would include 158 new births in addition to the Approved Project, energy calculations assumed 166 additional births.

stormwater drainage and treatment services, solid waste services and electricity and gas services provided by EBMUD, the City of Oakland, ACWMA within the County of Alameda and PG&E.

Impacts

Impact UTL-6: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project area, would not result in significant cumulative impacts with respect to utilities and service systems. (*Less than Significant*)

As analyzed throughout this section, the Project Modifications would not result in significant impacts with respect to utilities and service systems.

Water Supply

As described in the *Environmental Setting*, and provided in the WSA, EBMUD determined the Project Modifications were accounted for in their demand projections (see Appendix F).

EBMUD has, and will have, adequate water supplies to serve existing and projected demand within their service boundary during normal and wet years, but deficits are projected for multi-year droughts. During multi-year droughts, EBMUD may require significant customer water use reductions and may also need to acquire supplemental supplies to meet customer demand. Despite water savings from EBMUD's aggressive conservation and recycling programs and water use restrictions called for in the DMP Guidelines described above, supplemental supplies would still be needed in significant, severe, and critical droughts. EBMUD has thus identified supplemental water supply sources. These include Northern California water transfers, Bayside Groundwater Project expansion, expansion of Contra Costa Water District's Los Vaqueros Reservoir (currently underway), and others that could be implemented to meet projected long-term supplemental water demand during multi-year drought periods. In addition to pursuing supplemental water supply sources, EBMUD also maximizes resources through continuous improvements in the delivery and transmission of available water supplies and investments in ensuring the safety of its existing water supply facilities. These programs, along with emergency interties and planned water recycling and conservation efforts, would ensure a reliable water supply to meet projected demands for current and future EBMUD customers within the current service area (see Appendix F) (EBMUD, 2016). Therefore, cumulative impacts related to water service would be less than significant and the Project Medications would not generate a considerable contribution. Consequently, the Project Modifications could not combine with or otherwise contribute to a cumulative impact related to these criteria.

Wastewater Treatment

As described in the *Environmental Setting* and *Regulatory Setting*, EBMUD and the cities it serves have committed to requiring all new development and redevelopment to prevent I/I flows from entering EBMUD's interceptors and mandatory compliance with EBMUD's Private Sewer Lateral Ordinance. Until such time I/I flow is reduced significantly, impacts on the MWWTP conveyance and treatment capacities are likely to be exceeded during wet weather flows resulting in a significant cumulative impact. As discussed under Impact UTL-2, the Project Modifications

would not result in a significant amount of wastewater relative to BMUD's average daily dry weather flow of 63 mgd. Additionally, prior to the issuance of permits, under SCA UTL-1 the Project Applicant would be required to submit a Sanitary Sewer Impact Analysis, which would determine whether or not the existing sewer system would have the capacity to serve the Project Modifications. Approval of this Sanitary Sewer Impact Analysis would ensure that sufficient sewer capacity exists to serve the Project. In summary, while there is an existing significant cumulative impact with regard to wastewater treatment, the Project Modifications' contribution would not be significant. Therefore, impacts related to the Project Modifications would be less than significant.

Stormwater

The Project Modifications would not alter the Approved Project's drainage plan or proposed increase in impervious surface. As a result, the Project Modifications would not contribute to a cumulative impact to stormwater.

Solid Waste

As described in the *Environmental Setting*, there is ample remaining capacity for solid waste at Altamont Landfill as well as sufficient other landfill options. Therefore, this is no existing cumulative impact with respect to solid waste and the Project Modifications could not combine with or otherwise contribute to a cumulative impact.

Energy

The Project Modifications and other reasonably foreseeable future development would be located in areas already served by gas and electricity infrastructure, and the increased power demand relative to the regional service area would be minimal. New or expanded power facilities would not be required as a direct result of Project Modifications. Furthermore, cumulative development would be required to comply with all standards of Title 24 of the California Code of Regulations, and therefore would not violate any energy-related standards or regulations. As described under Impact UTL-5, the Modified Project's electricity use would represent a small fraction of the electricity usage attributed to residential uses in the PG&E service area, as well as residential uses in Alameda County. Moreover, the electricity demand would be provided either through PG&E which is successfully implementing its RPS program to ensure ever-increasing percentage of renewable energy sources, or through EBCE, which offers renewable and carbon-free options.

As also described under Impact UTL-5, the Project Modifications would result in an increase in fuel consumption during operation; however, these would be marginal increases in fuel consumption, when compared to County gasoline and diesel sales. Past, present, and reasonably foreseeable future projects within the Project vicinity could require gasoline or diesel fuel, but these fuel demands would not combine with the fuel demands of the Project Modifications to cause a significant adverse cumulative impact relating to the wasteful, inefficient, or unnecessary consumption or use of fuel. In the event of a future fuel shortage, higher prices at the pump would curtail non-essential trips that could be termed "wasteful" and would moderate choices regarding vehicles, equipment, and fuel efficiency. Overall, the effect of the Project Modifications on energy services, in combination with other foreseeable development, would be less than significant.

Mitigation: None Required.

No New Significant Environmental Impacts in comparison to the 2009 EIR: The conclusion regarding the potential cumulative impact with respect to utilities and service systems is the same as identified in the 2009 EIR under Impact M.4 (*less than significant*). No new significant environmental effects or a substantial increase in the severity of previously identified significant effects would result from changes to the project due to Project Modifications, “changed circumstances” or “new information,” pursuant to CEQA Guidelines Section 15162.

IV.M.4 References

- Alameda County Waste Management Authority (ACWMA), 2017. *Alameda County Integrated Waste Management Plan Countywide Element Countywide Siting Element Countywide Summary Plan*.
- CalRecycle, 2019a. *SWIS Facility Detail, Altamont Landfill & Resource Recovery (01-AA-0009)*. Available: <https://www2.calrecycle.ca.gov/swfacilities/Directory/01-AA-0009/>. Accessed July 17, 2019.
- , 2019b. *Jurisdiction Diversion/Disposal Rate Summary 2007- Current*. Available: <https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006>. Accessed October 9, 2019.
- California Energy Commission (CEC), 2019a. 2018 California Annual Retail Fuel Outlet Report Results (CEC-A15), July 1, 2019. https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed October 21, 2019.
- , 2019b. *California Energy Consumption Database*. <https://ecdms.energy.ca.gov/>. Accessed October 21, 2019.
- City of Oakland, 2014. *Storm Drainage Design Standards*. Effective Date, July 2009, Updated October 2014.
- , 2016. *CEQA Thresholds of Significance Guidelines*. October 17, 2016.
- East Bay Community Energy (EBCE), 2019. Overview. <https://ebce.org/>. Accessed October 22, 2019.
- East Bay Municipal Utilities District (EBMUD), 2011. *Water Conservation Master Plan*. 2011.
- , 2016. *2015 Urban Water Management Plan*. Available: <https://www.ebmud.com/water/about-your-water/water-supply/urban-water-management-plan/>. Accessed, July 12, 2019.
- , 2018. *Wet Weather Consent Decree Implementation Update*, Planning Committee. January 9, 2018.
- , 2019a. *About Your Water*. Available: <https://www.ebmud.com/water/about-your-water/>. Accessed July 15, 2019.

———, 2019b. *Water Pressure*. Available: <https://www.ebmud.com/customers/water-pressure/>
Accessed July 15, 2019.

———, 2019c. *EBMUD Updated Recycled Water Master Plan*. February, 2019.

———, 2019d. *Water Treatment*. Available: <https://www.ebmud.com/wastewater/collection-treatment/wastewater-treatment/> Accessed: July 13, 2019.

Pacific Gas & Electric (PG&E), 2019. *2018 Joint Annual Report to Shareholders*, April 24, 2019.
Available: http://s1.q4cdn.com/880135780/files/doc_financials/2018/2018-Annual-Report-FINAL-web-ready-version-4-24-19.pdf. Accessed October 22, 2019.

Stop Waste, 2019. *Alameda County 2017-18 Waste Characterization Study*. September 5, 2018.

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IV.N Greenhouse Gas Emissions

This section presents an analysis of potential impacts on greenhouse gas (GHG) emissions that would result from the Project Modifications described in Chapter III, *Project Description*. The affected environment, regulatory setting, and analysis from the 2009 EIR are relied on to the extent relevant in this Supplemental EIR (SEIR), and are discussed to the extent that they differ from those described in the 2009 EIR. This section analyzes the direct, indirect, and cumulative effects of the Project Modifications; provides modifications (additions, deletions, updates, or other revisions), as needed, to the approved mitigation measures provided in the adopted Final EIR MMRP; and identifies any residual effects that may remain following the implementation of such measures.

At the time of the 2009 EIR (Draft published in 2005), GHG impacts were not a codified analysis under CEQA nor were they a component of the City of Oakland's 2004 CEQA Thresholds/ Criteria of Significance Guidelines in use at that time. The potential for significant GHG emission-related effects on the environment were assessed for the Project Modifications.

IV.N.1 Environmental Setting

Greenhouse Gases and Climate Change

Gases that trap heat in the atmosphere are called greenhouse gases or GHGs. What GHGs have in common is that they allow sunlight to enter the atmosphere, but trap a portion of the outward-bound infrared radiation, which warms the air. The process is similar to the effect greenhouses have in raising the internal temperature, hence the name GHGs. Both natural processes and human activities emit GHGs. The natural accumulation of GHGs in the atmosphere regulates the Earth's temperature; however, emissions from human activities such as fossil fuel-based electricity production, the use of internal combustion engines and motor vehicles have elevated the concentration of GHGs in the atmosphere. This anthropogenic accumulation of GHGs has contributed to an increase in the temperature of the Earth's atmosphere and has contributed to global climate change.

Global climate change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the rate of global climate change, multiple studies published in peer-reviewed scientific journals show that 97 percent or more of actively publishing scientists agree: climate-warming trends over the past century are very likely due to human activities (NASA, 2015). The principal GHGs are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs) and nitrogen trifluoride (NF₃). CO₂ is the most common reference gas for climate change.

To account for the global warming potential of different GHGs, emissions are often quantified and reported as carbon dioxide equivalents (CO₂e). For example, SF₆ is a GHG commonly used in the utility industry as an insulating gas in circuit breakers and other electronic equipment. SF₆, while comprising a small fraction of the total GHGs emitted annually world-wide, is a much more

potent GHG with 22,800 times the global warming potential as CO₂.¹ Large emission sources are reported in million metric tons of CO₂e.²

Global warming potential ratios are provided by the Intergovernmental Panel on Climate Change (IPCC). Historically, GHG emission inventories were calculated using ratios from the IPCC's Second Assessment Report, published in 1996. The IPCC has since updated the ratios based on the latest science in its Fourth Assessment Report and Fifth Assessment Report, published in 2007 and 2013, respectively. The California Air Resources Board (CARB) uses ratios in the Fourth Assessment Report for the statewide GHG emissions inventory (CARB, 2018); in the current Climate Change Scoping Plan (CARB, 2017), and in the current version of the California Emissions Estimator Model (CalEEMod) that is used to calculate CO₂e values for construction as well as operations for existing and project build-out conditions.³ Compounds that are regulated as GHGs are discussed below.

Carbon Dioxide (CO₂). In the atmosphere, carbon generally exists in its oxidized form, as CO₂. Natural sources of CO₂ include the respiration (breathing) of humans, animals and plants, volcanic outgassing, decomposition of organic matter, and evaporation from the oceans. Human-caused sources of CO₂ include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. Natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of man-made CO₂ and consequently the gas is building up in the atmosphere. CO₂ accounted for approximately 83 percent of anthropogenic GHG emissions (CO₂e) in California in 2016.

Methane (CH₄). CH₄ is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Decomposition occurring in landfills accounts for the majority of human-generated CH₄ emissions in California and in the United States as a whole. Agricultural processes such as intestinal fermentation, manure management, and rice cultivation are also significant sources of CH₄ in California. The global warming potential of CH₄ is considered 25 times that of CO₂. CH₄ accounted for approximately nine percent of anthropogenic GHG emissions (CO₂e) in California in 2016.

Nitrous Oxide (N₂O). N₂O is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. N₂O is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N₂O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N₂O emissions in California. N₂O

¹ The California Emissions Estimator Model (CalEEMod) is the modeling software used chiefly for determining GHG emissions from CEQA projects. CalEEMod currently utilizes the global warming potentials from the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4).

² The term metric ton is commonly used in the US to refer to the metric system unit, tonne, which is defined as a mass equal to 1,000 kilograms. A metric ton is approximately 1.1 short tons and approximately 2,204.6 pounds.

³ Version 2016.3.1, available at <http://www.caleemod.com>

emissions accounted for approximately three percent of anthropogenic GHG emissions (CO₂e) in California in 2016.

Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur Hexafluoride (SF₆).

HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.⁴ PFCs and SF₆ are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry leads to greater use of PFCs. HFCs, PFCs, and SF₆ accounted for approximately five percent of anthropogenic GHG emissions (CO₂e) in California in 2016.

Nitrogen trifluoride (NF₃). NF₃ is primarily used in manufacturing semiconductor and LCD panels, and certain types of solar panels and chemical lasers. The ability to measure NF₃ atmospheric concentrations has only recently been possible and this has revealed much higher concentrations than originally assumed. This is a major cause of concern as NF₃ is an extremely potent GHG and has a global warming potential of 17,200 times that of CO₂ (WRI, 2012).

Effects of Climate Change

Climate change refers to any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer). The scientific community's understanding of the fundamental processes responsible for global climate change has improved over the past decade, and its predictive capabilities are advancing. However, there remain significant scientific uncertainties in, for example, predictions of local effects of climate change, occurrence, frequency, and magnitude of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the Earth's climate system and inability to accurately model it, the uncertainty surrounding climate change may never be completely eliminated. Nonetheless, the IPCC's *Fifth Assessment Report, Summary for Policy Makers* states that, "it is *extremely likely* that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forc[es] [sic] together" (IPCC, 2014). A report from the National Academy of Sciences concluded that 97 to 98 percent of the climate researchers most actively publishing in the field support the tenets of the IPCC in that climate change is very likely caused by human (i.e., anthropogenic) activity (Anderegg *et al*, 2010).

The Fourth California Climate Change Assessment (Fourth Assessment), published in 2018, finds that the potential impacts in California due to global climate change include: loss in snow pack; sea level rise; more extreme heat days per year; more high ozone days; more extreme forest fires; more severe droughts punctuated by extreme precipitation events; increased erosion of

⁴ The Montreal Protocol is an international treaty that became effective on January 1, 1989, and was intended to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

California's coastlines and sea water intrusion into the Sacramento and San Joaquin Deltas and associated levee systems; and increased pest infestation (OPR et al, 2018).

Emissions Inventories

An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing human society's contributions to climate change. This section summarizes the latest information on global, United States, California, and local GHG emission inventories.

Global Emissions

Global estimates are based on country inventories developed as part of programs of the United Nations Framework Convention on Climate Change. Worldwide man-made emissions of GHGs were approximately 49 billion metric tons of CO₂e in 2010, including ongoing emissions from industrial and agricultural sources and emissions from land use changes (e.g., deforestation). CH₄ emissions account for 16 percent and N₂O emissions for 6.2 percent. As a timeline comparison, emissions of GHGs in 1970 were 27 billion metric tons of CO₂e per year (IPCC, 2014).

