ESTUARY PARK MASTER PLAN

CEQA Checklist - Addendum #2 to the Oak to Ninth Avenue (Brooklyn Basin) Project EIR

Prepared for
City of Oakland

August 30, 2024

ESA

ESTUARY PARK MASTER PLAN

CEQA Checklist - Addendum #2 to the Oak to Ninth Avenue (Brooklyn Basin) Project EIR

Prepared for
City of Oakland

August 30, 2024

180 Grand Avenue
Suite 1050
Oakland, CA 94612
510.839.5066
esassoc.com

ESA

Atlanta	Palm Beach County	San Diego
Bend	Pasadena	San Francisco
Irvine	Pensacola	San Jose
Los Angeles	Petaluma	Sarasota
Mobile	Portland	Seattle
Oakland	Rancho Cucamonga	Tampa
Orlando	Sacramento	Thousand Oaks

D2020000161

OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations. This document was produced using recycled paper.

TABLE OF CONTENTS

Estuary Park Master Plan CEQA Checklist

Tables

1.0 Introduction

1.1 Master Plan and Estuary Park

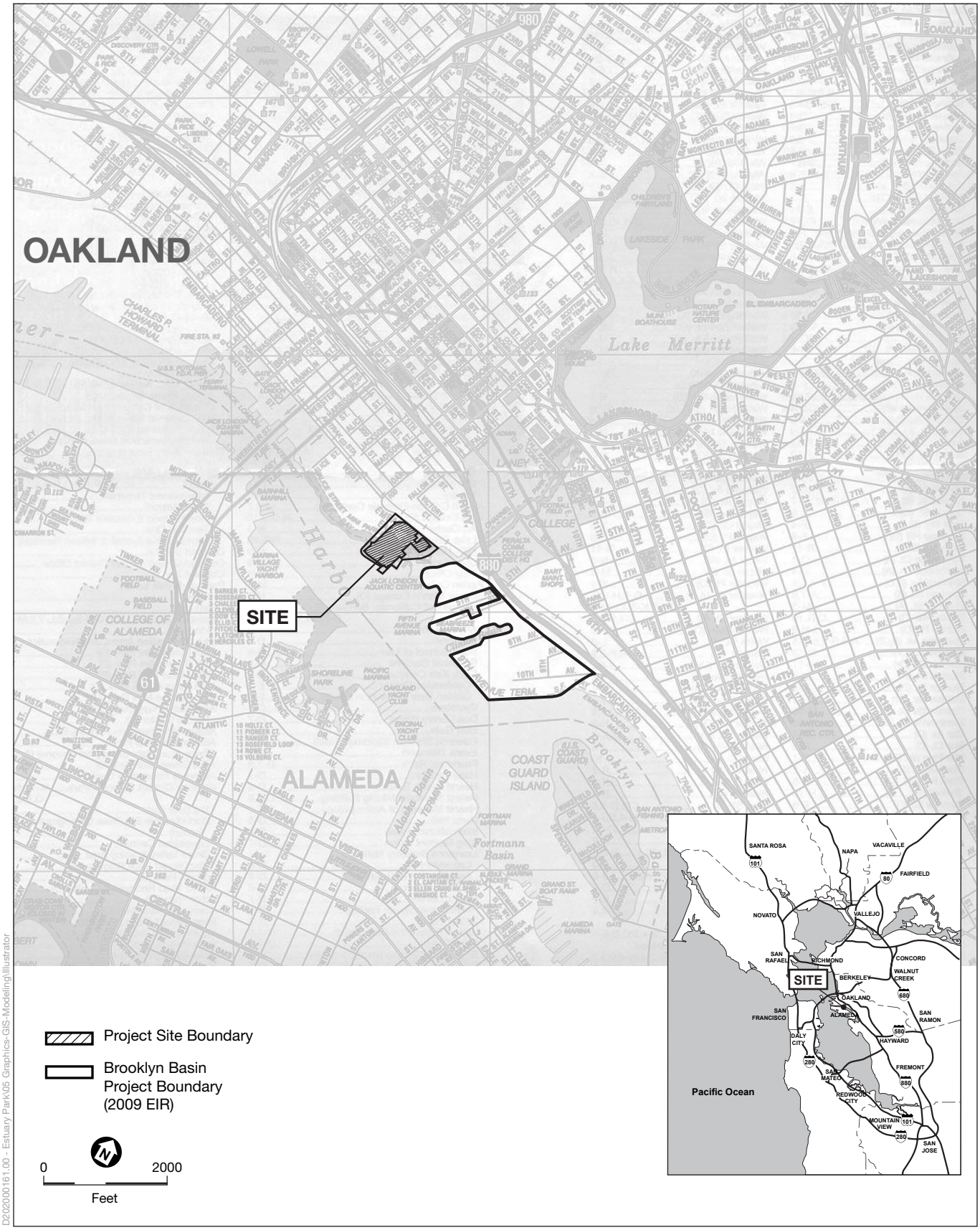
On May 12, 2023, the City of Oakland published the *Estuary Park Renovation + Expansion Project Conceptual Plan – Draft Master Plan* ("Master Plan") that provides a vision to create a major open space of citywide and regional significance at an expanded Estuary Park. The draft Master Plan forwards the City of Oakland's planning vision for Estuary Park in its 1999 *Estuary Policy Plan*, the *Open Space, Conservation and Recreation* (OSCAR) *Element* of the City's General Plan, the City's 2007 Measure DD Implementation Project (Oakland Waterfront Trail and Access Improvements), and various other local and regional plans. The draft Master Plan specifically defines a proposed "Project Conceptual Plan" (Project) which is largely the basis of this environmental review.

Estuary Park is currently approximately 7 acres of public land, including the Jack London Aquatic Center (JLAC) area, located on the north shore of the Oakland Inner Harbor (Estuary) and the west shore of Lake Merritt Channel. **Figure 1, Location Map**, shows the Estuary Park's geographic context, approximately 0.5 miles south of the Lake Merritt BART Station, 0.75 miles south of Lake Merritt, and nearly 1.0 mile southeast of the 12th Street/Downtown Oakland BART Station.

1.2 2009 Recertified EIR and Approved Project

The expansion and certain improvements to Estuary Park were previously analyzed in the *Oak to Ninth Avenue Project Environmental Impact Report* (EIR), which the City recertified in 2009 ("2009 EIR").[1] The Oak to Ninth Avenue Project (subsequently renamed "Brooklyn Basin Project") ("Approved Project") analyzed in the 2009 EIR involved the redevelopment of approximately 64.2 acres along the north shore of the Estuary. The Approved Project is delineated in **Figure 2a, Estuary / Lake Merritt Context**. The Approved Project involved development of a mixed-use neighborhood of new residential and retail/commercial uses; new and improved parkland, trails, and open space, including renovated marinas; and shoreline improvements. The Approved Project involved demolition of existing structures, site remediation, restoration of parts of the Ninth

[1] 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.



D202000161.00 - Estuary Park\05 Graphics-GIS-Modeling\Illustrator

SOURCE: ESA, 2023

Oakland Estuary Park Renovation + Expansion Project

Figure 1
Location Map

ESA

ESTUARY / LAKE MERRITT CONTEXT

Figure 2a

ADJACENT LAND USE

Figure 2b

Oakland Estuary Park Renovation + Expansion Project

Figure 2
Site Location and Context

WRT

CITY OF OAKLAND

SOURCE: ESA, 2023; Google Earth, 2019

Oakland Estuary Park Renovation + Expansion Project

Figure 3
Aerial Photo of Project Area

ESA

Avenue Terminal building, in addition to many of the improvements now defined by the proposed Project.

1.3 Proposed Estuary Park Project Conceptual Plan

The proposed Project Conceptual Plan for Estuary Park includes an expanded multi-use lawn, a refurbished trellis area and promenade, upgraded/expanded picnic areas, improved/expanded pavement and walking paths throughout (including the San Francisco Bay Trail and parking lots), repaving of the existing JLAC parking lot, and improved lighting throughout. Proposed resilient shoreline treatments involving a new sand/gravel pocket beach and upland transition zone along the south shoreline of the Park was not illustrated in the 2009 EIR, however that EIR thoroughly described and analyzed a range of shoreline improvements along nearby segments of the Estuary and Lake Merritt Channel as part of the Approved Project. The Project Conceptual Plan also includes new Elements or improvements not previously specified in the 2009 EIR. Those are a new shoreline path, a fenced-in dog park, a restorative native meadow (or organic mulch area with tree cover), natural play elements, a public restroom/showers facility, and a new open-air boat storage facility. No phasing plan is established for implementation of the proposed improvements; however, the proposed Project would likely be implemented in phases as funding for certain types of improvements becomes available.

1.4 Purpose of this Addendum

The City has conducted the environmental analysis in this *Addendum #2 to the 2009 EIR* ("Addendum") document to assist the City to determine if the proposed Project (specifically the new improvements) compared to the Approved Project meets any of the conditions requiring preparation of a subsequent EIR.[2] The City's determination will be based on conditions in Public Resources Code (PRC) Section 21166 and California Environmental Quality Act (CEQA) Guidelines Section 15162 and 15164.

2.0 Background

2.1 CEQA Framework for Addendum

The information provided in this Addendum does not change the environmental analysis contained in the recertified 2009 EIR. The scope and analysis presented in this document were prepared consistent with the requirements of, and in accordance with, PRC Section 21166 and CEQA Guidelines Section 15162 and 15164 of detailed below. The City

[2] The City approved a 2006 Addendum #1 to present additional analysis for an alternative project site plan (enlarging Estuary Park), a proposed reconfiguration of 12th and 14th Streets adjacent to Lake Merritt, and to present responses to additional comments received on the 2005 Draft EIR.

will use this Addendum, together with the 2009 recertified EIR, when considering its action on the proposed Project.

CEQA allows the lead agency or responsible agency to prepare an addendum to a previously certified EIR if only minor technical changes or additions are necessary. An addendum to a previously certified EIR may be prepared if some changes or additions are necessary to the EIR, but none of the conditions described in CEQA Guidelines Section 15162 (listed below, emphasis added) for preparation of a subsequent EIR have occurred (CEQA Guidelines Section 15164):

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration *due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects*;

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

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

  (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

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

  (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

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

The decision-making body for the project shall consider the addendum with the final EIR prior to acting on a project. The proposed findings to these conditions based on the analysis in this document for the proposed Project are discussed in Section 3.0 (*Summary of Findings and Decision to Not Prepare a Subsequent EIR*).

2.2 2009 EIR and the Proposed Project

"2009 EIR" refers to a set of City-prepared and certified CEQA documents. Where it is necessary to identify the component CEQA documents individually, they are as follows:

(1) *2006 Certified EIR* (composed of 2005 Draft EIR and 2006 Final EIR);
(2) *2006 Addendum #1 to the 2006 Certified EIR*; and
(3) *2009 Revised Final EIR* (revisions to the 2006 Final EIR and Addendum #1)

The 2009 EIR analyzed various expansions of Estuary Park and related improvements as part of "Phase "VIII" of the Approved Project (see Appendix A-1).[3] Each is described in the sections below.

2.2.1 2005 Draft EIR

The 2005 Draft EIR analyzed improvements to the existing approximately 7-acre Estuary Park, in addition to the adjacent 4-acre development parcel (referred to as Parcel N), with the Brooklyn Basin Project (see Appendix A-2).[4] The proposed improvements to the Park in 2005 included re-vegetation of the grass playfield; extension of the Bay Trail along the Park's shoreline; restoration and improvement of shoreline structures (which could involve the removal of existing debris, re-grading of banks, improvement of marsh habitats, and varying types of slope protection with rocks [riprap]); enhanced water-oriented activities (including recreational sailing, rowing, canoeing and kayaking); as well as the potential excavation and disposal of contaminated materials and/or the bioremediation of soil and groundwater. The 2005 Draft EIR analysis did not assume changes to the existing picnic table/seating area and pavilion (trellis) in the Park, to waterfront access facilities adjacent to the Park (boating and fishing docks and boat launch), nor to the JLAC.

2.2.2 2006 Final EIR

The 2006 Final EIR considered an approximately 1.6-acre expansion of Estuary Park (to approximately 8.3 acres total), the result of an equivalent size reduction and reconfiguration of the proposed development on adjacent Parcel N (see Appendix A-3).[5]

[3] Appendix A-1 to this document is the 2005 Draft EIR Figure II-8, Proposed Phasing Plan. Note that the land area delineated encompasses the Embarcadero right of way, which is not part of the proposed Project.
[4] Appendix A-2 to this document is the 2005 Draft EIR Figure II-2, Project Parcel N Site Plan, (annotated with estimated acreages)
[5] Appendix A-3 to this document is the 2006 Final EIR Figure II-1, Variant Parcel N Site Plan (annotated with estimated acreages).

2.2.3 2006 Addendum #1 to the 2006 Final EIR

An Addendum #1 to the 2006 Final EIR analyzed the further expansion of Estuary Park by approximately 2.4 acres (to approximately 11.0 acres total), resulting from the elimination of the previously proposed development of adjacent Parcel N (see Appendix A-4). The Addendum #1 considered the addition of surface parking areas and revegetation of the existing grass playfield northward to the Embarcadero.[6] The Addendum #1 was approved with the determination that the potential impacts of the expanded Estuary Park area would result in the same or less severe impacts than those originally identified in the 2005 Draft EIR.

2.2.4 2009 Revised Final EIR

No subsequent changes were made to Estuary Park or the adjacent Parcel N for consideration in the 2009 Revised Final EIR. In 2022, after certification of the 2009 EIR, the area west of Lake Merritt Channel was redesignated to "Phase IA" for remediation activities to be implemented by the Brooklyn Basin developer in areas determined necessary (see Appendix A-5). [7]

2.2.5 Summary

Table 1 in Section 4.0 (*Project Description*) compares the proposed Project with the proposed improvements to Estuary Park considered in the 2009 EIR. Although the proposed Project details improvements that were conceptual or undefined for Estuary Park and adjacent parcel when the 2009 EIR was prepared, potential environmental effects and mitigation measures identified for similar improvements throughout the Approved Project (including other areas of the 64.2-acre Brooklyn Basin Project site and its shoreline) adequately cover any potential effects associated with the proposed Project changes.