U.S. Emissions

In 2017, the United States emitted about 6,457 million metric tons of CO₂e, with 76.1 percent of those emissions coming from fossil fuel combustion. Of the major sectors nationwide, transportation accounts for the highest amount of GHG emissions (approximately 29 percent), followed by electricity (28 percent), industry (22 percent), agriculture (9 percent), commercial buildings (6 percent), and residential buildings (5 percent). Between 1990 and 2017, total U.S. GHG emissions rose by 1.3 percent, but emissions have generally decreased since peaking in 2005. Since 1990, U.S. emissions have increased at an average annual rate of 0.4 percent (U.S. EPA, 2019).

State of California Emissions

CARB compiles GHG inventories for the state of California. Based on the 2016 GHG inventory data (i.e., the latest year for which data are available from CARB) prepared by CARB in 2018, California emitted 429.4 million metric tons of CO₂e including emissions resulting from imported electrical power (CARB, 2018). Between 1990 and 2016, the population of California grew by approximately 9.4 million (from 29.8 to 39.2 million) (California Department of Finance, 2018). This represents an increase of approximately 31 percent from 1990 population levels. Despite the intervening population and economic growth, CARB's 2016 statewide inventory indicated that California's net GHG emissions in 2016 were just below 1990 levels, which is the 2020 GHG reduction target codified in California Health and Safety Code, Division 25.5, also known as The Global Warming Solutions Act of 2006 (AB 32).

Bay Area Emissions Inventory

In the nine county San Francisco Bay Area, GHG emissions from the transportation sector represent the largest source of the Bay Area's GHG emissions in 2015 at 41 percent, followed by the

stationary industrial sources at 26 percent, electricity generation and co-generation at 14 percent, and fuel use (primarily natural gas) by buildings at 10 percent. The remaining 8 percent of emissions is comprised of fluorinated gas emissions and emissions from solid waste and agriculture. Of the total transportation emissions in 2015, on-road sources accounted for approximately 87 percent, while off-road sources accounted for the remainder (BAAQMD, 2017a).

Alameda County Emissions Inventory

Emission inventories developed for Alameda County reveal that activities in the unincorporated County regions and within the County's 14 municipalities generated approximately 13.7 million gross metric tons of CO₂e emissions in 2005 (Alameda County, 2009). The transportation sector is the greatest contributor generating approximately 57 percent of these emissions while commercial/industrial sector accounts for 18 percent. The residential, direct access fuel/power purchases, and waste sectors make up 14 percent, 7 percent and 4 percent, respectively.

City of Oakland Emissions Inventory

In 2003, the City of Oakland, in partnership with the International Council for Local Environmental Initiatives (ICLEI), an international association of local, regional, and national governments and government organizations that have made a commitment to sustainable development, prepared the Baseline Greenhouse Gas Emissions Inventory Report to determine the community-wide levels of GHG emissions that the City of Oakland emitted in its base year, 2005. The City has since updated its core emissions inventory for calendar years 2010, 2013 and 2015.

Oakland emitted approximately 2.46 million tons of CO₂e in 2015 from all major sources, with more than 55 percent from on-road transportation. The inventory report shows that core emissions have decreased by approximately 16 percent since 2005. Despite these decreases, the inventory report shows that emissions are not on track to meet the City's 2020 target of 36 percent below 2005 baseline levels. (City of Oakland, 2018a). In July 2020, Oakland City Council adopted the 2030 Equitable Climate Action Plan (ECAP), a comprehensive plan to achieve the 2030 GHG reduction target and increase Oakland's resilience to the impacts of the climate crisis, both through a deep equity lens (City of Oakland, 2020b).

IV.N.2 Regulatory Setting

Federal

U.S. Environmental Protection Agency "Endangerment" and "Cause or Contribute" Findings

In *Massachusetts v. Environmental Protection Agency et al.*, 12 states and cities, including California, together with several environmental organizations, sued to require the U.S. Environmental Protection Agency (U.S. EPA) to regulate GHGs as pollutants under the Clean Air Act (127 S. Ct. 1438 [2007]). The U.S. Supreme Court ruled that GHGs fit within the Clean Air Act's definition of a pollutant and the U.S. EPA had the authority to regulate GHGs.

On December 7, 2009, the U.S. EPA Administrator signed two findings regarding GHGs under Section 202(a) of the federal Clean Air Act:

- **Endangerment Finding:** The current and projected concentrations of six key GHGs—CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

Mandatory Greenhouse Gas Reporting Rule

On September 22, 2009, the U.S. EPA released its final Greenhouse Gas Reporting Rule (Reporting Rule). The Reporting Rule is a response to the fiscal year (FY) 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110-161), that required the U.S. EPA to develop “...mandatory reporting of GHGs above appropriate thresholds in all sectors of the economy.” The Reporting Rule applies to most entities that emit 25,000 metric tons of CO₂e or more per year. The Project Modifications are not expected to reach this threshold.

Vehicle Emissions Standards

In 1975, Congress enacted the Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the Act, the U.S. EPA and National Highway Traffic Safety Administration are responsible for establishing additional vehicle standards. In August 2012, standards were adopted for model year 2017 through 2025 for passenger cars and light-duty trucks. By 2025, vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO₂ per mile.

In January 2017, U.S. EPA issued its Mid-Term Evaluation of the GHG emissions standards, finding that it would be practical and feasible for automakers to meet the model year 2022-2025 standards through a number of existing technology.

In August 2018, the U.S. EPA revised its 2017 determination, and issued a proposed rule that maintains the 2020 Corporate Average Fuel Economy and CO₂ standards for model years 2021 through 2026 (Federal Register, 2018). On February 7, 2019, the state of California, joined by 16 other states and the District of Columbia, filed a petition challenging the U.S. EPA’s proposed rule to revise the vehicle emissions standards, arguing that the U.S. EPA had reached erroneous conclusions about the feasibility of meeting the existing standards (Donahue, 2019) As of April 2019, the case was pending and oral arguments had not been scheduled (Grant, 2019) Accordingly, due to the uncertainty of future federal regulations, this analysis assumes that the existing Corporate Average Fuel Economy standards will remain unchanged.

State

The legal framework for GHG emission reduction in California has come about through Executive Orders, legislation, and regulations. The major components of California's climate change initiative are reviewed below:

Executive Order S-3-05

In 2005, in recognition of California's vulnerability to the effects of climate change, then-Governor Arnold Schwarzenegger established Executive Order S-3-05, which announced target dates by which statewide GHG emissions would be progressively reduced. These included a reduction of GHG emissions to 2000 levels by 2010; a reduction of GHG emissions to 1990 levels by 2020; and a reduction of GHG emissions to 80 percent below 1990 levels by 2050. As discussed below, the 2020 reduction target was codified in 2006 as Assembly Bill 32. However, the 2050 reduction target has not been codified and the California Supreme Court has ruled that CEQA lead agencies are not required to use it as a significance threshold. *Cleveland National Forest Foundation v. San Diego Association of Governments* (2017) 3 Cal.5th 497.

Assembly Bill 32 and the California Climate Change Scoping Plan

In 2006, the California legislature passed Assembly Bill 32 (Health and Safety Code §38500 et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 requires CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). AB 32 anticipates that the GHG reduction goals will be met, in part, through local government actions. CARB has identified a GHG reduction target of 15 percent from current levels for local governments and notes that successful implementation relies on local governments' land use planning and urban growth decisions.

Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008 (CARB, 2009), which was re-approved by CARB on August 24, 2011, that outlines measures to meet the 2020 GHG reduction goals. The Scoping Plan relies on the requirements of Senate Bill (SB) 375 (discussed below) to implement the carbon emission reductions anticipated from land use decisions.

The Scoping Plan is required by AB 32 to be updated at least every five years. The first update to the AB 32 Scoping Plan was approved on May 22, 2014 by CARB (CARB, 2014). The 2017 Scoping Plan Update was adopted on December 14, 2017. The Scoping Plan Update addresses the 2030 target established by SB 32 as discussed below, and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG emissions by 2030 compared to 1990 level (CARB, 2017).

Executive Order B-30-15 and Senate Bill 32

California Executive Order B-30-15 (April 29, 2015) set an "interim" statewide emission target to reduce GHG emissions to 40 percent below 1990 levels by 2030, and directed state agencies with jurisdiction over GHG emissions to implement measures pursuant to statutory authority to

achieve this 2030 target. Specifically, the Executive Order directed CARB to update the Scoping Plan to express this 2030 target in metric tons.

Senate Bill 605 and Senate Bill 1383

On September 21, 2014, Governor Jerry Brown signed SB 605, which required CARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants in the State no later than January 1, 2016. As defined in the statute, short-lived climate pollutant (SLCP) means “an agent that has a relatively short lifetime in the atmosphere, from a few days to a few decades, and a warming influence on the climate that is more potent than that of carbon dioxide.” SB 605, however, does not prescribe specific compounds as short-lived climate pollutants or add to the list of GHGs regulated under AB 32. SB 1383 (2016) required CARB to approve and implement the SLCP reduction strategy. SB 1383 also establishes specific targets for the reduction of SLCPs (40% below 2013 levels by 2030 for methane and HFCs, and 50% below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, and as mentioned above, CARB adopted its Short-Lived Climate Pollutant Reduction Strategy (SLCP Reduction Strategy) in March 2017. The SLCP Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, methane, and fluorinated gases.

Senate Bill 375

In addition to policy directly guided by AB 32, the legislature in 2008 passed SB 375 (Chapter 728, Statutes of 2008), which provides for regional coordination in land use and transportation planning and funding to help meet the AB 32 GHG reduction goals. SB 375 aligns regional transportation planning efforts, regional GHG emissions reduction targets, and land use and housing allocations. SB 375 requires Regional Transportation Plans developed by the state’s 18 metropolitan planning organizations to incorporate “sustainable communities strategies” (SCS) that will achieve GHG emission reduction targets set by CARB and coordinate regional housing and transportation. Metropolitan Transportation Commission (MTC) is the federally recognized metropolitan planning organization for the nine county Bay Area, which includes Alameda County and the City of Oakland.

Plan Bay Area, which includes the region’s SCS and the 2040 Regional Transportation Plan, was jointly approved by the Association of Bay Area Governments’ (ABAG) Executive Board and the MTC on July 18, 2013 (MTC and ABAG, 2013). The SCS lays out how the region will meet certain GHG reduction targets, which include reducing per capita emissions by 7 percent by 2020 and 15 percent by 2035 from a 2005 baseline. On July 26, 2017, the updated *Plan Bay Area 2040* and an associated EIR were approved by MTC and ABAG (MTC and ABAG, 2017).

An updated *Plan Bay Area 2050* is currently in development to further refine the long-range plan charting the course for the future of the nine-county San Francisco Bay Area. Plan Bay Area 2050 focuses on four key issues — the economy, the environment, housing and transportation — intended to outline strategies for growth and investment through the year 2050, while simultaneously striving to meet and exceed federal and state requirements. The Metropolitan

Transportation Commission and the Association of Bay Area Governments are expected to adopt Plan Bay Area 2050 in fall 2021.

MTC and ABAG are developing a short-term Implementation Plan starting fall 2020 through winter 2021 to guide how the Bay Area can work to take near-term action to implement the strategies adopted in Plan Bay Area 2050 over the next five years.

Senate Bill 743

In 2013, Governor Brown signed Senate Bill (SB) 743, which added Public Resources Code Section 21099 to CEQA, to change the way that transportation impacts are analyzed in transit priority areas under CEQA to better align local environmental review with statewide objectives to reduce GHG emissions, encourage infill mixed-use development in designated priority development areas, reduce regional sprawl development, and reduce VMT in California.⁵

As required under SB 743, OPR developed potential metrics to measure transportation impacts that may include, but are not limited to, vehicle miles traveled (VMT), VMT per capita, automobile trip generation rates, or automobile trips generated. The new VMT metric is intended replace the use of automobile delay and level of service (LOS) as the metric to analyze transportation impacts under CEQA. In its 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA, OPR recommends different thresholds of significance for projects depending on land use types. For example, residential and office space projects must demonstrate a VMT level that is 15 percent less than that of existing development to determine whether the mobile-source GHG emissions associated with the project are consistent with statewide GHG reduction targets. With respect to retail land uses, any net increase of VMT may be sufficient to indicate a significant transportation impact (OPR, 2018). In 2016, the City of Oakland adopted local VMT metrics to implement the directive from SB 743.

Executive Order S-1-07

Executive Order S-1-07, which was signed by then- Governor Schwarzenegger in 2007, proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of statewide emissions. It established a low carbon fuel standard with a goal to reduce the carbon intensity of transportation fuels sold in California by at least 10 percent by 2020.

In September 2018, CARB extended the low carbon fuel standard program to 2030, making significant changes to the design and implementation of the Program including a doubling of the carbon intensity reduction to 20 percent by 2030 (CARB, 2018a).

CEQA and Senate Bill 97

CEQA requires lead agencies to disclose, consider, and mitigate the adverse environmental effects of projects they are considering for approval. GHG emissions have the potential to

⁵ Steinberg. 2013. Available online at http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB743, accessed on March 10, 2017.

adversely affect the environment because they contribute to global climate change. Senate Bill 97 (Chapter 185, Statutes of 2007) and other California regulations address global climate change through revisions to the CEQA *Guidelines* and implementation of GHG emission reduction programs as described below.

SB 97, signed in August 2007, acknowledges that climate change is a prominent environmental issue requiring analysis under CEQA. This bill directed the Governor's Office of Planning and Research to prepare, develop, and transmit to the California Natural Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, no later than July 1, 2009. The California Natural Resources Agency was required to certify or adopt those guidelines by January 1, 2010.

On December 30, 2009, the Natural Resources Agency adopted the CEQA *Guidelines* amendments, as required by SB 97 (CNRA, 2009). These CEQA *Guidelines* amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in draft CEQA documents. The amendments became effective March 18, 2010.

Renewable Portfolio Standards (Senate Bills 1078 and 107 and Executive Orders S-14-08 and S-21-09)

In November 2008, then-Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Portfolio Standard to 33 percent renewable power by 2020. In September 2009, then-Governor Schwarzenegger continued California's commitment to the Renewable Portfolio Standard by signing Executive Order S-21-09, which directs CARB under its AB 32 authority to enact regulations to help the state meet its Renewable Portfolio Standard goal of 33 percent renewable energy by 2020.

Senate Bill 350 and Senate Bill 100

Senate Bill 350 (SB 350; Chapter 547, Statutes of 2015), signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. SB 350 is the implementation of some of the goals of Executive Order B-30-15. The objectives of SB 350 are:

1. To increase from 33 percent to 50 percent the procurement of the state's electricity from renewable sources.
2. To double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.

SB 100 (2018) increased the standards set forth in SB 350 establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030 be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the State that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity resources do not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

Executive Order B-55-18

EO B-55-18 (September 2018) establishes a new statewide goal “to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter.” This executive order directs CARB to “work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.”