2.3 Summary of 2019 EIR Environmental Impacts

This section summarizes the environmental impacts identified in the 2009 EIR. The impacts and topics listed below reflect CEQA considerations that applied when the 2009 EIR was prepared, and some (shown with an asterisk* in the following lists) no longer apply due to changes to CEQA Guidelines, caselaw, the City's CEQA thresholds and methodologies adopted since recertification of the 2009 EIR. Also, some of the impacts listed below pertain to specific components or effects of the Approved Project unrelated to Estuary Park, its surroundings, or its proposed improvements. Applicability of prior

[6] Appendix A-4 to this document is the 2006 Addendum #1 Figure II-1, Illustrative Plan (an enlarged excerpt of Estuary Park, annotated with estimated acreages).

[7] The Approved Project consists of a Planned Unit Development (PUD) subdivided into five phases: Phases I-IV and Phase IVA; Appendix A-5 to this document is the 2022 Revised PUD Phasing Plan (Sheet No. 1.5).

impacts to the proposed Project are discussed throughout the CEQA Checklist in Section 8.0 (*CEQA Checklist and Analysis*) of this document.

2.3.1 2009 EIR Significant Unavoidable Impacts

As part of its 2009 approval of the Approved Project, the City adopted a *Statement of Overriding Considerations* to address each of the following significant unavoidable impacts identified in the 2009 EIR:

B. Transportation, Circulation, and Parking

B.1: LOS at local intersections in 2010 (Phase I).*

B.2: LOS at local intersections in 2025 (Buildout). *

B.3: LOS at local intersections in 2025 (Cumulative).*

B.9: traffic conditions on the regional and local roadways in 2025 on the regional and local roadways (Cumulative).*

C. Air Quality and Meteorological Conditions

C.7: Contribute to regional air pollution (Cumulative).

E. Cultural Resources

E.3: Substantial demolition of an historic resource (Ninth Avenue Terminal).

E.4: Substantially alter an historic resource (wharf structure supporting the Ninth Avenue Terminal and surrounding areas.

E.5: Architectural compatibility with a potential future Oakland City Landmark.

E.8: Cumulative impacts to historic resources (Ninth Avenue Terminal in combination with the previous loss of the other two Oakland Municipal Terminals).

G. Noise

G.1: Construction noise levels could exceed City of Oakland standards and cause disturbances in noise sensitive areas.

G.4: Locate noise-sensitive uses and public parks in a noise environment "normally acceptable" according to the City of Oakland General Plan Noise Element.

2.3.2 2009 EIR Less-than-Significant Impacts with Mitigation Measures

A. Land Use, Plans, and Policies

A.1: Physical division of an existing community.

A.2: Inconsistency with an applicable land use plan.

A.3: Fundamental land use conflicts.

B. Transportation, Circulation, and Parking

B.1: Phase I traffic LOS at local intersections in 2010. *

B.2: Buildout traffic LOS at local intersections in 2025.

B.3: Buildout contribution to cumulatively significant impacts at local intersections in 2025.

B.4: Demand for alternative transportation service.

B.7: Conflicts among different traffic streams.

B.10: Traffic flow and circulation, parking, and pedestrian safety during construction.

C. Air Quality and Meteorological Conditions

C.1: Short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions.

D. Hydrology and Water Quality

D.1: Substantial erosion or siltation, polluted runoff, or otherwise substantially degrade water quality during construction.

D.2: Dredging in Clinton Basin; adverse impacts to aquatic organisms and water quality.

D.5: Chemicals used to establish and maintain landscaping and open lawn areas; water quality impacts to the Oakland Estuary, and eventually San Francisco Bay.

D.6: Deplete groundwater supplies or interfere with groundwater recharge and cause contamination of surface.

E. Cultural Resources

E.1: Substantial adverse changes to the significance of currently unknown cultural resources at the site (archaeological resource and human remains).

E.2: Adversely affects unidentified paleontological resources.

F. Geology, Soils, and Seismicity

F.1: Injure people and cause collapse or structural damage to proposed structures.

F.2: Expose people and property to liquefaction and earthquake-induced settlement.

F.3: Development at the project site, subject to settlement.

F.4: Use of dredged material as fill, subject to settlement and subsidence.

F.5: Erosion and loss of topsoil resulting from loose and exposed surface soil and wave action during construction.

G. Noise

G.2: Traffic and other operational noise.

G.3: Consistent with the City of Oakland General Plan Noise Element.

H. Hazardous Materials

H.1: Expose construction workers, the public, or the environment to adverse conditions related to hazardous materials handling.

H.2: Exposure to hazardous materials handling during construction.

H.3: Release of hazardous materials through improper handling or storage during construction.

I. Biological Resources

I.2: Construction effects to potentially jurisdictional wetlands or waters of the U.S. under the jurisdiction of the Corps, waters of the state under the jurisdiction of the Regional Water Quality Control Board (RWQCB), and wetlands under the jurisdiction of BCDC jurisdiction.

I.3: Substantial adverse effect, either directly or through habitat modifications, on fisheries resources in the Oakland Inner Harbor during construction.

I.4: Substantial adverse effect, either directly or through habitat modifications, on nesting habitat for breeding raptors and passerine birds, including Cooper's hawk.

I.5: Substantial adverse effect, either directly or through habitat modifications, on special-status nesting and roosting bats.

2.3.3 2009 EIR Less-than-Significant Impacts (No Mitigations Required)

A. Land Use, Plans, and Policies

A.4: Fundamental conflict with an applicable habitat or natural community conservation plan.

A.5: Cumulative land use, plans and policies.

B. Transportation, Circulation, and Parking

B.5: Create demand for bicycle parking.

B.6: Increase the potential for pedestrian safety conflicts.

B.8: Contribute to 2010 changes to traffic conditions on the regional and local roadways. *

C. Air Quality and Meteorological Conditions

C.2: Increase in regional ROG, NOx, and PM emissions due to project-related traffic.

C.3: Project traffic would increase localized carbon monoxide concentrations at intersections. *

C.4: Objectionable odors that would affect a substantial number of people.

C.5: Expose existing sensitive receptors to health risks from diesel emissions (construction/operations).

C.6: Hazardous wind conditions.

C.8: Cumulative hazardous wind conditions.

D. Hydrology and Water Quality

D.3: Violate regulatory water quality standards or waste requirements.

D.4: Increased use of the marinas but with post-construction BMPs to not violate water quality standards or waste discharge requirements.

D.7: Flooding due to proximity to a 100-year flood hazard area or expose people/property to other substantial risks related to flooding, seiche, tsunami, or mudflow.

D.8: Net decrease in impervious surfaces; would not increase runoff and result in substantial flooding on or offsite or exceed the capacity of the existing stormwater drainage system. (Also identified as a Beneficial effect.)

D.9: Cumulative hydrology and water quality.

E. Cultural Resources

E.6: Demolish remaining buildings on the project site.

E.7: Diminishing the industrial character of the project site and vicinity and altering the existing setting of the Fifth Avenue Point neighborhood.

F. Geology, Soils, and Seismicity

F.6: Expose people or structures to substantial risk or hazards (expansive soils, landslides, surface fault rupture).

F.7: Substantial risks to life/property from located geologic hazards (well, pit, swamp, mound, tank vault, or unmarked sewer line; above landfills with no approved closure and post-closure plan, or unknown fill soils; or soils supportive of septic tanks or alternative wastewater disposal systems).

F.8: Significant cumulative impacts regarding geology, soils and seismicity.

G. Noise

G.5: Cumulative noise levels from increased traffic.

H. Hazardous Materials

H.4: Handling of general commercial/retail and household hazardous waste in small quantities.

H.5: Emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

H.6: Physically interfere with an adopted emergency response plan or emergency evacuation plan.

H.7: Cumulative hazardous materials impacts.

I. Biological Resources

I.1: Substantial adverse effect, either directly or through habitat modifications, on special-status mammal species, specifically the Pacific harbor seal, during construction.

I.6: Substantial adverse effect, either directly or through habitat modifications, on biological resources from increased lighting and shading.

I.7: Compliance with the City of Oakland's Tree Preservation and Removal Ordinance.

I.8: Wetlands, other waters of the U.S., and special-status species.

J. Population, Housing, and Employment

J.2: Displace existing businesses and jobs, necessitating construction of replacement facilities, or resulting in substantial increases in distances traveled.

J.3: Induce substantial population growth directly by proposing new housing, or indirectly through infrastructure improvements.

J.4: Induce substantial population growth in a manner not contemplated in the General Plan, with infrastructure requirements not previously considered or analyzed.

J.5: Induce substantial population growth because of business and employment growth proposed in the project.

Identified as No Impact:

J.1: Displace substantial numbers of existing housing units or people, necessitating construction of replacement housing.

K. Visual Quality and Shadows

K.1: Visual character and quality of the project area. (Also identified as a Beneficial effect.)*

K.2: Scenic views and vistas. *

K.3: Light and glare on day or nighttime views.

K.4: Shadow on historic resources (retained Ninth Avenue Terminal Bulkhead Building), buildings using passive solar, new landscaping conflicting with the California Public Resource or impairs use of any public or quasi-public park, lawn, garden, or open space.

K.5 Provision of adequate light to appropriate uses.

L. Public Services and Recreation

L.1: New or physically altered governmental facilities maintain acceptable performance objectives for police protection services.

L.2: New or physically altered governmental facilities to maintain acceptable performance objectives for fire protection and emergency medical services and facilities.

L.3: New or physically altered school facilities to maintain acceptable performance objectives at local public schools.

L.4: Accelerated or substantial physical deterioration of existing park facilities; new/expanded recreational facilities. (Also identified as a Beneficial effect.)

L.5: Increase the demand for library services.

L.6: Increase the cumulative demand for public services and parks.

M. Utilities and Service Systems

M.1: Exceed water supplies available to serve the project from existing entitlements and resources.

M.2: Wastewater demand exceeding citywide allocation and capacity to serve Project and other existing commitments.

M.3: New or expanded offsite stormwater drainage facilities.

M.4: Impede the City of Oakland's ability to meet the waste diversion requirements or violate other applicable federal, state, or local statutes and regulations related to solid waste.

M.5: Violate applicable federal, state, or local statutes and regulations relating to energy standards; require new or expanded energy facilities

M.6: Cumulative effects regarding utilities and service systems.

_____

2.4 Activity Since Recertification of 2019 EIR

Since recertification of the 2009 EIR and subsequent project approvals, several phases of the Approved Project and offsite improvements have been initiated or implemented. Also, several development phases located east of Lake Merrit Channel are constructed and operational. West of the channel, all structures and paving on Parcel N adjacent to Estuary Park have been demolished and the parcel is prepared for environmental remediation as Phase 1A of the Brooklyn Basin Project.

In 2022, the City certified a Supplemental EIR ("2022 SEIR") for modifications to the Approved Project: a residential unit increase of 600 units, relocation of one approved tower allowance to Parcel M, and a new publicly accessible dock. The modifications considered in the 2022 SEIR did not have the potential to directly affect Estuary Park, thus this Addendum tiers from the preceding recertified 2009 EIR of which Estuary Park was part.

3.0 Summary of Findings and Decision to Not Prepare a Subsequent EIR

An evaluation of the proposed Project is provided in the CEQA Checklist in Section 8.0 (*CEQA Checklist and Analysis*) of this document. The evaluation supports that the "Project Conceptual Plan" of the *Estuary Park Master Plan* meets the conditions for preparation of an addendum to the recertified 2009 EIR. The potential environmental impacts associated with the proposed Project were adequately analyzed and mitigated by the 2009 EIR, and no subsequent EIR is warranted.

In accordance with PRC Section 21166 and CEQA Guidelines Section 15162, and as set forth in the CEQA Checklist, the proposed Project qualifies for an addendum because the following findings can be made:

- The proposed Project would not result in substantial changes or involve new information not already analyzed in the 2019 EIR.
- The proposed Project would not cause new significant impacts not previously identified in the 2009 EIR or result in a substantial increase in the severity of previously identified significant impacts.
- No new mitigation measures would be necessary to reduce significant impacts.
- No changes have occurred with respect to circumstances surrounding the 2009 EIR that would cause significant environmental impacts to which the proposed Project would contribute considerably, and no new information has been put forward that shows that the proposed Project would cause new or more severe significant environmental impacts.

The potential environmental impacts associated with the proposed Project have been adequately covered by the analysis and mitigation measures in the certified 2019 EIR. The proposed Project is required to comply with applicable 2009 EIR mitigation measures and current City of Oakland *Standard Conditions of Approval* (SCAs), which are identified throughout the analysis and stated in full in Attachment A to this document.

A subsequent EIR is not required in accordance with PRC Section 21166 and CEQA Guidelines Section 15162. No further CEQA analysis is required. The above findings satisfy CEQA compliance for the proposed Project.

4.0 Project Description

4.1 Location/ Ownership and Zoning/General Plan

As shown in Figure 2b, Adjacent Land Uses (in Section 1.0, *Introduction*), the proposed Project site is located at 80 Fallon Street, bound by Embarcadero on the north, the Oakland Inner Harbor (estuary) on the south, a multifamily residential complex (Portobello/ Embarcadero West) on the west, and Lake Merritt Channel on the east. The County Assessor Parcels Numbers (APNs) are 018 043000110 and 018 043000108.

The Project site generally consists of a vacant four-acre parcel owned by Zarsion-OHP 1, LLC (developer of the Brooklyn Basin Project), fronting Embarcadero; the balance is most of the seven-acre L-shaped parcel owned by the City of Oakland and that comprises the existing Estuary Park and the JLAC.[8]

The Project site is in the "Estuary Policy Plan-Parks (EPP-Parks)" General Plan land use designation and is designated with the "Open Space Region-Serving Park (OS-RSP)" Zone.

4.2 Surrounding Conditions

As introduced in Section 1.0 (*Introduction*) and shown in **Figure 3, Aerial Photo of Project Area**, the Project site is bound by the Embarcadero, the Estuary, Lake Merritt Channel, and the Portobello/Embarcadero West residential condominium complex. Pertinent to the changes and potential effects of the proposed Project:

The adjacent residential complex that borders the west edge of the Project site also contains office, restaurant and marina uses. Across Embarcadero and north to Interstate 880 (I-880) are active railroad tracks industrial commercial uses. Alameda's Marina Village District (marinas, open space and mixed commercial uses) is directly south, across the Estuary. Illustrated in Figure 2a, east of the Lake Merritt Channel is the Brooklyn Basin Project – a mixed use development of residential, commercial/retail, shoreline open spaces. Not part of the Brooklyn Basin Project, but established prior to preparation of the 2009 EIR, a linear outparcel along Fifth Avenue (approximately 0.25 miles east of the Project site) is occupied by a work-live artist community and a mix of industrial and commercial uses.