Executive Order B-48-18

EO B-48-18 (2018) launches an 8-year initiative to accelerate the sale of EVs through a mix of rebate programs and infrastructure improvements. The order also sets a new EV target of five million EVs in California by 2030. EO B-48-18 includes funding for multiple state agencies including the California Energy Commission to increase EV charging infrastructure and CARB to provide rebates for the purchase of new EVs and purchase incentives for low-income customers.

Executive Order N-79-20

EO N-79-20 (2020) sets the following goals (1) 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035, (2) 100 percent of medium- and heavy-duty vehicles in the State will be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks, and (3) for the State to transition to 100 percent zero-emission off-road vehicles and equipment by 2035 where feasible. The order directs CARB to promulgate appropriate regulations to achieve these goals. It also directs CARB, the Energy Commission, Public Utilities Commission and other relevant State agencies, to use their existing authorities to accelerate deployment of affordable fueling and charging options for zero-emission vehicles, in ways that serve all communities and in particular low-income and disadvantaged communities.

California Building and Energy Efficiency Standards (Title 24)

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods (CEC, 2016). In addition to the California Energy Commission’s efforts, in 2008, the California Building Standards Commission adopted the nation’s first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CALGreen, and establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, and state-owned buildings, schools, and hospitals.

The current Title 24, Part 6 (Energy Efficiency) and Part 11 (CALGreen) standards (2019 standards) were made effective on January 1, 2020. The next update to the Title 24 energy efficiency standards (2022 standards) go into effect on January 1st, 2023. The 2019 Standards improve upon the 2016 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings.

Regional

Bay Area Air Quality Management District

The BAAQMD is the regional government agency that regulates sources of air pollution within the nine San Francisco Bay Area counties. The BAAQMD regulates GHG emissions through the following plans, programs, and guidelines.

Clean Air Plan. BAAQMD and other air districts prepare clean air plans in accordance with the state and federal Clean Air Acts. On April 19, 2017, the BAAQMD Board of Directors adopted the 2017 Clean Air Plan Spare the Air, Cool the Climate, an update to the 2010 Clean Air Plan. The Clean Air Plan is a comprehensive plan that focuses on the closely-related goals of protecting public health and protecting the climate. Consistent with the state's GHG reduction targets, the plan lays the groundwork for a long-term effort to reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

BAAQMD CEQA Air Quality Guidelines. The BAAQMD CEQA Air Quality Guidelines (Guidelines) were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The Guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background air quality information. The Guidelines also include recommended assessment methodologies for air toxics, odors, and GHG emissions. In June 2010, the BAAQMD's Board of Directors adopted CEQA thresholds of significance and an update of the CEQA Guidelines, which included significance threshold for GHG emissions based on the emission reduction goals for 2020 articulated by the state Legislature in AB 32. The first threshold, 1,100 metric tons (MT) CO₂e per year, is a numeric emissions level below which a project's contribution to global climate change would be less than cumulatively considerable. For larger and mixed-use projects, the Guidelines state that emissions would be less than cumulatively significant if the project as a whole would result in an efficiency of 4.6 MT CO₂e per service population or better to demonstrate consistency with required year 2020 reductions under AB 32 (BAAQMD, 2010).⁶

As discussed in Section IV.C, *Air Quality*, there was several court proceedings with respect to the thresholds of significance adopted by BAAQMD in 2010. There was no challenge to BAAQMD's 2010 GHG thresholds or the substantial evidence supporting those thresholds (BAAQMD, 2012). In May 2017, the Air District published a new version of the Guidelines, which included no changes to the GHG thresholds.

⁶ Due to case law, the City no longer relies on the 4.6 MTCO₂e/service population threshold.

Under BAAQMD's current Air Quality Guidelines, a local government may prepare a qualified GHG Reduction Strategy that is consistent with AB 32 goals. If a project is consistent with an adopted qualified GHG Reduction Strategy and General Plan that addresses the project's GHG emissions, it can be presumed that the project will not have significant GHG emissions under CEQA (BAAQMD, 2017b).

Local Plans, Ordinances and Policies

Housing Element

- ***Policy 7.1: Sustainable Residential Development Programs.*** In conjunction with the City's adopted Energy and Climate Action Plan, develop and promote programs to foster the incorporation of sustainable design principles, energy efficiency and smart growth principles into residential developments. Offer education and technical assistance regarding sustainable development to project applicants.
- ***Policy 7.2: Minimize Energy Consumption.*** Encourage the incorporation of energy conservation design features in existing and future residential development beyond minimum standards required by state building code.
- ***Policy 7.3: Encourage Development that Reduces Carbon Emissions.*** Continue to direct development toward existing communities and encourage infill development at densities that are higher than—but compatible with—the surrounding communities. Encourage development in close proximity to transit, and with a mix of land uses in the same zoning district, or on the same site, so as to reduce the number and frequency of trips made by automobile.
- ***Policy 7.4: Minimize Environmental Impacts from New Housing.*** Work with developers to encourage construction of new housing that, where feasible, reduces the footprint of the building and landscaping, preserves green spaces, and supports ecological systems.
- ***Policy 7.5: Climate Adaptation and Neighborhood Resiliency.*** Continue to study the potential local effects of climate change in collaboration with local and regional partners, such as BCDC. Identify potential adaptation strategies to improve community resilience to climate change, and integrate these strategies in new development, where appropriate.

Oakland Green Building Ordinance

The City of Oakland adopted mandatory green building standards for private development projects on October 19, 2010 (13040 C.M.S.). The following project types are included in the City's green building ordinance:

- Residential New Construction
- Residential Additions and Alterations
- Non-Residential New Construction
- Non-Residential Additions and Alterations
- Removal of a Historic Resource and New Construction

- Historic Residential Additions and Alterations
- Historic Non-Residential Additions and Alterations
- Mixed Use Construction
- Construction Requiring a Landscape Plan

All buildings or projects must comply with all requirements of the 2013 California Building Energy Efficiency Standards and subsequent updates to those standards, as well as meet a variety of checklist requirements. These standards indirectly reduce GHGs through design features lowering building energy use and will directly impact the proposed project as it contains new construction of residential and non-residential uses.

City of Oakland Municipal Code for Plug-in Electric Vehicle Charging Stations

As of March 2017, Chapter 15.04, Part 11 of the City's Municipal Code requires all new multifamily and non-residential buildings to include full circuit infrastructure for plug-in electric vehicle charging stations for at least 10 percent of the total parking spaces. In addition, inaccessible conduits for future expansion of plug-in electric vehicles spaces must be installed for 90 percent of the total parking at multi-family buildings and 10 percent of the total parking at non-residential buildings. The new requirements are designed to accelerate the installation of vehicle chargers to address demand.

City of Oakland GHG Reduction Targets and Climate Action Plan

In 2009, the Oakland City Council passed Resolution 82129 establishing GHG reduction targets for the City, setting goals of 36 percent reduction by 2020 and 83 percent reduction by 2050, relative to 2005. The Ordinance further authorized the City of Oakland to develop the Energy and Climate Action Plan to identify, evaluate, and recommend prioritized actions to reduce GHG emissions (City of Oakland, 2009).

Resolution No. 84126 C.M.S., approved December 4, 2012, adopted the Energy and Climate Action Plan, which provided the City's strategy through 2020 and included Oakland's first GHG Emissions Inventory as an Appendix.

In October 2018, the Oakland City Council passed Resolution 87183 adopting an interim citywide GHG emissions reduction target of 56 percent below 2005 levels by the year 2030 to keep the City on track to meeting its 2050 target. The staff report recommending adoption of the new, interim GHG reduction target for 2030 was based on the 2018 report *Pathways to Deep GHG Reduction in Oakland Final Report* (City of Oakland, 2018b), which uses the CURB⁷ planning tool to identify the most cost-effective GHG reduction strategies for achieving long-term GHG targets consistent with state and international goals. The City's 2018 CURB report represents a robust analysis of the land use and transportation sectors, identifying the following

⁷ Climate Action for Urban Sustainability (CURB) is a scenario planning tool that was developed by the World Bank, C40, Global Covenant of Mayors, and Bloomberg Philanthropies to assist cities in the creation of climate action plans. More information available at: <http://www.worldbank.org/en/topic/urbandevelopment/brief/the-curb-tool-climate-action-for-urban-sustainability>.

measures related to building and transportation systems that the City could take through 2030 to change its existing emissions trajectory and achieve its long-term GHG reduction goals:

- Update codes for new buildings to eliminate gas heating systems by 2030
- Accelerate the electrification of space heating systems and dramatically improve building envelopes in existing buildings
- Increase mass transit options and coverage
- Continue to build out pedestrian and bicycle infrastructure
- Accelerate the electrification of private vehicles and low-capacity taxi and transportation network company (TNC) vehicles

In July 2020, via Resolution 88267, Oakland City Council adopted the 2030 Equitable Climate Action Plan (ECAP), a comprehensive plan to achieve the 2030 GHG reduction target and increase Oakland's resilience to the impacts of the climate crisis, both through a deep equity lens (City of Oakland, 2020b). Alongside the 2030 ECAP, Council also adopted a goal to achieve community-wide carbon neutrality no later than 2045 (City of Oakland, 2020c.). Achieving carbon neutrality will require complete decarbonization (ensuring that all mechanical systems run on clean electricity) of Oakland's building sector.

The 2030 ECAP includes a set of 40 Actions projected to result in a 60 percent reduction in GHG emissions by 2030, relative to Oakland's 2005 emission levels. Actions are split into seven sectors:

- Transportation and Land Use
- Buildings
- Material Consumption and Waste
- Adaptation
- Carbon Removal
- City Leadership
- Port of Oakland

The following 2030 ECAP Actions direct the City to take actions that would affect private development in Oakland:

- ***TLU-1: Align all Planning Policies and Regulations with ECAP Goals and Priorities.*** In the course of scheduled revisions, the City will amend or update the General Plan, Specific Plans, Zoning Ordinance, Subdivision Regulations, Parks Master Plan, and appropriate planning policies or regulations to be consistent with the GHG reduction, adaptation, resilience, and equity goals in this ECAP. Appropriate planning policies should study the following strategies and incorporate such policies that are found not to have adverse environmental or equity impacts:

- Remove parking minimums and establish parking maximums where feasible, ensuring public safety and accessibility
 - Require transit passes bundled with all new major developments
 - Revise zoning such that the majority of residents are within 1/2-mile of the most essential destinations of everyday life
 - Provide density bonuses and other incentives for developments near transit that provide less than half of the maximum allowable parking
 - Update the Transit Oriented Development (TOD) Guidelines to further prioritize development of housing near transit, including housing for low, very low, and extremely low-income levels
 - Require structured parking be designed for future adaptation to other uses
 - Institute graduated density zoning
 - Remove barriers to and incentivize development of affordable housing near transit
 - Incorporate policies addressing sea level rise, heat mitigation, and other climate risks into zoning standards and all long-range planning documents. Revise these policies every five years based on current science and risk projections
 - Identify and remove barriers to strategies that support carbon reduction, adaptation, resilience, and equity goals, including community solar and energy storage
- ***TLU-2: Align Permit and Project Approvals with ECAP Priorities.*** The City will amend Standard Conditions of Approval (SCAs), as well as mitigation measures and other permit conditions, to align with the ECAP’s GHG reduction priorities. The City will explore adoption of a threshold of significance for GHG impacts to align with the ECAP. In applying conditions on permits and project approvals, the City will ensure that all cost-effective strategies to reduce GHG emissions from buildings and transportation are required or otherwise included in project designs, including infrastructure improvements like bicycle corridor enhancements, wider sidewalks, crossing improvements, public transit improvements, street trees and urban greening, and green stormwater infrastructure. Where onsite project GHG reductions are not cost-effective, prioritize local projects benefiting frontline communities.
 - ***TLU-5: Create a Zero Emission Vehicle (ZEV) Action Plan.*** Completion of the ZEV Action Plan by 2021 will increase adoption of electric vehicles and e-mobility while addressing equity concerns and prioritizing investment in frontline communities. The plan will set ambitious targets for ZEV infrastructure and be coordinated with other land use and mobility options so that ZEVs increase as a percentage of all vehicles while overall vehicle miles traveled decreases. The plan will address the following sectors: medium and heavy-duty vehicle electrification, including trucks and delivery vehicles; personal vehicle charging infrastructure in multifamily buildings, including affordable buildings; curbside charging; electric micromobility; workforce development; curbside charging in the public right-of-way; and City-owned parking facilities.
 - ***TLU-7: Rethink Curb Space.*** The City will prioritize use of curb space throughout the city by function. In order of priority, the City will allocate curb space for mobility needs for public transit and active transportation, such as walking and biking; access for people and

commerce (loading zones and short-term parking); activation; and storage for long-term parking. The City's adopted Bike and Pedestrian Plans will be used to determine mobility needs. Where on-street parking is provided, the City will revise pricing, availability, and location of parking to encourage (in order of priority) active transportation, public transit, and clean vehicles, without increasing cost-burden to low-income residents and other sensitive populations such as seniors. The City will also require parking costs to be unbundled from residential and commercial leases.

- ***TLU-8: Expand and Strengthen Transportation Demand Management Requirements.*** The City will increase TDM performance requirements for new developments where feasible to support the mode shifts necessary to achieve a low carbon transportation system. The City will expand the TDM program to include requirements for existing employers, and fund ongoing monitoring and enforcement of TDM requirements.
- ***B-1: Eliminate Natural Gas in New Buildings.*** By 2023, the City will prohibit new buildings and major renovations from connecting to natural gas infrastructure.
- ***B-4: Reduce Lifecycle Emissions from Building Materials.*** By 2023, the City will adopt a concrete code for new construction that limits embodied carbon emissions. In subsequent building code updates, the City will implement improved embodied carbon performance standards including additional materials and material-efficient building practices, with exemptions for cost barriers as needed to prevent these changes from directly increasing housing or rent costs. The City will ensure requirements are at least as stringent as the State of California procurement standards in effect at the time of the building code adoption. The City will explore ways of supporting local market development for low-lifecycle-emission and carbon-storing biogenic building materials.

In addition, ECAP measures that may apply directly to private development include:

- ***B-2: Plan for All Existing Buildings to be Efficient and All Electric by 2040.*** By 2022, the City will develop a policy roadmap to achieve decarbonization of the existing building stock by 2040, without additional cost burden or displacement risk to frontline communities.
- ***B-3: Prevent Refrigerant Pollution.*** By 2023, the City will develop a refrigerant management program that:
 - Establishes a phaseout timeline for high-GWP refrigerants in existing buildings
 - Integrates with existing local and regional energy efficiency and building electrification programs as appropriate
 - Ensures enforcement of performance measures
 - Identifies financial assistance for low-income residents and businesses; and

Aligns with refrigerant management strategies adopted by the State of California.

- ***MCW-1: Eliminate Disposal of Compostable Organic Materials to Landfills.*** The City will fully fund and implement the requirements of California SB1383 (Short-Lived Climate Pollutants: Organic Waste Methane Emissions Reduction), reduce surplus food waste, and eliminate disposal of compostable organic materials to landfills. The City will ensure robust engagement with businesses and institutions, including schools, and continued residential

outreach to reduce wasted food and effectively keep compostable material out of the landfill-bound waste stream.