[8] A small portion of the L-shaped parcel that is not part of the Project site is owned by the East Bay Municipal District (EBMUD).

Figure 3, Aerial Photo of Project Area

4.3 Existing Site Conditions

This section summarizes existing characteristics of the proposed Project site – Estuary Park and adjacent properties and waterways -- that are relevant to the proposed changes and potential environmental effects of the proposed Project. As mentioned above, since recertification of the 2009 and approval of the Brooklyn Basin Project PUD, portions of the Approved Project east of Lake Merritt Channel have been implemented and are operational.

4.3.1 Access and Natural Conditions

The Project site is accessed by motorists via a main driveway from Embarcadero. Bicycle and pedestrian facilities exist on Embarcadero and serve site, as does the Bay Trail alignment that, within the Project site, runs south from the JLAC area and along the shoreline perimeter, and then west toward Jack London Square and beyond. A paved emergency vehicle access (EVA) road and fire access road exist along the west border of the site.

The Project site largely consists of compacted soil and ruderal areas with minimal natural vegetation. Landscaped vegetation, planting strips, and a formal tree allèe in the promenade along the southeast area of the site, and remnants of paved parking exist on the western areas of the site.

The Project site exists on fill and presents little variation in elevation within its boundaries. The site slopes approximately four feet north to south, where the elevation drops to sea level at the shoreline. The Project site fronts the Oakland Estuary and the Lake Merritt Channel, both of which are navigable, subject to the ebb and flow of tidal waters connected to the San Francisco Bay and are therefore potential waters of the U.S. and state. The Project site is also mapped within the Federal Emergency Management Agency (FEMA) 100-year floodplain.

4.3.2 Utilities and Subsurface Conditions

The Project site is in an urbanized area and served by public water and sanitary sewer service and infrastructure. There are numerous EBMUD easements across the Project site for water and sewer utilities and site access and egress. Most notable is a thirty-foot wide/long sewer easement and line runs north to south through the site.

Existing stormwater drainage across the Project site is by sheet flow and drains to the estuary and Lake Merritt channel. Several storm line pipes exist on the site, including a trunk line that collects and directs water from Embarcadero to the estuary at the southwest corner of the site. There are also existing drains to outfall structures to the channel.

The Project site is not on the list of Hazardous Waste and Substances sites in the Department of Toxic Substances Control (DTSC) EnviroStor database, the Cortese List (CalEPA, 2019). However, documented soil and groundwater contaminants exist, primarily related to former lumberyard uses, chemical composition of previously imported fill material, and/or localized spills and leaks during other former industrial uses on the site.

DTSC approved a phased remediation process for cleanup of areas of the site to appropriate levels was approved separate from the proposed Project and is underway as part of the Brooklyn Basin Project Phase 1A. Mitigating fill placement on the four-acre expansion parcel in the northwest corner of the Project site (Parcel N) is currently underway, also a separate action from the proposed Project.

4.4 Historic Preservation Architecture

As determined in work conducted by Archaeological/Historical Consultants (AHC) in 2018, Estuary Park was not considered a historic resource under CEQA. The 2018 report noted that the Park was completed in 1972 and that the design was less than 50 years old at the time of evaluation (it was 46 years old), was a minor work within the body of Lawrence Halprin & Associates (LH&A) and qualified as a C-rated resource by the standards of the Oakland Cultural Heritage Survey (OCHS).

A peer review and limited additional research conducted for the analysis in this Addendum, as the Park is now more than 50 years old and different criteria apply. Section E. *Cultural Resources* of the *CEQA Checklist and Analysis* (Section 8.0 of this document), City consultant ESA recommends Estuary Park eligible for listing in the California Register.

4.5 Project Conceptual Plan and Elements

This section describes the proposed *Estuary Park Renovation + Expansion Project Conceptual Plan*, specifically the "Project Conceptual Plan" and its "Elements," which are the basis of this environmental review and shown in **Figure 4,Project Conceptual Plan**.[9, 10] This Addendum focuses largely on "new improvements" not previously specified in the 2009 EIR.

[9] The "Project Concept Plan" is from page 30 of the *Master Plan Draft* document, dated 5/12/2023.

[10] Section 3 of the Master Plan document also illustrates a "Conceptual Master Plan" that, while partially overlapping most of the "Project Conceptual Plan" area, includes areas and improvements that are not part of the Project that is the basis of this environmental review. The larger Conceptual Master Plan includes improvement that will require additional design and environmental review through future implementation projects. The area of future study largely includes the JLAC building and adjacent water recreation projects.

ESTUARY PARK RENOVATION AND EXPANSION PROJECT CONCEPTUAL PLAN

(Basis for Environmental Review)

PROJECT ELEMENTS

1. RESILIENT SHORELINE TREATMENT (SOUTH SHORELINE ONLY)
2. PARKING LOT
3. PAVEMENT / WALKING PATHS
4. BAY TRAIL
5. RESTORATIVE NATIVE MEADOW HYDROSEED PLANTING (OR ORGANIC MULCH/TREE AREA)
6. PICNIC AREAS
7. PUBLIC RESTROOM/BOATING PROGRAM SHOWERS
8. SHORELINE PATH AND PASSIVE RECREATION NODES NATURAL PLAY ELEMENTS
9. DOG PARK
10. EAST PROMENADE
11. GATHERING PLAZA
12. REFURBISHED TRELLIS AREA
13. MULTI-USE LAWN
14. BOAT STORAGE FACILITY
15. RESURFACE AND RESTRIPE JLAC PARKING
16. SITE LIGHTING

Oakland Estuary Park Renovation + Expansion Project

Figure 4
Project Conceptual Plan

4.5.1 Project Conceptual Plan

The Project Conceptual Plan illustrates how the proposed Project maintains the overall pattern of uses in the existing Park area, which is framed by the south shoreline, central open lawn area, the promenade, and the LH&A-designed trellis area along the Bay Trail fronting Lake Merritt Channel.

All areas within the "Project Limit" delineated in Figure 4 will be improved. The overall improvements include an expanded multi-use lawn, a refurbished trellis area and promenade, upgraded/expanded picnic and play areas (including a new dog park), improved/expanded pavement and walking paths (including the Bay Trail and parking lots), new public restrooms/showers and a boat storage facility, and improvements to the south shoreline of the Estuary Park. Each of the specific Project Elements is detailed below.

4.5.2 Project Elements

Starting on the following page, **Table 1, Project Conceptual Plan – Project Elements**, summarizes proposed Park Elements that would result in changes to the physical environment. Most of the Elements are improvements previously considered in the 2009 EIR. This Addendum specifically focuses on "new improvements" not previously specified in the 2009 EIR. Each Element is identified with the same numeral designator shown in Figure 4.

Full descriptions of each of the proposed Elements follows Table 1. Each Element is described to a level of detail suitable to assess the Project's environmental impacts relative to the impacts disclosed in the 2009 EIR.[11]

[11] For purposes of determining whether a subsequent EIR is required, pursuant to PRC Section 21166 and CEQA Guidelines Section 15162 and 15164.

TABLE 1
PROJECT CONCEPTUAL PLAN - PROJECT ELEMENTS

Concept Plan Designator	Conceptual Plan Park Element	Element Considered in 2009 EIR?	Existing Condition	Proposed Project / Key Characteristics
#1	**Resilient Shoreline Improvements**	Yes[a]	• Ad-hoc revetments of non-engineered riprap along the Park shoreline	• New Sand/Gravel Pocket Beach and upland transitional zone specifically along the Park's south shoreline
#2	**Replaced / Expanded Parking Lot**	Yes	• Deteriorated paved parking lot	• New Park parking lot • No net change of parking spaces • New street-frontage landscaping • No substantial change to vehicular circulation to/from the Park
#3	**Improved / Expanded Pavement and Walking Paths**	Yes	• Deteriorated pavement and ruderal areas • 20 Park parking spaces (west of existing lawn)	• Extend existing EVA along shoreline to new Gathering Plaza • New multi-mode Park entrance (northwest corner) • New landscaping along Embarcadero and EVA
#4	**Improved Bay Trail**	Yes	• Decomposed granite	• 20-foot-wide buffered, asphalt trail on existing alignment: along site shoreline, from new Gathering Plaza to west connection • Elevate for sea-level-rise
#5	**New Restorative Native Meadow Hydroseed Planting (or Organic Mulch Area with Tree Cover)**	Yes	• Deteriorated pavement, dirt (demolished warehouse building site), and ruderal areas	• Install new linear planted area of trees with organic mulch or, alternatively, native plants
#6	**New Picnic Areas**	No	• Wood tables under existing LH&A-designed trellis	• Create new picnic areas at northwest and southwest Park entrances • Retain two LH&A-designed picnic tables • Add new picnic tables that are compatible in design to the retained LH&A tables
#7	**New Public Restroom/ Boating Program Showers**	No	• Dirt site of demolished warehouse building	• New approx. 1,850-sq.ft. building
#8	**New Shoreline Path And Passive Recreation Nodes**	Yes	• None	• New 6-foot-wide trail • Planted Transition Zone between Bay Trail and new Sand/Gravel Pocket Beach
#9	**New Natural Play Elements**	Yes	• None	• New playground near LH&A-designed trellis
#10	**New Dog Park**	No	• Dogs permitted throughout the existing Park	• New fenced area
#11	**Raise East Promenade**	Yes	• See #4 "Improved Bay Trail"	• Regrade, landscape, add seating • Retain tree allèe and spacing, replacing trees as needed

[a] The 2009 EIR analyzed several shoreline improvements along the Approved Project site.

TABLE 1
PROJECT CONCEPTUAL PLAN - PROJECT ELEMENTS

Concept Plan Designator	Conceptual Plan Park Element	Element Considered in 2009 EIR?	Existing Condition	Proposed Project / Key Characteristics
(continued) #12	**New Gathering Plaza**	Yes	• Raised circular platform	• Install smaller raised landscaped platforms • Install two at-grade planting areas and seating
#13	**Refurbished Trellis Area**	No	• Weathered, unstable wood LH&A-designed structure	• Structurally reinforce, and (white) paint existing
#14	**Improved / Expanded Multi-Use Lawn**	Yes	• Compacted soil and ruderal area	• Enlarged natural turfgrass area
#15	**New Open-air Boat Storage Facility**	No	• Dirt site of demolished warehouse building	• Paved, open-air area with perimeter fence
#16	**Resurface And Restripe Jack London Aquatic Center Parking**	Yes	• Paved parking lot	• Repave and restripe to improved circulation
Relevant Project Elements <u>Not</u> Shown on Conceptual Plan				
None	**Site Lighting**	Yes	• Minimal existing lighting in disrepair and not functioning	• New and replacement lighting throughout
None	**Improved Bicycle Access and Parking**	Yes	• Undefined, decomposed granite areas	• Same as #4 “Improved Bay Trail”
None	**Improved EVA and Fire Access**	Yes	• Decomposed granite path along west edge of site	• Repave and extend along shoreline to the new Gathering Plaza
None	**Sea-Level Rise Mitigation**	Yes	• BFE 4.3 ft. COO (10 ft. NAVD)	• Elevate certain areas to mitigate flooding to 2070
None	**Landscaping**	Yes	• Landscaped vegetation, planting strips, formal tree allèe	• New planting strips/vegetation along Embarcadero and west property edge; bioretention plants (#1) • Formal and informal tree configurations throughout (new and relocated trees) • Replace allèe trees with like kind as needed (#11)
Construction and Sitewide Elements				
None	**Stormwater / Site Coverage**	Yes	• Conceptual expansion of planted/pervious areas	• Reconfiguration of planted/pervious areas • No substantial change in planted/pervious site coverage
None	**Utilities**	Yes	• Existing utility infrastructure, on- and off-site	• New and/or extended utility connections for new Public Restroom/ Boating Program Showers building (#7) • As needed utility connections for new site amenities (lighting, electrical outlets, drinking fountains) • Storm drainage upgrades and green infrastructure for

TABLE 1
PROJECT CONCEPTUAL PLAN - PROJECT ELEMENTS

Concept Plan Designator	Conceptual Plan Park Element	Element Considered in 2009 EIR?	Existing Condition	Proposed Project / Key Characteristics
				stormwater treatment throughout site
None	**Remediation**	Yes	• Confirmed soil and groundwater contamination	• As needed characterization and off-haul of excavated material from south shoreline area (#1) • Others to implement approved Implementation Plan (IP) and rough grade for Park
None	**Construction / Earth Movement**	Yes	NA	• Fine grading at Upland Park areas • Excavation and fill for shoreline improvements (#1)

4.5.2.1 (#1) Resilient Shoreline Improvements (South Shoreline Only)

The south shoreline will be reconstructed as a sand/gravel pocket beach and upland transitional zone, providing a resilient shoreline and new recreational areas (#8). Existing grouted and non-engineered riprap and rubble around the south shoreline of the Park will be replaced with riprap shore retention and engineered rock revetments.

4.5.2.2 (#2) Parking Lot

A new parking lot will be constructed to replace the existing parking area west of the existing lawn. The new lot will provide generally the same number of parking spaces displaced by the proposed Project - approximately 20 existing spaces west of the existing lawn. In addition to automobile parking, spaces will be provided for recreational boat trailers and trailers for rowing shells.

4.5.2.3 (#3) Pavement / Walking Paths

New, paved walking paths will parallel the improved emergency vehicle access (EVA) and fire access road (see 4.5.2.19), as well as provide walkways through the proposed new meadow (#5) and expanded lawn (#14).

4.5.2.4 (#4) Bay Trail

The Bay Trail will be improved in accordance with Bay Trail guidelines, providing a 20-foot-wide multi-use trail. The Bay Trail will be elevated to the 6-foot City of Oakland elevation to mitigate for estimated sea-level rise to the year 2070 (see 4.5.2.20), except where the trail needs to conform with existing elevations at the JLAC building and western Park boundary.

4.5.2.5 (#5) Restorative Native Meadow Hydroseed Planting (or Organic Mulch Area with Tree Cover)

Along the western side of the Park, the proposed Project will introduce a linear area of native and drought-adapted trees with organic mulch groundcover. As a future phase,

the understory may be planted with a hydroseed mix of native meadow species. This will provide habitat for pollinators, insects, birds and other animals.