- **MCW-3: Eliminate Single-Use Plastics and Prioritize Reuse in Food Preparation, Distribution, and Sale.** By 2023, the City will work with StopWaste and regional partners to pass an ordinance to reduce the prevalence of single-use plastic in Oakland and to ensure that reusable food service ware is the default in dining, including requiring reusable food service ware for all dine-in establishments.
- **MCW-6: Establish a Deconstruction Requirement.** The City will establish a deconstruction requirement to reduce demolition waste from construction and renovation and facilitate material reuse. The City will regulate hauling and processing of construction and demolition debris to ensure that salvageable materials are identified and removed for reuse instead of being recycled or disposed to landfill.
- **A-6: Expand and Protect Green Infrastructure and Biodiversity.** The City will fund and implement a green infrastructure program for the installation and maintenance of projects and existing civic resources such as the parks system and public spaces, to improve stormwater management, support biodiversity, reduce air pollution exposure, and increase access to natural spaces, including trees. The City will prioritize investment in frontline communities, and particularly in residential neighborhoods dominated by concrete and asphalt with limited green space and elevated air pollution, in Priority Conservation Areas, and in areas where green infrastructure, including trees and other types of vegetated buffers, can effectively address stormwater management issues and reduce air pollution exposure among sensitive populations.
- **CR-1: Develop Local Carbon Investment Program.** By 2023, the City will establish a program for both voluntary and compliance GHG mitigation fees to be invested locally. Prioritize projects in frontline communities, such as tree planting and urban greening, including in parks; building electrification; creek restoration; and neighborhood EV car share.
- **CR-2: Expand and Protect Tree Canopy Coverage.** By 2022, the City create a fifty-year Urban Forest Master Plan that prioritizes strategies to address disparities among neighborhoods in tree canopy coverage, and ensures that carbon sequestration is a major factor in tree planting targets, selection of tree species, and tree management practices.

City of Oakland Ordinance Requiring All-Electric Construction in Newly Constructed Buildings

On December 15, 2020, the City of Oakland adopted Ordinance 13632 prohibiting newly constructed buildings (both residential and commercial) from connecting to natural gas or propane. Newly constructed buildings must use a permanent supply of electricity as the source of energy for all space heating, water heating (including pools and spas), cooking appliances, and clothes drying appliances. The prohibition does not affect existing buildings, renovations or additions made to a structure, including attached accessory dwelling units or buildings that have received entitlements prior to the adoption date of the Ordinance or receive a building permit within one year from the adoption date. The ban includes a waiver application process, under certain criteria and upon appropriate findings, for developers who can demonstrate that it is not feasible for a new building to go 100 percent electric.

Oakland Standard Conditions of Approval (SCAs)

The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) in 2008, and they have since been amended and revised several times.⁸ Like other regulations, the SCAs apply to projects in the City regardless of their CEQA impacts. The SCAs are not mitigation measures and therefore are not listed as mitigation measures. If the Project Modifications are approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project Modifications. With implementation of the SCAs, some of the mitigation measures from the 2009 EIR are no longer needed, and this SEIR notes where that occurs.⁹ Below are the SCAs relevant to GHG emissions:

- **SCA GHG-1 (SCA 41): Project Compliance with the Equitable Climate Action Plan (ECAP) Consistency Checklist**

Requirement. The project applicant shall implement all the measures in the Equitable Climate Action Plan (ECAP) Consistency Checklist that was submitted during the Planning entitlement phase.

- a. For physical ECAP Consistency Checklist measures to be incorporated into the design of the project, the measures shall be included on the drawings submitted for construction-related permits.
 - b. For physical ECAP Consistency Checklist measures to be incorporated into the design of the project, the measures shall be implemented during construction.
 - c. For ECAP Consistency Checklist measures that are operational but not otherwise covered by these SCAs, including but not limited to the requirement for transit passes or additional Transportation Demand Management measures, the applicant shall provide notice of these measures to employees and/or residents and post these requirements in a public place such as a lobby or work area accessible to the employees and/or residents.
- **SCA TRANS-3 (SCA 77): Transportation and Parking Demand Management** (see Section IV.B, *Transportation and Circulation*);
 - **SCA TRANS-6 (SCA 80): Plug-In Electric Vehicle (PEV) Charging Infrastructure** (see Section IV.B, *Transportation and Circulation*).

⁸ A revised set of SCAs was recently published by the City of Oakland in December, 2020.

⁹ Where SCAs replace mitigation measures for the Project Modifications, such replacement does not indicate that the Project Modifications would have new or substantially more severe environmental impacts than the Approved Project.

IV.N.3 Impacts and Mitigation Measures

Significance Criteria

The City of Oakland has established thresholds of significance for CEQA impacts, which incorporate those in Appendix G of the CEQA Guidelines (City of Oakland, 2020). Based on these thresholds, the Project Modifications would have a significant impact on the environment if it would:

- A. For a project involving a stationary source, produce total emissions of more than 10,000 metric tons of CO₂e annually. [NOTE: Stationary sources are projects that require a BAAQMD permit to operate.]:
- B. For a project involving a land use development¹⁰, fail to demonstrate consistency with the 2030 Equitable Climate Action Plan (ECAP) adopted by the City Council on July 28, 2020. [NOTE: Land use developments are projects that do not require a BAAQMD permit to operate.] Consistency with the 2030 ECAP can be shown by either:
 - (a) committing to all of the GHG emissions reductions strategies described on the ECAP Consistency Checklist¹¹, or
 - (b) complying with the GHG Reduction Standard Condition of Approval that requires a project-level GHG Reduction Plan quantifying how alternative reduction measures will achieve the same or greater emissions than would be achieved by meeting the ECAP Consistency Checklist.

Methodology

The City of Oakland's current adopted thresholds for GHG emissions rely upon the technical and scientific basis for the City's 2030 Equitable Climate Action Plan (ECAP), which provide substantial evidence that adherence to the 2030 ECAP action items will achieve GHG emissions reduction targets of 56 percent below 2005 levels by 2030 and 83 percent below 2005 levels by 2050. These reduction targets are more aggressive than the State's adopted 2030 reduction target of 40 percent below 1990 levels (per AB 32). Therefore, reductions below the City of Oakland's reduction targets also meet the State's adopted 2030 goals. The analysis of potential impacts from the projects GHG emissions and contributions to global climate change are therefore assessed using an ECAP Consistency Review Checklist.

Both the BAAQMD and the California Air Pollution Control Officers Association consider GHG impacts to be exclusively cumulative impacts (BAAQMD, 2012; CAPCOA, 2008). Therefore, assessment of significance is based on whether a project's GHG emissions represent a cumulatively considerable contribution to the global atmosphere, which is addressed in the analysis below.

¹⁰ For projects that involve both a stationary source and a land use development, calculate each component separately and compare to the applicable threshold.

¹¹ The ECAP Consistency Checklist includes all of the project-level GHG emissions reduction strategies that are either regulatory requirements or are necessary at a project level to meet the adopted city-wide GHG emissions reduction targets of 56% reduction from 2005 levels by 2030 and 83% reduction by 2050. As new strategies are adopted to align with the 2030 ECAP, the Checklist will be updated and new projects will be expected to achieve the revised strategies or comply with GHG Reduction Standard Condition of Approval.

Impacts

Impact GHG-1: The Project Modifications would not involve a stationary source that would produce total emissions of more than 10,000 metric tons of CO₂e annually. (Criterion A) (*Less than Significant*)

Although Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would occur on the same onshore Project site within the same overall building envelope as the Approved Project and no additional stationary sources would result from these modifications.

Mitigation: None Required.

Comparison to 2009 EIR: While no analysis was conducted in the 2009 EIR, the Project Modifications make no changes to stationary sources compared to the Approved Project. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information,” pursuant to CEQA Guidelines Section 15162.

Impact GHG-2: The Project Modifications would not involve a land use development that fails to demonstrate consistency with the 2030 Equitable Climate Action Plan (ECAP). (Criterion B) (*Less than Significant*)

Construction-related GHG Emissions

Although the Project Modifications would potentially change the location of one tower, potentially resulting in two towers on Parcel M, no change is proposed to the number or height of the Approved Project towers. The Project Modifications would occur within the same overall building envelopes as the Approved Project. Other than the additional approximately 10 acres of water surface area to accommodate the expanded marina, the Project Modifications would occur within the same Project site as the Approved Project and this SEIR assumes that there would be no substantial increase in duration of residential construction-related activity with approval of the Project Modifications. The Project Modifications would result in an approximate 10 percent increase in labor force and associated worker trips to and from the site, as well as an approximately 10 percent increase in delivery trips to develop the additional 600 residential units on Phases III and IV. The marina expansion component (Phase VI) would result in additional construction-related delivery trips and extended construction timeframe due to limited in-water construction. Phase VI is anticipated to be constructed over five years during the seasons in which construction is permitted, with approximately 20 construction materials delivery trips per season.

Operational GHG Emissions

Emissions from the water taxi service would generate incremental GHG emissions. However, the Project Modifications would not expand the existing fleet of watercraft, which presently consists of two diesel-powered vessels. The water taxi service provider has stated that it plans to convert

its fleet to be all-electric fleet by 2025, after which the fleet would only generate marginal GHG emissions (68 metric tons annually associated with the electricity). This will result in an overall reduction of GHG emissions compared to the existing water taxi fleet. The Project Modifications would slightly change existing taxi service routes, but the change would not significantly alter water taxi miles traveled from existing conditions. Additionally, a water taxi provides a transportation alternative to single-occupancy vehicle trips. Further detail is included in the Air Quality Technical Report prepared for the Project Applicant by Ramboll and included in Appendix D.

The addition of 600 units also would not significantly increase the project's GHG emissions because the towers housing the 600 units would become all electric, which decreases GHG emissions compared to the Project as approved in 2009.

Consistency with ECAP

An ECAP Consistency Review Checklist was prepared for the Project (see Appendix D). The purpose of the ECAP Consistency Review Checklist is to determine, for purposes of compliance with CEQA, whether a development project complies with the ECAP and the City's GHG emissions reduction targets. The Project Modifications incorporate features such as:

- adaptive structured parking,
- implementation of a transportation demand management program,
- installation of plug-in electric vehicle charging infrastructure,
- prioritization of sidewalk and curb space consistent with City's Bike and Pedestrian Plans,
- implementation of all electric buildings (for the 600 new residential units),
- designed in compliance with the City's Green Building Ordinance,
- implementation of a waste reduction and recycling plan prior to obtaining building permits,
- compliance with the Tree Preservation Ordinance, and
- compliance with the Creek Protection, Stormwater Management and Discharge Control Ordinance.

According to the Project Modifications' ECAP Consistency Review Checklist, the Project has committed to all applicable GHG emissions reduction strategies, and would, therefore, be in compliance with the ECAP. The Project Modifications would be required to implement SCA GHG-1, Project Compliance with the ECAP Consistency Checklist, which would ensure that all ECAP Checklist items are incorporated into the Project Modifications. Since the Project Modifications have committed to all applicable GHG emissions reductions strategies described on the ECAP Consistency Checklist, GHG emissions associated with the Project Modifications would be less than cumulatively considerable.

Mitigation: None Required.

Comparison to 2009 EIR: No analysis was conducted in the 2009 EIR. As stated above, the Project would make a less than cumulatively considerable contribution to significant cumulative impacts from GHG emissions. No new significant environmental effects or substantial increase in the severity of previously identified significant effects would result from changes to the Project due to Project Modifications, “changed circumstances,” or “new information,” pursuant to CEQA Guidelines Section 15162.

IV.N.4 References

- Alameda County, 2009. Community Greenhouse Gas Emissions 2005 Roll-up Inventory, Methodology, and Results. Published January 2009. Available: <http://www.co.alameda.ca.us/climate/inventory.htm>. Accessed February 5, 2021.
- Anderegg, William R. L., J.W. Prall, J. Harold, S.H., Schneider, 2010. *Expert Credibility in Climate Change; Proceedings of the National Academy of Sciences of the United States of America*. 2010;107:12107-12109.
- Bay Area Air Quality Management District (BAAQMD), 2010. *Draft BAAQMD CEQA Air Quality Guidelines*, May 2010. Available: <http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>. Accessed February 5, 2021.
- , 2012. *BAAQMD CEQA Air Quality Guidelines Final*, May 2012. Available: <http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>.
- , 2017a. *Clean Air Plan*. Adopted April 19, 2017. Available: <http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>. Accessed February 5, 2021.
- , 2017b. *BAAQMD CEQA Air Quality Guidelines Final*, May 2017. Available: <http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>.
- California Air Pollution Control Officers Association (CAPCOA), 2008. *CEQA & Climate Change*. January 2008.
- California Air Resources Board (CARB), 2009. *Climate Change Scoping Plan: A Framework for Change*. Published December 2008; amended version posted May 11, 2009. Available: February 5, 2021.
- , 2014. *First Update to the Climate Change Scoping Plan: Building on the Framework Pursuant to AB 32*. Published May 2015. Available: <https://www.arb.ca.gov/cc/scopingplan/document/updatescopingplan2013.htm>. Accessed February 5, 2021.
- , 2017. *California’s 2017 Climate Change Scoping Plan*. Published November, 2017. Available: <https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>. Accessed February 2021.

- , 2018. *California Greenhouse Gas Emission Inventory – 2018 Edition*. Published July 2018. Available: <http://www.arb.ca.gov/cc/inventory/data/data.htm>. Accessed February 5, 2021.
- California Department of Finance, 2018. *E-5 Population and Housing Estimates for Cities, Counties and the State*. Available: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/>. Accessed February 2021.
- California Natural Resources Agency (CNRA), 2009. *Final Statement of Reasons For Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97*. Available: http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf. Accessed February 2021.
- California Energy Commission (CEC), 2016. *California’s 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings*. Available: <http://www.energy.ca.gov/2015publications/CEC-400-2015-037/CEC-400-2015-037-CMF.pdf>. Accessed February 5, 2021.
- City of Oakland, 2009. Resolution No. 82129. *Resolution Approving Preliminary Planning Targets for Development of the Draft Oakland Energy and Climate Action Plan*, June 30, 2009.
- City of Oakland, 2020. *Equitable Climate Action Plan*. Adopted July 2020. Available: <https://www.oaklandca.gov/projects/2030ecap>. Accessed: February 5, 2021.
- City of Oakland, 2020, *CEQA Thresholds of Significance Guidelines*, December 20, 2020.
- City of Oakland, 2018a. *2015 Greenhouse Gas Emissions Inventory Report*, Public Works Department, Environmental Services Division. March 2018.
- City of Oakland, 2020. *Standard Conditions of Approval*, first adopted November 2008; amended December 2020.
- Donahue, S.H. et al., 2019. *Brief of Public Interest Organization Petitioners (USCA Case #18-1114, Doc#1772455)*, filed February 7, 2019. Available: http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2019/20190207_docket-18-1114_brief-1.pdf. Accessed, February 5, 2021.
- Federal Register, 2018. *Vol. 83, No. 165/ Friday, August 24, 2018/ Proposed Rules*. Available: <https://www.govinfo.gov/content/pkg/FR-2018-08-24/pdf/2018-16820.pdf>. Accessed on: February 5, 2021.
- Governor’s Office of Planning and Research, 2018. *Discussion Draft: CEQA and Climate Change Advisory*. December. Available at http://opr.ca.gov/docs/20181228-Discussion_Draft_Climate_Change_Advisory.pdf. Accessed February 5, 2021.
- Grant, E., 2019. *Initial Brief for Respondents (USCA Case #18-1114, Doc #1781696)*, filed April 8, 2019. Available: http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2019/20190408_docket-18-1114_brief.pdf. Accessed, February 5, 2021.

- Intergovernmental Panel on Climate Change (IPCC), 2014. *Climate Change 2014 Synthesis Report*. Available: <http://ipcc.ch/report/ar5/syr/>. Accessed February 5, 2021.
- Metropolitan Transportation Commission and Association of Bay Area Governments (MTC and ABAG), 2013. *Plan Bay Area*. Adopted July 18, 2013. Available: <https://www.planbayarea.org/previous-plan>. Accessed February 5, 2021.
- , 2017. *Plan Bay Area 2040*. Adopted July 26, 2017. Available: <https://www.planbayarea.org/>. Accessed February 5, 2021.
- National Aeronautic and Space Administration (NASA), 2015. *Scientific consensus: Earth's climate is warming*. Updated September 2015. Available: <http://climate.nasa.gov/scientific-consensus>. Accessed February 5, 2021.
- U.S. Environmental Protection Agency (U.S. EPA), 2019. *Inventory of U.S. Greenhouse Gas Emissions and Sinks Fast Facts*. Available: <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-fast-facts>. Accessed February 5, 2021.
- World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD), March 2013. *Greenhouse Gas Protocol: Required Greenhouse Gases in Inventories*. Available: <http://ghgprotocol.org/corporate-standard#supporting-documents>. Accessed February 5, 2021.

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CHAPTER V

Alternatives

V.A Criteria for Selecting Alternatives

CEQA requires that the EIR compare the effects of a “reasonable range of alternatives” to the effects of the project. The alternatives selected for comparison would attain most of the basic objectives of the project and avoid or substantially lessen one or more significant effects of the project (CEQA Guidelines Section 15126.6). The “range of alternatives” is governed by the “rule of reason” which requires the EIR to set forth only those alternatives necessary to permit an informed and reasoned choice by the decision-making body and informed public participation (CEQA Guidelines Section 15126.6[f]). CEQA generally defines “feasible” to mean an alternative that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, technological, and legal factors.

Therefore, each of the alternatives to the Project Modifications in this SEIR was selected based on the following factors:

1. The extent to which the alternative would accomplish most of the basic objectives of the Project Modifications (identified in Chapter III);
2. The extent to which the alternative would avoid or lessen any of the identified significant environmental effects of the Project Modifications (discussed throughout Chapter IV);
3. The feasibility of the alternative, taking into account site suitability, availability of infrastructure, property control (ownership), and consistency with applicable plans and regulatory limitations;
4. The extent to which the alternative contributes to a “reasonable range” of alternatives necessary to permit a reasoned choice; and
5. The requirement of the CEQA Guidelines to consider a no-project alternative and to identify an environmentally superior alternative in addition to the no-project alternative (CEQA Guidelines, Section 15126.6(e)). The purpose of evaluating the no-project alternative is to allow decision makers to compare the impacts of approving the Project Modifications with the impacts of not approving the Project Modifications.

V.B Alternatives Selected for Consideration

Alternatives to the Project Modifications generally represent various means of reducing or avoiding long-term impacts. Consistent with the selection criteria identified above, the City has identified the following reasonable range of alternatives to be addressed in this SEIR. It should be

noted that the 2009 EIR contained a full range of alternatives to the Approved Project. Those alternatives are part of the City’s CEQA record but are not revisited here. The detailed description of each alternative and the alternative analyses compared to the Project Modifications are presented in Section V.C in this chapter:

- **Alternative 1:** No Project
- **Alternative 2:** No Marina Expansion
- **Alternative 3:** No Tower Relocation

The set of selected alternatives above are considered to reflect a “reasonable range” of feasible alternatives in that they include reduced scenarios that lessen and/or avoid significant and less-than-significant effects of the Project Modifications. The Project Modifications are specific to the Approved Project site; therefore, this analysis does not consider an off-site alternative.

To determine alternatives that would avoid or lessen any of the identified significant environmental effects of the Project Modifications, the significant impacts must be considered. Impacts that are not mitigated to less than significant are considered “significant and unavoidable” (“SU”). Approval of the Project Modifications would result in no significant and unavoidable project or cumulative impacts, as identified in Chapters IV of this SEIR.

The Project Modifications would be required to comply with the Approved Project’s mitigation measures or mitigation measures identified in the SEIR to avoid significant impacts related to the topics listed below:

Land Use Impacts

- *Land use change, General Plan and zoning consistency, community division*
 - Impact LU-1: The Project Modifications would develop a higher density of residential uses in buildings immediately adjacent to and surrounding Fifth Avenue Point but would not result in the physical division of an existing community. This impact would be reduced to a less-than-significant level with implementation of 2009 EIR Mitigation Measure A.1 requiring the Project Applicant to incorporate site plan design elements into the Project.
- *Conflict with adjacent land uses*
 - Impact LU-2: The Project Modifications would not fundamentally conflict with adjacent or nearby uses. This impact would be reduced to a less-than-significant level with implementation of 2009 EIR Mitigation Measures A.3a and A.3b requiring the Project Applicant to implement the specific regulations and standards of the proposed Planned Waterfront Zoning District along with all other mitigation measures identified throughout the SEIR.
- *Habitat Conservation Plan*
 - Impact LU-4: The Project Modifications would not fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan. This impact would be reduced to a less-than-significant level with implementation of 2009 Mitigation Measure I.2b requiring the Project Applicant to avoid or minimize adverse effects on

jurisdictional waters to the extent practicable in accordance with Section 404 of the Clean Water Act.

- *Land Use Cumulative*
 - Impact LU-5: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project site, would not result in a significant adverse cumulative land use, plans, and policy impact with implementation of 2009 Mitigation Measures A.1, A.3a, and A.3b.

Hydrology and Water Quality Impacts

- *Creek Impacts*
 - Impact HYD-5: The Project Modifications would not alter site drainage that could generate a change to flow of a creek or stream, and would not conflict with elements of the City of Oakland creek protection ordinance. This impact would be reduced to a less-than-significant level with implementation of 2009 Mitigation Measure D.1 requiring the Project Applicant to comply with all NPDES requirements, RWQCB General Construction Permit requirements, and all City regulations and Creek Protection Permits requirements.

Biological Resources Impacts

- *Aquatic species habitat*
 - Impact BIO-2: Construction activities required for the Project Modifications would not have a substantial adverse effect, either directly or through habitat modifications, on special-status aquatic species. This impact would be reduced to a less-than-significant level with implementation of Mitigation Measure BIO-2 requiring the Project Applicant to prepare a National Marine Fisheries Service-approved sound attenuation monitoring plan prior to the start of any in-water construction that would require pile driving.
- *Eel grass habitat*
 - Impact BIO-3: Construction activities required for the Project Modifications would not result in 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, U.S. Fish and Wildlife Service, or National Marine Fisheries Service. This impact would be reduced to a less-than-significant level with implementation of Mitigation Measure BIO-3 requiring the Project Applicant to conduct a National Marine Fisheries Service-approved eelgrass survey prior to the start of any in-water construction.
- *Wetlands*
 - Impact BIO-4: The Project Modifications would not result in a substantial adverse effect on potentially jurisdictional wetlands or waters of the U.S. under the jurisdiction of the U.S. Army Corps of Engineers (USACE), waters of the state under the jurisdiction of the Regional Water Quality Control Board (RWQCB), and wetlands under the jurisdiction of BCDC. This impact would be reduced to a less-than-significant level with implementation of 2009 Mitigation Measures I.2a, I.2b, I.2c, I.2d, and I.2e requiring the Project Applicant to comply with Section 404 of the Clean Water Act by preparing a Corps-Verified Wetland Delineation, minimizing effects on wetlands and other waters, obtaining the necessary

- regulatory permits and other agency approvals, and employing Best Management Practices to maintain water quality and control erosion and sedimentation during construction.
- *Fish migration*
 - Impact BIO-5: The Project Modifications would not substantially 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. This impact would be reduced to a less-than-significant level with implementation of 2009 Mitigation Measure I.3 requiring the Project Applicant to implement measures for protection of salmonids and Pacific herring during dredging.
 - *Habitat Conservation Plan*
 - Impact BIO-6: The Project Modifications would not fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan. This impact would be reduced to a less-than-significant level with implementation of 2009 Mitigation Measures I.2b requiring the Project Applicant to avoid or minimize adverse effects on jurisdictional waters in accordance with Section 404 of the Clean Water Act.
 - *Biology Cumulative*
 - Impact BIO-8: The Project Modifications, in conjunction with other foreseeable development in the City and along its shoreline, would not result in impacts on wetlands, other waters of the U.S., or special-status species with implementation of 2009 Mitigation Measures I.2a, I.2b, I.2c, I.2d, I.2e, and I.3 and Mitigation Measures BIO-2 and BIO-3.

Table V-1, Summary Comparison of Impacts: Project Modifications and Alternatives, at the end of this chapter compares all the impacts of the Project Modifications to each of the alternatives to the Project Modifications and indicates whether the impacts would have the same, fewer, or greater effect on the environment. The No Project Alternative 1 is the same as the Approved Project and would be subject to the 2009 EIR mitigation measures. For each alternative, the difference in the severity of impact relative to the Project Modifications is indicated with up and down arrows. For the No Project Alternative 1, the level of impact is indicated with an “N” representing no change from the 2009 EIR impact conclusions.

V.C Alternatives Analysis

This section describes each alternative followed by a discussion of the impacts of the alternative compared to those identified for the Project Modifications. The impacts associated with the Project Modifications and each alternative are for buildout conditions. All applicable City Standard Conditions of Approval (SCA) are assumed to be part of each alternative, just as they are also assumed to be part of the Project Modifications.

As permitted by CEQA, the effects of the alternatives are discussed in less detail than the impact discussions for the Project Modifications in Chapter IV (CEQA Guidelines Section 15126.6[d]). However, the alternatives analysis is conducted at a sufficient level of detail to provide the public, other public agencies, and City decision-makers adequate information to evaluate the alternatives and for the City to approve any of the alternatives without further environmental review.

V.C.1 No Project Alternative 1

Description

The purpose of describing and analyzing a No Project alternative is to allow decision makers to compare the impacts of approving the Project Modifications with the impacts of not approving the Project Modifications. This alternative is analyzed consistent with Section 15126.6(e) of the CEQA *Guidelines*, which states that the No Project Alternative must discuss the existing conditions at time the notice of preparation is published as well as the events or actions that would reasonably be expected to occur in the foreseeable future if the Project Modifications were not approved. The events or actions that would reasonably be expected to occur in the foreseeable future include the Approved Project.

Under the No Project Alternative, the Project Modifications would not be adopted. The proposed additional residential units, updated parking ratios, and expanded marina infrastructure and operation including water taxi dock would not be constructed. The approved tower location would remain on Phase II and would not be relocated to Phase III or IV. Future development on the Project site would continue to be consistent with the Approved Project, as described in Chapter III, *Project Description*. Development on the Project site would proceed under existing approvals and would be subject to the 2009 EIR mitigation measures.

This alternative would continue to meet the objectives of the Approved Project but would not meet any of the additional objectives of the Project Modifications. There would be no development beyond the Approved Project on the site; the lack of a change would not maximize building design and unit count. It would not increase marina capacity or improve the marina's economic viability and the Approved Project marina would not accommodate passenger loading and unloading to support a water taxi service.

Comparison of Alternative 1 (No Project) Impacts to the Impacts of the Project Modifications

The No Project Alternative assumes that the existing site remains as is and development continues under the existing approvals. As such, compared to the Modified Project (Approved Project with the Project Modifications), this alternative would avoid new biological resources impacts related to the Project Modifications' construction of the expanded marina and water taxi operations, which would be less than significant with the implementation of mitigation. Under this alternative, marina construction would not shift away from Clinton Basin and potential impacts related to the use of dredged material as fill would be the same as identified in the 2009 EIR and more severe when compared with the Project Modifications.

The No Project Alternative assumes development of the Approved Project because this development has been approved, is under construction, and is reasonably expected to be built out in the foreseeable future. Therefore, the impact conclusions with respect to all topic areas would remain precisely the same as described in the 2009 EIR for the Approved Project. For this reason, the difference in the severity of each impact relative to the Project Modifications is indicated with

up and down arrows and the level of impact is indicated with an “N” representing no change from the 2009 EIR impact conclusions.

V.C.2 No Marina Expansion Alternative 2

Description

The No Marina Expansion Alternative looks at the impacts on environmental effects by eliminating the expansion of the marina infrastructure and operation from the Project Modifications. Under this Alternative, the marina would be developed according to existing approvals resulting in no more than 167 slips on the Project site, including 35 existing and 25 proposed new slips for a total of 60 slips in Clinton Basin Marina, and 107 slips in the Fifth Avenue Marina. The Project site would remain the same as the Approved Project and would not expand by approximately 10 acres of water surface to accommodate an expanded marina. The marina infrastructure would not wrap along the shoreline of the peninsula containing Phases I and II and water taxi service would not be accommodated. The Approved Project would be developed along with other components of the Project Modifications including the proposed additional residential units, updated parking ratios, and proposed tower relocation from Phase II to either Phase III or IV.

This alternative would continue to meet the objectives of the Approved Project but would not meet three of the four additional objectives of the Project Modifications. New development would not increase marina capacity, improve the marina’s economic viability, or accommodate passenger loading and unloading to support a water taxi service.

Comparison of Alternative 2 (No Marina Expansion) Impacts to the Impacts of the Project Modifications

Land Use

An assessment of overall consistency (or inconsistency) with applicable plans and policies is included Section IV.A, *Land Use, Plans, and Policies* and, as with the Approved Project, no conflicts were identified for the Project Modifications. The No Marina Expansion Alternative would not add in-water infrastructure along the entire shoreline of the peninsula containing Phases I and II. As with the Approved Project, and consistent with the Land Use and Transportation Element (LUTE) Policies W3.4 and W11.6, this alternative would preserve existing views of the water’s edge from locations close to or within the Project site, and would provide additional and expanded views of open spaces and the Estuary from onsite and offsite locations. The Project Modifications’ expanded marina would alter views of the open water, and as an appropriate use associated with waterfront activities, this change is consistent with LUTE Policies W3.4 and W11.2. Therefore, the No Marina Expansion Alternative would not change the land use policy consistency conclusions for the Project Modifications.

Without the additional marina infrastructure, the No Marina Expansion Alternative would not contribute to the potentially significant impact related to land use character and habitat conservation plans identified in the 2009 EIR. However, this alternative would result in the same

overall land use impacts and require the same mitigation measures as those identified for the Project Modifications.