4.5.2.6 (#6) Picnic Areas

Picnic areas will be distributed throughout the park, with a large picnic plaza located near the improved parking lot (#2), to serve large parties and provide access to vehicles. Other picnic areas will be located at the southwestern shoreline node (#8) and at the existing LH&A-designed trellis structure (#13). Amenities will include grills, trash and recycling receptacles, drinking fountains/potable water supply, accessible tables, and seating. Two LH&A-designed picnic tables will be retained, and new picnic tables will be compatible in design with the retained original examples.

4.5.2.7 (#7) Public Restroom/Boating Program Showers

In addition to the existing public restrooms currently on the Park site, four additional public toilets will be provided, in a building shared with showers, changing rooms and toilets for use by the boating programs associated with the JLAC.

4.5.2.8 (#8) Shoreline Path And Passive Recreation Nodes

A new 6-foot-wide trail in a planted transitional zone situated between the improved Bay Trail (#4) and new sand/gravel pocket beach (#1). This secondary trail will include nodes for passive recreation.

4.5.2.9 (#9) Natural Play Elements

A playground will be located to the west of the existing LH&A-designed trellis structure (#13). Also, natural interactive features such as driftwood logs and boulders will be dispersed along the south shoreline (#8). All the play equipment and natural interactive features will be constructed primarily of natural materials.

4.5.2.10 (#10) Dog Park

The fenced dog parks will be sized to accommodate both large and small dogs. The surface will be wood-chip mulch. Amenities will include benches, shade trees, and dog-waste-bag dispensers.

4.5.2.11 (#11) East Promenade

The area between the LH&A-designed trellis and the existing stepped bulkhead to the east shoreline will be regraded to raise the elevation of the Bay Trail, creating a planted sloped area. The promenade will include seating areas for passive recreation and viewing the Lake Merritt Channel.

4.5.2.12 (#12) Gathering Plaza

South of the existing JLAC building, a large plaza will serve daily Park uses, such as tai chi, roller-skating and skateboarding, and will function as an event plaza during festivals and other events. Smaller raised landscaped platforms and two at-grade planting areas and seating will be introduced in the plaza. Food trucks will be able to access this plaza during events.

4.5.2.13 (#13) Refurbished Trellis Area

The existing LH&A-designed trellis will be rehabilitated and structurally strengthened to address deterioration of the wooden members of the structure. The area below the trellis will remain as a picnic and seating area with a combination of retained original LH&A-designed and upgraded furnishings.

4.5.2.14 (#14) Multi-Use Lawn

The multi-purpose lawn will be natural turfgrass and sized to accommodate informal team sports, such as soccer (with an area large enough for a U-10 [youth]-sized field) and ultimate frisbee. The lawn can also accommodate occasional events, off-leash dogs, and picnicking.

4.5.2.15 (#15) Boat Storage Facility

A paved, fenced and secured boat-storage yard serving the JLAC rowing programs and Oakland Parks and Recreation and Youth Development Department (OPRYD) boating programs will be located adjacent to the proposed restroom and shower building (#7).

4.5.2.16 (#16) Resurface And Restripe JLAC Parking

The existing parking lot north of JLAC will be resurfaced and restriped, generally maintaining the number and configuration of spaces that exist. No other improvements are proposed to the JLAC area of the Park.

4.5.2.17 Site Lighting

Site lighting will be provided throughout the Park, including overhead lights at the parking lot, along the pathways, at the gathering areas, and at the restroom/shower building and boat-storage yard area.

4.5.2.18 Bicycle Access and Parking

Bicycle access will be provided from Embarcadero and via the Bay Trail. Bicycle racks will be distributed throughout the park to accommodate cyclists using different areas of the Park.

4.5.2.19 Emergency Vehicle Access

Repaving and extending the existing EVA and fire access route to provide access to the Portobello/Embarcadero West condominiums west of the site, the JLAC building, and the perimeter of the park. Removable bollards will prevent private vehicles from entering the park beyond the parking lot. (The Project does not propose EVA/fire access improvements in areas outside the proposed Project site)

4.5.2.20 Sea-Level-Rise Mitigation

Where Park Elements are proposed, the Park will be elevated to prevent estimated flooding for a "low risk-aversion" project to approximately the year 2070, which is estimated to be at the six-foot City of Oakland (COO) elevation (11.7 feet NAVD), accounting for a one-year still water level, one-foot allowance for wave runup, one foot of freeboard, and two feet of sea-level rise.

Portions of the Park will be below the six-foot COO elevation because of the need to conform with existing conditions around and within the site, such as adjacent roadways, the Bay Trail, and (not part of the proposed Project Elements addressed in this CEQA document), the JLAC building and the existing EBMUD pump station fronting Embarcadero.

4.5.2.21 Landscaping

New landscaping will be provided along the Embarcadero frontage and along the EVA / Fire Access Route along the west edge of the Park (#3). New, existing and relocated trees will be located throughout the Park in formal and informal configurations. Trees that make up the existing allèe in the promenade will be replaced with like kind as needed (#11). Sitewide, the Project is estimated to remove approximately 36 trees and plant approximately 107 trees (as cited in Appendix.

4.5.2.22 Stormwater and Utilities

The proposed Project does not involve substantial changes to existing utility infrastructure or existing topography across the Project site. Extensions of existing utility infrastructure and services will be provided to services throughout the Project site, including water, sewer, electrical service to the new Public Restroom/ Boating Program Showers building (#7), in addition to water and electrical connections, as needed, for new site amenities (lighting, electrical outlets, drinking fountains). Storm drainage upgrades, including green infrastructure for stormwater treatment, are proposed throughout the Park.

4.6 Site Remediation

Documented soil and groundwater contaminants exist in areas of the Project site, primarily related to former industrial uses onsite. Phased remediation will occur in accordance with a DTSC-approved process was approved separate from the proposed Project and is underway as part of the Brooklyn Basin Project (Phase 1A).

Separate from, but supportive of, the proposed Project, the developer of the Brooklyn Basin Project is conducting environmental remediation of parts of the Project site, under regulatory oversight of the California Environmental Protection Agency and lead oversight by DTSC. Remediation actions will occur pursuant to an "Implementation Plan for the Remediation of Estuary Park" ("IP") (updated 2023). A primary goal of the updated IP is coordination of its excavation, fill placement, and rough grading to align with the design contours and finished elevations for the Estuary Park improvements.

The updated IP proposes excavation at 3 locations and will involve excavation to depths between 4 and 10 feet below ground surface (bgs). Additional excavation may be warranted at the location of a former UST along the northwestern part of the site. Approximately 2 feet of clean fill will be placed over the majority of the Project site, using clean soil sourced from various areas of the Project site and underlain by clean soil from

other areas throughout the site, helping to raise grades where needed the for final Park design elevations where necessary and to minimize off-haul and disposal of site soil.

Based on prior investigations and findings disclosed in the 2009 EIR, areas near the south shoreline also have the potential to be contaminated Because existing materials would be altered to implement the Resilient Shoreline improvements (#1), the 2 feet of fill described above would not be placed before those alterations. Instead, excavation in the south shoreline area will involve separate, controlled excavation of material from specific areas to be stockpiled onsite for testing to determine its appropriate reuse onsite or exported and disposed of at an acceptable offsite facility.