Water Taxi. Elimination of the water taxi operation only would not change the land use, plans, and policies conclusions for the Project Modifications.

Transportation

Without accommodating passenger loading and unloading to support an existing water taxi service, this alternative would not offer the additional transit option for residents and, therefore, would not result in a reduction of overall vehicle miles traveled for the Project Modifications.

Air Quality

As with the Project Modifications, operation of the No Marina Expansion Alternative would result in CAPs and precursor emissions, including ROG, NO_x, PM₁₀ and PM_{2.5} from a variety of emissions sources, including onsite area sources and mobile on-road sources. However, the No Marina Expansion Alternative would result in reduced air quality emissions relative to the Project Modifications. The marina expansion component of the Project Modifications is anticipated to result in approximately 12 a.m. peak hour trips and 34 p.m. peak hour trips. This would not represent a meaningful contribution to an increase in Criteria Air Pollutants, precursor emissions, and localized CO concentrations associated with the Project Modifications and would not change the associated impact conclusions.

Water Taxi. Without the expanded marina infrastructure and associated water taxi service, the Project Modifications' increase in ROG, NO_x, PM₁₀ and PM_{2.5} emissions would be reduced. This would reduce the less-than-significant impact related to increases in CAPs and precursor emissions.

Hydrology and Water Quality

Overall, the No Marina Expansion Alternative would result in the same less-than-significant hydrology and water quality impacts as those identified for the Project Modifications. However, the No Marina Expansion would not shift marina construction away from Clinton Basin. As analyzed in the 2009 EIR, construction of the Approved Project marina within Clinton Basin would result in the need for dredging and use of dredged material as fill. Potential impacts associated with dredging in Clinton Basin, which could require disturbance, removal, and disposal of contaminated sediment that may result in adverse impacts to aquatic organisms and water quality, would be the same as identified in the 2009 EIR and more severe when compared with the Project Modifications. Relative to the Project Modifications, the No Marina Expansion Alternative would reduce the amount of marine-related uses of pesticides, cleaners, and other common household products that could enter stormwater runoff and therefore reduce the less-than-significant impact. Further, the 2009 Mitigation Measure D.1 would not apply to the No Marina Expansion Alternative.

Water Taxi. Elimination of the water taxi operation only would not change the hydrology and water quality conclusions for the Project Modifications.

Cultural Resources

Overall, the No Marina Expansion Alternative would result in the same less-than-significant cultural resources impacts as identified for the Project Modifications. The No Marina Expansion Alternative would not develop a new marina and boat slips within 100 feet of the Ninth Avenue Terminal Bulkhead Building and would not alter views of the water from Shoreline Park. However, as described in Section IV.E, *Cultural Resources*, the expanded marina would not substantially block views, would be compatible with the Terminal Building in both function and design, would be considered reversible development, and would not contribute to the Approved Project's significant and unavoidable impact with respect to the significance of an historic resource. Relative to the Project Modifications, the No Marina Expansion Alternative would not expand the Project site by approximately 10 acres of water surface and therefore reduce the less-than-significant impacts related to archaeological and tribal cultural resources.

Water Taxi. Elimination of the water taxi operation only would not change the cultural resources conclusions for the Project Modifications.

Geology and Soils

Overall, the No Marina Expansion Alternative would result in the same less-than-significant geology and soils impacts as identified for the Project Modifications. However, the No Marina Expansion would not shift marina construction away from Clinton Basin. As analyzed in the 2009 EIR, construction of the Approved Project marina within Clinton Basin would result in the need for dredging and use of dredged material as fill. Potential impacts related to settlement or subsidence from the use of dredged material as fill, would be the same as identified in the 2009 EIR and more severe when compared with the Project Modifications.

Water Taxi. Elimination of the water taxi operation only would not change the geology and soils conclusions for the Project Modifications.

Noise

Overall, the No Marina Expansion Alternative would result in the same less-than-significant noise impacts as identified for the Project Modifications. The marina expansion component of the Project Modifications is anticipated to result in approximately 12 a.m. peak hour trips and 34 p.m. peak hour trips. This would not represent a meaningful contribution to increased noise levels along existing roadways. Therefore, the No Marina Expansion Alternative would not reduce this the less-than-significant vehicular noise impact identified for the Project Modifications. Further, eliminating passenger loading and unloading to support an existing water taxi service.

Water Taxi. Elimination of the water taxi operation only would reduce the less-than-significant operational noise impact associated with the proposed water taxi landing and service.

Biological Resources

The No Marina Expansion Alternative would not expand the Project site, would not include additional in-water construction activity including installation of 14-, 16-, and 18-inch steel piles,

and would not result in the potential to generate elevated sound levels that could result in impacts to marine mammal species in the vicinity of the Project site. The marina would be developed as described for the Approved Project would proceed under existing approvals and would be subject to the 2009 EIR mitigation measures. Mitigation Measure BIO-2 requiring the Project Applicant to prepare an NMFS-approved sound attenuation monitoring plan, would not apply to this alternative.

The No Marina Expansion Alternative would not expand the Project site into an area potentially populated with eelgrass, which is designated an essential fish habitat area of particular concern. Therefore, Mitigation Measure BIO-3, requiring the Project Applicant to conduct eelgrass surveys, would not apply to the No Marina Expansion Alternative.

2009 Mitigation Measures I.2a, I.2b, I.2c, I.2d, and I.2e requiring an updated wetland delineation and associated wetland avoidance, best management practices, and agency permits; and 2009 Mitigation Measure I.3, requiring the Project Applicant to implement measures for protection of salmonids and Pacific herring during dredging projects, would be required for the Approved Project and would apply to the No Marina Expansion Alternative.

The No Marina Expansion would not shift marina construction away from Clinton Basin. As analyzed in the 2009 EIR, construction of the Approved Project marina within Clinton Basin would result in the need for dredging and use of dredged material as fill. Potential impacts associated with dredging in Clinton Basin could result in temporary disturbance of wetland and channel habitat, adverse impacts to aquatic organisms and water quality, the potential for impact on aquatic migratory corridors, would be the same as identified in the 2009 EIR though more severe when compared with the Project Modifications.

Overall, the No Marina Expansion Alternative would result in reduced impacts to marine mammal species in the vicinity of the Project site resulting from in-water construction noise, and reduced impacts to essential fish habitat area of particular concern resulting from in-water construction in an area potentially populated with eelgrass. No new mitigation measures would be required. All other less-than-significant and less-than-significant with mitigations biological resources impacts would remain the same as those identified for the Project Modifications.

Water Taxi. Elimination of the water taxi operation only would not change the biological resources conclusions for the Project Modifications.

Aesthetics, Shadow, and Wind

The No Marina Expansion Alternative would not result in changes to scenic views and vistas from the public viewpoints selected for analysis as compared to the Approved Project. Views from the four viewpoint locations depicted in Section IV.K, *Aesthetics, Shadow, and Wind*, would be similar to the second image representing the Approved Project in the existing setting (see Figures IV.K-2 through IV.K-5). Therefore, this alternative would not result in beneficial effect of the Project Modifications on public scenic vistas.

With the exception of public scenic vistas, the No Marina Expansion Alternative would result in the same less-than-significant aesthetics impacts as those identified for the Project Modifications.

Water Taxi. Elimination of the water taxi operation only would not change the aesthetics, shadow, and wind conclusions for the Project Modifications.

Public Services and Recreation

Compared with the Approved Project, the No Marina Expansion Alternative would not increase boating activity, would not result in an increase in demand for maritime emergency services and law enforcement, and would not contribute to a less-than-significant impact to public services. All other less-than-significant public services impacts would remain the same as those identified for the Project Modifications.

Water Taxi. Elimination of the water taxi operation only would not change the public services conclusions for the Project Modifications.

Utilities and Service Systems

The energy required to operate additional gasoline and diesel marine vehicles was estimated and the impact to energy resource was determined to be less than significant (see Section IV.M, *Utilities*). Specifically, the additional marine vehicles from the additional 158 boat slips would consume approximately 7,738 gallons of gasoline and 402 gallons of diesel per year (Appendix G). The No Marina Expansion Alternative would not result in additional marine vehicles and thus would use less energy than the Project Modifications. All other less-than-significant utilities impacts would remain the same as those identified for the Project Modifications.

Water Taxi. The energy required to operate the proposed water taxi service, either by diesel-powered vessels or all electric vessels, was estimated and the impact to energy resource was determined to be less than significant. Specifically, the diesel-powered vessels under Project Modifications operations would consume approximately 180,075,392 gallons of diesel fuel per year, and the electric vessel would consume approximately 729,160 kWh of electricity per year. Overall, elimination of the water taxi operation would reduce energy consumption but would not change the utilities conclusions for the Project Modifications.

Greenhouse Gas Emissions

Overall, the No Marina Expansion Alternative would result in the same or reduced GHG emissions associated with the Project Modifications. Elimination of the marina expansion and water taxi components of the Project Modifications would not change the Project Applicant's requirement to implement SCA GHG-1, Project Compliance with the Equitable Climate Action Plan (ECAP) Consistency Checklist. Therefore, the No Marina Expansion Alternative would not result in a meaningful change in this less-than-significant impact.

Other Topic Areas

The No Marina Expansion Alternative would result in the same less-than-significant and less-than-significant with mitigation impacts as those identified for the Project Modifications in the following topic areas:

- Hazards and Hazardous Materials
- Population and Housing

V.C.3 No Tower Relocation Alternative 3

Description

The No Tower Relocation Alternative looks at the impacts on environmental effects by eliminating the new potential tower locations from the Project Modifications. The proposed new tower locations on Parcel M, aligning with the northernmost portion of the parcel along the Embarcadero, and on Parcel L, aligning with Clinton Basin on the easternmost portion of the parcel, would not be added to project approvals. There would be no potential for two towers on Parcel M, which would increase building mass in Phases III or IV and decrease building mass in Phase II. Under this Alternative, the approved locations for high-rise tower elements of up to 24 stories (240 feet) would remain on Parcels A, H, J, K and M as analyzed in the 2009 EIR (see Figure III-5). The Approved Project would be developed along with other components of the Project Modifications including the proposed additional residential units, updated parking ratios, and proposed marina expansion to accommodate 158 additional boat slips and a water taxi service.

This alternative would continue to meet the objectives of the Approved Project as well as the four additional objectives of the Project Modifications.

Comparison of Alternative 3 (No Tower Relocation) Impacts to the Project Impacts

Land Use, Plans and Policies

Potentially significant impacts related to the division of Fifth Avenue Point from its surroundings and a potential land use conflict were identified for the Approved Project and the Project Modifications would have the same potential issues. The No Tower Relocation Alternative would still result in a residential density increase on the Project site and would still contribute to these potentially significant impacts and would not reduce the severity of the impacts identified for the Project Modifications.

Overall, the No Tower Relocation Alternative would result in the same land use impacts and require the same mitigation measures as those identified for the Project Modifications.

Biological Resources

The No Tower Relocation Alternative would not add potential tower sites adjacent to Channel Park and adjacent to the estuary. As such, this alternative would result in a reduced potential bird-building collisions and a reduced impact on special-status birds. The Project Applicant would not be required to implement **SCA BIO-1** or submit a Bird Collision Reduction Plan for City review. All other less-than-significant and less-than-significant with mitigations biological resources impacts would remain the same as those identified for the Project Modifications.

Aesthetics, Shadow and Wind

The No Tower Relocation Alternative would not add two potential tower sites to Phases III and IV and would not alter the Approved Project's aesthetics impacts from on-shore development. The new tower locations were evaluated for changes to visual character and quality, scenic vistas, new sources of light and glare, and wind. While the shift in tower location would alter the effects of the Approved Project, it would not increase the severity of these impacts. Therefore, the No Tower Relocation Alternative would not reduce these impacts compared with the Project Modifications.

The area of potential new shadow from new tower locations was analyzed in Section IV.K, *Aesthetics, Shadow, and Wind* (see Figures IV.K-6 through IV.K-14). The location on Parcel M would not create any new potential shadow compared with what was analyzed in the 2009 EIR. The new location on Parcel L would generate potential new shadow on Fifth Avenue Point and Chanel Park during fall and spring mornings, and a portion of Fifth Avenue Point during summer and winter midday. These new areas of potential shading would not occur under the No Tower Relocation Alternative. However, although this alternative would change where shadows would fall, it would not decrease the total area of potential new shadow as it would not change the total number of towers on the Project site.

Other Topic Areas

The No Tower Relocation Alternative would not add two potential tower sites to Phases III and IV, potentially resulting in two towers on Parcel M and increased building mass in Phases III or IV. The Approved Project would be developed along with other components of the Project Modifications including the proposed additional residential units, updated parking ratios, and proposed marina expansion. This alternative would result in the same less-than-significant and less-than-significant with mitigation impacts as those identified for the Project Modifications in the following topic areas:

- Transportation and Circulation
- Air Quality
- Hydrology and Water Quality
- Cultural Resources
- Geology and Soils
- Noise
- Hazards and Hazardous Materials
- Population and Housing
- Public Services and Recreation
- Utilities and Service Systems
- Greenhouse Gas Emissions

V.D Environmentally Superior Alternative

CEQA Guidelines requires that the EIR identify an environmentally superior alternative (CEQA Guidelines, Section 15126.6), which is the CEQA alternative that reduces or avoids the environmental impacts identified for the Project Modifications to the greatest extent. The evaluation above first considers the extent to which each of the CEQA alternatives reduces or avoids the significant impacts identified for the Project Modifications. The extent to which an alternative reduces, avoids, or increases the severity of less-than-significant impacts identified for the Project Modifications is also considered. The comparison of impacts resulting with the Project and all of the alternatives discussed in this chapter is summarized in **Table V-1, Summary Comparison of Impacts**, at the end of this chapter.

In summary, the No Marina Expansion Alternative is considered the environmentally superior alternative as it would avoid and/or substantially reduce new Biological Resources impacts of the Project Modifications to the greatest extent compared to each of the other alternatives, and still meet some of the basic objectives of the Project Modifications.

**TABLE V-1
SUMMARY COMPARISON OF IMPACTS: PROJECT AND ALTERNATIVES**

Impacts, Criterion, and Significance	Project Modifications	No Project Alternative	No Marina Expansion Alternative	No Tower Relocation Alternative
IV.A Land Use, Plans, and Policies				
Impact LU-1: The Project Modifications would develop a higher density of residential uses in buildings immediately adjacent to and surrounding Fifth Avenue Point but would not result in the physical division of an existing community. (Criterion A) (<i>Less than Significant with Mitigation</i>)	LSM	N↓	LSM	LSM
Impact LU-2: The Project Modifications would not fundamentally conflict with adjacent or nearby uses. (Criterion B) (<i>Less than Significant with Mitigation</i>)	LSM	N↓	LSM↓	LSM
Impact LU-3: The Project Modifications would not be consistent with the existing land use classification and zoning district for the Project site. (Criterion C) (<i>Less than Significant</i>)	LS	N	LS	LS
Impact LU-4: The Project Modifications would not fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan. (Criterion D) (<i>Less than Significant with Mitigation</i>)	LSM	N	LS	LSM
Impact LU-5: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project site, would not result in a significant adverse cumulative land use, plans, and policy impact. (<i>Less than Significant with Mitigation</i>)	LSM	N↓	LSM↓	LSM
IV.B Transportation and Circulation				
Impact Trans-1: The Project Modifications would not conflict with a plan, ordinance, or policy addressing the safety or performance of the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths. (Criterion A) (<i>Less than Significant</i>)	LS	N↓	LS	LS
Impact Trans-2: The Project Modifications would not cause substantial additional per capita vehicle miles traveled (VMT). (Criterion B) (<i>Less than Significant</i>)	LS	N↓	LS↑	LS
Impact Trans-3: The Project Modifications would not substantially induce additional automobile travel by increasing physical roadway capacity in congested areas or by adding new roadways to the network. (Criterion C) (<i>Less than Significant</i>)	LS	N	LS	LS
Impact Trans-4: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project site, would not result in a significant adverse cumulative transportation and circulation impact. (<i>Less than Significant</i>)	LS	N↓	LS↑	LS

Legend:

LS Less than significant or negligible impact; no mitigation required

LSM Less than significant impact, after mitigation

SU Significant and unavoidable adverse impact, after mitigation or standard conditions

N No Change from the Approved Project

↑↓ Impact is more severe or less severe than Project Modification impact, after mitigation, but with no change in impact determination.

TABLE V-1 (CONTINUED)
SUMMARY COMPARISON OF IMPACTS: PROJECT AND ALTERNATIVES

Impacts, Criterion, and Significance	Project Modifications	No Project Alternative	No Marina Expansion Alternative	No Tower Relocation Alternative
IV.C Air Quality				
Impact AQ-1: The Project Modifications would not result in average daily emissions of 54 pounds per day of ROG, NO _x , of PM _{2.5} or 82 pound per day of PM ₁₀ during construction. (Criterion A) (<i>Less than Significant</i>)	LS	N	LS	LS
Impact AQ-2: The Project Modifications would not generate operational average daily emissions of more than 54 pounds per day of ROG, NO _x , or PM _{2.5} or 82 pounds per day of PM ₁₀ ; or result in maximum annual emissions of 10 tons per year of ROG, NO _x , or PM _{2.5} or 15 tons per year of PM ₁₀ . (Criterion B) (<i>Less than Significant with Mitigation</i>)	LS	N↓	LS↓	LS
Impact AQ-3: Project Modifications would not contribute to CO concentrations exceeding the CAAQS. (Criterion C) (<i>Less than Significant</i>)	LS	N↓	LS	LS
Impact AQ-4: The Project Modifications would not introduce new sources of TACs nor expose unplanned residential land uses to TACs. (Criteria D and E) (<i>Less than Significant</i>)	LS	N	LS	LS
Impact AQ-5: The Project Modifications would not create or expose sensitive receptors to substantial objectionable odors. (Criterion F) (<i>Less than Significant</i>)	LS	N	LS	LS
Impact AQ-6: Emissions generated by Project Modifications, combined with emissions from other past, present and reasonably foreseeable projects would not result in a cumulative air quality impact. (<i>Less than Significant with Mitigation</i>)	LSM	N↓	LS	LSM
IV.D Hydrology and Water Quality				
Impact HYD-1: The Project Modifications would not violate water quality standards, result in erosion or siltation on- or off-site, contribute substantial runoff, and/or substantially degrade water quality. (Criteria A, C, F, and G) (<i>Less than Significant</i>)	LS	N↑	LS↑	LS
Impact HYD-2: The Project Modifications would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge that would result in a net deficit in aquifer volume or lowering the local groundwater table. (Criterion B) (<i>Less than Significant</i>)	LS	N	LS	LS
Impact HYD-3: The Project Modifications would not result in substantial flooding on or offsite or create or contribute substantial runoff, which would exceed the capacity of existing or planned stormwater drainage systems. (Criteria D and E) (<i>Less than Significant</i>)	LS	N	LS	LS

Legend:

LS Less than significant or negligible impact; no mitigation required

LSM Less than significant impact, after mitigation

SU Significant and unavoidable adverse impact, after mitigation or standard conditions

N No Change from the Approved Project

↑↓ Impact is more severe or less severe than Project Modification impact, after mitigation, but with no change in impact determination.

TABLE V-1 (CONTINUED)
SUMMARY COMPARISON OF IMPACTS: PROJECT AND ALTERNATIVES

Impacts, Criterion, and Significance	Project Modifications	No Project Alternative	No Marina Expansion Alternative	No Tower Relocation Alternative
IV.D Hydrology and Water Quality (cont.)				
Impact HYD-4: The Project Modifications would not expose people or structures to a significant risk of loss, injury or death involving flooding. (Criteria H, I, J, and K) (<i>Less than Significant</i>)	LS	N	LS	LS
Impact HYD-5: The Project Modifications would not alter site drainage that could generate a change to flow of a creek or stream, and would not conflict with elements of the City of Oakland creek protection ordinance. (Criteria L and M) (<i>Less than Significant with Mitigation</i>)	LSM	N	LS	LSM
Impact HYD-6: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project site, would not result in cumulative impacts with respect to hydrology and water quality. (<i>Less than Significant</i>)	LSM	N↑	LS↑	LSM
IV.E Cultural and Tribal Cultural Resources				
Impact CUL-1: The Project Modifications would not cause a substantial adverse change in the significance of an historical resource. (Criterion A) (<i>Less than Significant</i>)	LS	N	LS	LS
Impact CUL-2: The Project Modifications would not cause a substantial adverse change in the significance of an archaeological resource; directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or disturb any human remains, including those interred outside of forma cemeteries. (Criteria B, C, and D) (<i>Less than Significant</i>)	LS	N↓	LS↓	LS
Impact CUL-3: The Project Modifications would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074. (Criterion E) (<i>Less than Significant</i>)	LS	N↓	LS↓	LS
Impact CUL-4: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project site, would not result in significant cumulative impacts with respect to historical resources, archaeological resources, human remains, and tribal cultural resources. (<i>Less than Significant</i>)	LS	N↓	LS↓	LS

Legend:

LS Less than significant or negligible impact; no mitigation required

LSM Less than significant impact, after mitigation

SU Significant and unavoidable adverse impact, after mitigation or standard conditions

N No Change from the Approved Project

↑↓ Impact is more severe or less severe than Project Modification impact, after mitigation, but with no change in impact determination.

TABLE V-1 (CONTINUED)
SUMMARY COMPARISON OF IMPACTS: PROJECT AND ALTERNATIVES

Impacts, Criterion, and Significance	Project Modifications	No Project Alternative	No Marina Expansion Alternative	No Tower Relocation Alternative
IV.F Geology and Soils				
Impact GEO-1: The Project Modifications would not expose people or structures to risk of loss, injury, or death related to settlement or seismic ground shaking, liquefaction, or earthquake-induced settlement due to a major earthquake within the Project area. (Criterion A) (<i>Less than Significant</i>)	LS	N↑	LS↑	LS
Impact GEO-2: The Project Modifications would not result soil erosion or loss of topsoil that would create a risk to life, property or waterways. (Criterion B) (<i>Less Than Significant</i>)	LS	N	LS	LS
Impact GEO-3: The Project Modifications would not create substantial risks to life or property as a result of being located on expansive soils; above a well, pit, swamp, mound, tank vault, or unmarked sewer line; above landfills or unknown fill soils; or on soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems. (Criteria C, D, E, and F) (<i>Less Than Significant</i>)	LS	N	LS	LS
Impact GEO-4: The Project Modifications, when combined with closely related past, present, or reasonably foreseeable development in the vicinity, would not result in significant cumulative impacts with respect to geology, soils, or seismicity. (<i>Less than Significant</i>)	LS	N↑	LS↑	LS
IV.G Noise and Vibration				
Impact NOI-1: The Project Modifications would not generate construction-related noise in violation of the City of Oakland Noise Ordinance on nuisance standards or that exceeds the criteria established by the Federal Transit Administration (FTA). (Criteria A, B, and H) (<i>Less than Significant</i>)	LS	N	LS	LS
Impact NOI-2: The Project Modifications would result in generation of additional vehicle traffic that would not result in a 5-dBA permanent increase in existing ambient noise levels in the Project vicinity. (Criterion C) (<i>Less than Significant</i>)	LS	N↓	LS	LS
Impact NOI-3: The Project Modifications would include a landing dock to accommodate an existing water taxi service and additional marina slips to accommodate recreational vessels that would not generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise. (Criterion D) (<i>Less than Significant</i>)	LS	N/A↓	N/A↓	LS

Legend:

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TABLE V-1 (CONTINUED)
SUMMARY COMPARISON OF IMPACTS: PROJECT AND ALTERNATIVES

Impacts, Criterion, and Significance	Project Modifications	No Project Alternative	No Marina Expansion Alternative	No Tower Relocation Alternative
IV.G Noise and Vibration (cont.)				
Impact NOI-4: The Project Modifications would not expose persons to noise greater than the applicable California Noise Insulation Standards nor expose the project to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan. (Criteria E and F) <i>(Less than Significant)</i>	LS	N	LS	LS
Impact NOI-5: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects, would not cause a substantial permanent increase in ambient noise levels in the project vicinity. <i>(Less than Significant)</i>	LS	N↓	LS↓	LS
Impact NOI-6: The water taxi component of the Project Modifications, in combination with other past, present, and reasonably foreseeable future projects, would not generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise at future receptors of the Approved Project. (Criterion D) <i>(Less than Significant)</i>	LS	N/A↓	N/A↓	LS
IV.H Hazards and Hazardous Materials				
Impact HAZ-1: The Project Modifications would not create a significant hazard to the public or the environment through the routine transport, use, disposal, accidental release, or storage of hazardous or acutely hazardous materials. (Criteria A, B, and C) <i>(Less than Significant)</i>	LS	N↓	LS	LS
Impact HAZ-2: The Project Modifications would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed schools. (Criterion D) <i>(Less than Significant)</i>	LS	N	LS	LS
Impact HAZ-3: The Project Modifications would not be located on a site identified under Government Code section 65962.5. (Criterion E) <i>(No Impact)</i>	LS	N	LS	LS
Impact HAZ-4: The Project Modifications would not result fewer than two emergency access routes for streets exceeding 600 feet in length. (Criterion F) <i>(Less than Significant)</i>	LS	N	LS	LS
Impact HAZ-5: The Project Modifications would not fundamentally impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. (Criterion I) <i>(Less than Significant)</i>	LS	N	LS	LS

Legend:

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TABLE V-1 (CONTINUED)
SUMMARY COMPARISON OF IMPACTS: PROJECT AND ALTERNATIVES

Impacts, Criterion, and Significance	Project Modifications	No Project Alternative	No Marina Expansion Alternative	No Tower Relocation Alternative
IV.H Hazards and Hazardous Materials (cont.)				
Impact HAZ-6: The Project Modifications, when combined with other past, present, and reasonably foreseeable cumulative development in the vicinity, would not result in cumulative hazardous materials impacts. (<i>Less than Significant</i>)	LS	N↓	LS	LS
IV.I Biological Resources				
Impact BIO-1: The Project Modifications would not 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. (Criterion A) (<i>Less than Significant</i>)	LS	N	LS	LS↓
Impact BIO-2: Project Modifications would not have a substantial adverse effect, either directly or through habitat modifications, on special-status aquatic species. (Criterion A) (<i>Less than Significant with Mitigation</i>)	LSM	N↓	LS	LSM
Impact BIO-3: Construction activities required for the Project Modifications would not result in 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, U.S. Fish and Wildlife Service, or National Marine Fisheries Service. (Criterion B) (<i>Less than Significant with Mitigation</i>)	LSM	N↓	N/A	LSM
Impact BIO-4: Project Modifications would not result in a substantial adverse effect on potentially jurisdictional wetlands or waters of the U.S. under the jurisdiction of the U.S. Army Corps of Engineers (USACE), waters of the state under the jurisdiction of the Regional Water Quality Control Board (RWQCB), and wetlands under the jurisdiction of BCDC. (Criterion C) (<i>Less than Significant with Mitigation</i>)	LSM	N↑	N/A	LSM
Impact BIO-5: The Project Modifications would not substantially 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. (Criterion D) (<i>Less than Significant with Mitigation</i>)	LSM	N↑	LS	LSM
Impact BIO-6: The Project Modifications would not fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan. (Criterion E) (<i>Less than Significant with Mitigation</i>)	LSM	N	LS	LSM

Legend:

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TABLE V-1 (CONTINUED)
SUMMARY COMPARISON OF IMPACTS: PROJECT AND ALTERNATIVES

Impacts, Criterion, and Significance	Project Modifications	No Project Alternative	No Marina Expansion Alternative	No Tower Relocation Alternative
IV.I Biological Resources (cont.)				
Impact BIO-7: The Project Modifications would not fundamentally conflict with the City of Oakland Tree Protection Ordinance or Creek Protection Ordinance. (Criteria F and G) (Less than Significant)	LS	N	LS	LS
Impact BIO-8: The Project Modifications, in conjunction with other foreseeable development in the City and along its shoreline, would not result in impacts on wetlands, other waters of the U.S., and special-status species. (Less than Significant with Mitigation)	LSM	N	LS	LSM↓
IV.J Population and Housing				
Impact POP-1: The Project Modifications would not induce substantial population growth in a manner not contemplated in the General Plan, either or indirectly, such that additional infrastructure is required but the impacts of such were not previously considered or analyzed (Criterion A) (Less than Significant)	LS	N	LS	LS
Impact POP-2: The Project Modifications would not directly or indirectly displace substantial numbers of existing people or housing units necessitating the construction of replacement housing elsewhere. (Criteria B and C) (Less than Significant)	LS	N	LS	LS
Impact POP-3: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects, would not induce substantial population growth in a manner not contemplated in the General Plan and would not result in the displacement of a substantial numbers of people or housing units housing. (Less than Significant)	LS	N	LS	LS
IV.K Aesthetics, Shadow, and Wind				
Impact AES-1: The Project Modifications would not have a substantial adverse effect on a public scenic vista. (Criterion A) (Less than Significant)	LS	N	LS↓	LS
Impact AES-2: The Project Modifications would not substantially degrade the existing visual character or quality of the site and its surroundings. (Criterion C) (Less than Significant)	LS	N	LS↓	LS
Impact AES-3: The Project Modifications would create a new source of light, but would not substantially or adversely affect day or nighttime views in the area. (Criterion D) (Less than Significant)	LS	N	LS↓	LS

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TABLE V-1 (CONTINUED)
SUMMARY COMPARISON OF IMPACTS: PROJECT AND ALTERNATIVES

Impacts, Criterion, and Significance	Project Modifications	No Project Alternative	No Marina Expansion Alternative	No Tower Relocation Alternative
IV.K Aesthetics, Shadow, and Wind (cont.)				
Impact AES-4: The Project Modifications would not cast shadow that would substantially impair a nearby use reliant on sunlight, including the following functions: a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors; the beneficial use of any public or quasi-public open space; a historic resource. (Criteria E, F, G, and H) (Less than Significant)	LS	N	LS	LS↓
Impact AES-5: The Project Modifications would require approval of a general plan amendment and rezoning, and would be consistent with the policies and regulations addressing the provision of adequate light to appropriate uses. (Criterion I) (Less than Significant)	LS	N	LS	LS
Impact AES-6: The Project Modifications would not create winds that exceed 36 mph for more than one hour during daylight hours during the year. (Criterion J) (Less than Significant)	LS	N	LS	LS
Impact AES-7: The Project Modifications, combined with cumulative development in the Project vicinity and citywide, would not result in significant cumulative impact related to scenic vistas, visual character, light sources, shadow, or wind. (Less than Significant)	LS	N	LS↓	LS↓
IV.L Public Services and Recreation				
Impact PS-1: The Project Modifications would not involve or require new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency medical services. (Criterion A.i) (Less than Significant)	LS	N	LS	LS
Impact PS-2: The Project Modifications would not result in an increase in demand for police services that would require new or physically altered police facilities in order to maintain acceptable service ratios, response times, or other performance objectives. (Criterion A.ii) (Less than Significant)	LS	N	LS	LS
Impact PS-3: The Project Modifications would not result in an increase in new students for public schools at a level that would require new or physically altered school facilities in order to maintain acceptable performance objectives. (Criterion A.iii) (Less than Significant)	LS	N	LS	LS

Legend:

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TABLE V-1 (CONTINUED)
SUMMARY COMPARISON OF IMPACTS: PROJECT AND ALTERNATIVES

Impacts, Criterion, and Significance	Project Modifications	No Project Alternative	No Marina Expansion Alternative	No Tower Relocation Alternative
IV.L Public Services and Recreation (cont.)				
Impact PS-4: The Project Modifications would not result in an increase in demand for libraries at a level that would require new or physically altered library facilities in order to maintain acceptable service ratios. (Criterion A.iv) (Less than Significant)	LS	N	LS	LS
Impact PS-5: The Project Modifications would not result in an increase in demand for maritime emergency services and law enforcement at a level that would require new or physically altered governmental facilities to maintain acceptable performance objectives. (Criterion A.iv) (Less than Significant)	LS	N	LS↓	LS
Impact PS-6: The Project Modifications would not result in an increase in demand for parks and recreational services at a level that would generate substantial physical deterioration or require the construction of new or physically altered facilities in order to maintain service ratios. (Criteria B and C) (Less than Significant)	LS	N	LS	LS
Impact PS-7: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project site, would not result in significant cumulative impacts with respect to public services including recreation. (Less than Significant)	LS	N	LS↓	LS
IV.M Utilities and Service Systems				
Impact UTL-1: The Project Modifications would not generate water demand that exceeds water supplies available from existing entitlements and resources. (Criterion C) (Less Than Significant)	LS	N	LS	LS
Impact UTL-2: Impact UTL-2: The Project Modifications would not result in a determination by the wastewater treatment provider that it does not have adequate capacity to serve the projected demand in addition to the providers' existing commitments and would not exceed the wastewater treatment capacity of the San Francisco Bay Regional Water Quality Control Board (RWQCB). (Criteria A and D) (Less than Significant)	LS	N	LS	LS
Impact UTL-3: The Project Modifications would not require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects exceed the capacity of the City's stormwater drainage facilities. (Criterion B) (Less than Significant)	LS	N	LS	LS

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TABLE V-1 (CONTINUED)
SUMMARY COMPARISON OF IMPACTS: PROJECT AND ALTERNATIVES

Impacts, Criterion, and Significance	Project Modifications	No Project Alternative	No Marina Expansion Alternative	No Tower Relocation Alternative
IV.M Utilities and Service Systems (cont.)				
Impact UTL-4: The Project Modifications would be served by a landfill with sufficient permitted capacity to accommodate the Project Modifications' solid waste disposal needs and would not violate applicable federal, state, and local statutes and regulations related to solid waste. (Criteria E and F) (Less Than Significant)	LS	N	LS	LS
Impact UTL-5: The Project Modifications would not result in a determination by the energy provider that serves the Project site that it does not have adequate capacity to serve the Project Modification's projected demand in addition to the providers' existing commitments, and would not violate applicable federal, state, or local statutes and regulations relating to energy standards. (Criteria G and H) (Less Than Significant)	LS	N	LS↓	LS
Impact UTL-6: The Project Modifications, in combination with other past, present, and reasonably foreseeable future projects within and around the Project area, would not result in significant cumulative impacts with respect to utilities and service systems. (Less than Significant)	LS	N	LS↓	LS
IV.N Greenhouse Gas Emissions				
Impact GHG-1: The Project Modifications would not involve a stationary source that would produce total emissions of more than 10,000 metric tons of CO ₂ e annually. (Criterion A) (Less than Significant)	LS	N	LS	LS
Impact GHG-2: The Project Modifications not involve a land use development that fails to demonstrate consistency with the 2030 Equitable Climate Action Plan (ECAP) (Criterion A) (Less than Significant)	LS	N	LS	LS

Legend:

LS Less than significant or negligible impact; no mitigation required

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CHAPTER VI

Impact Overview and Growth Inducement

In accordance with CEQA Section 21100(b)(2) and CEQA Guidelines Section 15126.2, this chapter identifies significant impacts on the environment that cannot be avoided and significant effects on the environment that would be irreversible if the Project Modifications were implemented. In addition, this chapter analyzes the issue of “growth inducement,” which is defined below.

VI.A Significant, Unavoidable and Cumulative Environmental Impacts

A significant and unavoidable impact would result if a project were to reach or exceed the defined threshold of significance and no feasible mitigation measures are available to reduce the impact to a less-than-significant level. Thresholds of significance and potential impacts of the Project Modifications are identified along with feasible mitigation measures in Chapter IV, *Environmental Setting, Impacts, Standard Conditions of Approval and Mitigation Measures*.

For each topic in Chapter IV, the analysis also identifies cumulative impacts, which Section 15355 of the CEQA Guidelines defines as “two or more individual effects which, when considered together, are considerable, or which can compound or increase other environmental impacts.” This section of the guidelines goes on to state that “the cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonable foreseeable probable future projects.”

As discussed in the introduction to Chapter IV, this SEIR analyzes the potential cumulative effects of the Project Modifications by considering the Project Modifications in the context of projections of future growth and a list of past, present, and reasonably foreseeable future projects. If a cumulative effect is identified, the analysis then evaluates whether the Project Modifications’ contribution to the cumulative effect is *cumulatively considerable*, which is considered a significant impact.

Approval of the Project Modifications would result in no significant and unavoidable (SU) impacts or cumulative impacts, as identified in Chapters IV of this SEIR.

VI.B Significant Irreversible Environmental Effects

Section 15126.2(d) of the State CEQA Guidelines states that, “Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, because a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.”

Generally, a project would result in significant irreversible environmental changes if:

- the project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project;
- the project would involve a large commitment of nonrenewable resources or the proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy); or
- the primary and secondary impacts would generally commit future generations to similar uses.

VI.B.1 Irreversible Damage from Environmental Accidents

While no significant irreversible environmental damage, such as what might occur as a result of an accidental spill, is anticipated, whenever hazardous materials are present there is always the potential for accidents which may damage the environment. The presence and use of hazardous materials anticipated with the Project Modifications are described in Section IV.H *Hazards and Hazardous Materials*. As discussed in this section, compliance with federal, state, and local regulations, would reduce potential impacts to a less-than-significant level. Based on this conclusion, any potential damage would not be irreversible.

VI.B.2 Consumption of Non-Renewable Resources

In an urban context where there are no agricultural or forest lands or minerals and mines, consumption of non-renewable resources involves the use of non-renewable energy sources, including fossil fuels, natural gas, and electricity. The Project Modifications would utilize these resources for construction, transportation, building heating and lighting, and other activities, as described in Section IV.M, *Utilities, Service Systems, and Energy*.

As discussed in that section, the Project Modifications would not result in wasteful, inefficient, and or unnecessary use of energy and would not conflict with adopted energy conservation plans or violate energy standards and energy impacts would be less than significant.

VI.B.3 Changes in Land Use Which Would Commit Future Generations

The Project Modifications would involve increasing residential density and providing for an expanded marina on a 64.2-acre site that is already approved for residential, commercial, open space, and marina uses. The Project Modifications would not change the intended land uses of the Project site, as currently approved, but rather increase the density of those uses. Therefore, because the Project Modifications would occur within a site that is already zoned for the proposed uses, it would not commit future generations to significant changes in land use.

VI.C Growth-Inducing Impacts

The CEQA Guidelines require that an EIR evaluate the growth-inducing impacts of a proposed action (section 15126.2(d)). A growth-inducing impact is defined in the CEQA Guidelines section 15126.2(d) as:

[T]he ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth ... It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can have direct and/or indirect growth-inducement potential. Direct growth inducement would result if a project involved construction of new housing that would result in new residents moving to the area. A project can have indirect growth-inducement potential if it were to establish substantial new permanent employment opportunities (e.g., commercial, industrial or governmental enterprises) or if it were to involve a substantial construction effort with substantial short-term employment opportunities and indirectly stimulate the need for additional housing and services to support the new employment demand. Similarly, under CEQA, a project could indirectly induce growth if it were to expand roadway capacity or remove an obstacle to additional growth and development, such as removing a constraint on required public services or utilities, for example by adding a sewage treatment plant.

The Project Modifications are located within the Project site for the Approved Project though expanded by approximately 10 acres of water surface to accommodate the expanded marina. The existing land use designation (PWD-4) and zoning district (PWD-4), which were created following the approval of the 2009 EIR, include specific regulations to facilitate the development of an integrated mixed-use project that allow for flexibility in the maximum number of dwelling units that could be developed on a particular parcel such that the total maximum number of dwelling units (or net density) on the Project site as a whole could not be exceeded. As stated under Section IV.J, *Population and Housing*, Impact POP-1, the addition of up to 600 new residential units and 158 boat slips is estimated to increase the residential population on the site by approximately 1,007 persons. The number of residents in Oakland is projected to increase from 428,827 in 2018 to 650,630 by 2040 (see Table IV.J-1), or 221,803 more residents than in 2018. This estimated population increase of 1,007 residents would constitute approximately 0.5 percent of this projected City population increase. Therefore, the population increase

associated with the Project Modifications would be accounted for within the anticipated growth for Oakland. In addition, the region is in the midst of a well-documented housing crisis, indicating that rather than inducing growth, housing production is needed to meet existing demand (see Section IV.J, *Population and Housing*). There is no employment generated by the Project Modifications that would impact employment growth projections.

The Project Modifications would be located on an infill site in an urbanized area and would not involve any extensions of roads or other infrastructure that could enable additional development in currently undeveloped areas. As addressed in Chapter IV, the Project Modifications would be adequately served by existing utilities, infrastructure, and public services and would therefore, not require new utility extensions or services that would have significant environmental effects.

In summary, the increase in the residential population generated by the Project Modifications would not result in an unplanned increase in City of Oakland population. Consequently, the Project Modifications would not have a significant growth-inducing impact.

VI.D Effects Found Not To Be Significant

This section presents information regarding impacts of the Project Modifications for environmental topic areas that were determined to have no impact by the City of Oakland. According to CEQA Guidelines Section 15128, an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR.

Effects of the Project Modification on the following environmental topic areas were found not to be significant during the SEIR process: Agriculture and Forest Resources and Mineral Resources. The following presents a brief summary of Project Modification effects found not to be significant, including a discussion of reasons they would not be significant.

VI.D.1 Agricultural Resources

The entirety of Downtown Oakland and the lands surrounding the Oakland Estuary, including the Project site, are located within an area designated as urban and built-up land by the California Department of Conservation's (DOC) Farmland Mapping and Monitoring Program (DOC, 2018). There are no Williamson Act contracts on or adjacent to the Project site (DOC, 2015). Thus, the Project Modifications would not convert designated-Farmland or cause a conflict with an existing Williamson Act contract.

The City of Oakland does not designate land uses for agriculture or forestry in its General Plan or Zoning Map (City of Oakland, 2017). The Project site currently has a land use designation of PWD-4 and PWD-4 zoning designation. The Project site does not contain agricultural production or forest land on site. Thus, the Project Modifications would not conflict with existing zoning for agricultural use, forest land, or timberland, nor would it result in the loss or conversion of forest land.

The Project site is currently undergoing construction activity related to the development of the Approved Project. The increased density at the Project site from 50 units per acre to 58 units per acre, and 158 more boat slips would not result in the conversion of farm land to non-agricultural use, or conversion of forest land to non-forest use. Therefore, no impact to agricultural and forestry resources would occur.

VI.D.2 Mineral Resources

The Project site is located on land classified by the DOC's Division of Mines and Geology as Mineral Resource Zone 1 (MRZ-1), or an area where adequate geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence (DOC, 1987, 1996, and 2019). The Project site is not zoned for, or immediately adjacent to, lands designated as a mineral resource zone by the City's General Plan (City of Oakland, 2015, and 2017). As a result, the Project Modifications would not interfere with any mineral extraction operations, and would not result in the loss of land designated for mineral resources. As such, the Project Modifications would not result in the loss of availability of a known mineral resource and would not result in the loss of a locally important mineral resource recovery site. Therefore, no impact to mineral resources would occur.

VI.E References

- California Department of Conservation (DOC), 2019. State Mining and Geology Board Guidelines, *Guidelines for Classification and Designation of Mineral Lands*, <https://www.conservation.ca.gov/smgf/Guidelines/Documents/ClassDesig.pdf>, accessed February 5, 2019.
- DOC, 2018. *Alameda County Important Farmland 2016*, August 2018. <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/>, accessed February 2, 2019.
- DOC, 2015. Division of Land Resource Protection, *Alameda County Williamson Act FY 2014/2015*. <ftp://ftp.consrv.ca.gov/pub/dlrp/wa/>, accessed February 4, 2019.
- DOC, 1996. Division of Mines and Geology, *Generalized Mineral Land Classification Map of the South San Francisco Bay Production - Consumption Region, by Susan Kohler-Antablin Plate-1*. ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR_96-03/, accessed October 10, 2019.
- DOC, 1987. Division of Mines and Geology, *Special Report 146, Part II, Mineral Land Classification: Aggregate Materials in the San Francisco-Monterey Bay Area*. ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR_146-2/, accessed February 5, 2019.
- City of Oakland, 2017. Bureau of Planning, *City of Oakland Zoning and Estuary Policy Plan Maps*, May 12, 2017. <https://cao-94612.s3.amazonaws.com/documents/oak063935.pdf>, accessed February 4, 2019.

City of Oakland, 2015. Planning & Building Department, *General Plan Designations*, May 19, 2015. www2.oaklandnet.com/oakca1/groups/ceda/documents/report/oak053714.pdf, accessed February 4, 2019.

CHAPTER VII

Report Preparers

VII.A Lead Agency

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Biological Resources: Garrett Leidy, Liza Ryan
Cultural and Tribal Cultural Resources: Amber Grady, Ashleigh Sims,
Heidi Koenig
Geology and Soils: Brandon Carroll
Greenhouse Gas Emissions: Chris Sanchez
Hazards and Hazardous Materials: Brandon Carroll, Jennifer Ostner
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(Sea Level Rise)
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