4.7 Construction Activities

Implementation of the proposed Project may involve several construction phases. As shown in Table 2, the potential construction phases for the proposed Project are Park Development, Building Construction (#7 Restroom/Showers), Beach/Transition Area, and Paving. The construction sequencing that would occur within one or more phases are also summarized in Table 2 and encompass the removal of existing materials, the import of materials for various uses (e.g., soil, aggregate bases), the potential export of excavated materials, fine grading, and building construction and finishes.

The 2009 EIR assumed development of the Approved Project would involve each of the above construction activities throughout the Brooklyn Basin site, its shoreline and adjacent waters, in addition to the possible use of barges or tugs to haul materials during construction. Although not proposed by the proposed Project, the 2009 EIR analyzed more expansive shoreline improvements, including the creation or improvement of marshland and vegetated shoreline embankments. For purposes of the analysis in this document, conservative (maximum) estimates of earth work were estimated for the proposed Project, based on preliminary inputs from the City's Park and Shoreline Design Team, and configuration of uses in the Project Conceptual Plan (Figure 4).

As discussed in Section 5.0 (*Implementation and Phasing*) below, the City has not established a schedule or sequence for implementation of the proposed Project Elements. For the environmental analysis in this document, construction of the proposed Project could involve approximately 18 months, which conservatively assumes full development of the Project in a single period.

Table 2
Conceptual Construction Phases and Activities

Construction Phase (Concept Plan Designator #[a])	Estimated Park Area	Activities	Estimated Construction Start/End Dates [b]
			January 2024 [c]
Park Development (#3-6, 9-11, 13-14)	Approx. 243,500 sq.ft.	• Demolish/remove existing paving and hardscape features. • Excavate "native" material from tree wells and to create proposed play areas and footprints for other improvements. • Amend "native soil" in planting areas; import aggregate base for paved areas and foundations. • Set final grades for all paved and planted and irrigation areas.	
Building Construction (#7)	Approx. 1,850 sq.ft.	• Excavate "native" material to create building footing area. • Construct restroom/shower building. • New building finishing.	
Shoreline/Beach/ Transition Area (#1)	Approx. 55,625 sq.ft.	• Excavate "native" material from beach/transitional zone and stockpile onsite. • Import, stockpile, then relocate material for beach/transitional zone areas (sand/gravel) and backfill of revetments (rock). • Import planting and bioretention soils. • Set final grades for new paved and planted areas. [d]	18 Months
Paving / Amenities	Approx. 501,500 sq.ft.	• Import aggregate base for paved areas and foundations. • Pave relocated parking lot (#2). • Repave existing parking lot (#14). • Pave boat storage area (#15). • Fine grading around new paved areas. • Installation of Park furnishings and amenities.	
			June 2025

[a] As designated in Figure 1 and Table 1.

[b] Not necessarily consecutive or sequential; phases may overlap and occur in any order.

[c] The analysis in this Checklist assumes January 2024 as the earliest possible construction start-date for the Project, so as to not underestimate the potential environmental effect. Construction could commence in Spring/Summary 2025.

[d] Including Sea-Level Rise Mitigation, maintaining elevated grades to prevent estimated flooding for a "low risk-aversion" project (see 4.5.2.20).

5.0 Implementation and Phasing

5.1 Project Schedule

The Project does not include a schedule or sequence for implementation. For purposes of the environmental analysis in this document, construction of the Project is estimated to

commence as early as January 2024 and be operational for public use within 18 months.[12] The construction phases and subphases could overlap, and the sequence in which individual Project Elements would be implemented will depend on community priorities, technical construction feasibility, and availability of funding.

5.2 Future Actions Not Addressed in this Document

With the Sea-Level Rise Mitigation Project Element (see 4.5.2.20), portions of the Park will be below the 6-foot COO elevation because of the need for improvements to conform with existing conditions around and within the Park. Because the JLAC building and the existing EBMUD pump station are not part of the proposed Project, Sea-level-rise mitigation for these areas would be addressed by one or more future project(s).

6.0 Discretionary Project Approvals Requested

6.1 Actions by the City of Oakland

- Approval of CEQA Clearance pursuant to this Addendum; and
- Adoption of the proposed Estuary Park Master Plan.

6.2 Actions by Other Agencies

- San Francisco Bay Conservation and Development Commission (BCDC);
- Regional Water Quality Control Board, San Francisco Bay Region (SFRWQCB);
- U.S. Army Corps of Engineers (USACE) Clean Water Act Section 404 Permit *(assumes coverage under a Nationwide Permit)*; and
- California Department of Toxic Substances Control (DTSC) *(as needed, pending outcome of characterized south shoreline excavation stockpiles).*

[12] The environmental analysis in this Checklist conservatively assumes the earliest possible project construction start-date, January 2024, so as to not underestimate the potential environmental effects. A later construction start-date means the default feet mix for construction equipment and vehicles would be cleaner, as emission factors in future years are expected to decrease in response to increasingly stringent regulations and standards, resulting in a lower impact. Project construction could potentially start in Spring/Summer 2025.

7.0 Introduction to CEQA Checklist

7.1 Scope of the Analysis

Consistent with CEQA Guidelines Section 15162, this addendum evaluates only substantial changes to the Approved Project (i.e., the proposed Project), circumstances under which the proposed Project is undertaken, or new information of substantial importance that give rise to new significant environmental impacts or substantially more severe environmental impacts than were analyzed in the 2009 EIR for the Approved Project.

The CEQA Checklist in this document addresses each environmental topic in the City of Oakland's *CEQA Thresholds of Significance Guidelines* (Thresholds) (2020, as amended through September 2023), which includes all topics in Appendix G to the CEQA Guidelines. The City's Thresholds include certain environmental topics and thresholds or significance criteria that were not required when the 2009 EIR was prepared. Those topics are addressed in this Checklist, even if they do not pertain to potential substantial changes in circumstances or new information under CEQA Guidelines Section 15162. New thresholds or significance criteria are not necessarily significant new information (*Concerned Dublin Citizens v. City of Dublin* (2013) 214 Cal.App.4th 1301, 1320). Conversely, certain CEQA topics addressed in the 2009 EIR are no longer part of Appendix G to the CEQA Guidelines or the City of Oakland's Thresholds as currently amended, and those topics are not addressed in this Checklist but noted throughout (also see Section 2.3).

7.2 Organization / Format of the CEQA Checklist

For clarity, the environmental topics are addressed in the order that they were presented in the 2009 EIR. Also, the same alpha-numeric designators for environmental impact statements and mitigation measures in the 2009 EIR are maintained.

Under each environmental topic in the Checklist, the analysis first summarizes the impact findings of the 2009 EIR. All analysis and supporting documentation of the 2009 EIR is incorporated by reference into this document. The 2009 EIR impacts summary is followed by a comparative analysis of the proposed Project – specifically the new improvements not previously considered – to the impact findings in the 2009 EIR. The analysis only addresses information that is directly pertinent to the reviewer's understanding of whether the Project meets the CEQA conditions for an addendum (CEQA Guidelines Section 15164).

For each threshold or significance criterion under each topic, the Checklist indicates with an "X" whether the Project would result in:

1. Equal or Less Severity of Impact Previously Identified in the 2009 EIR;

2. Substantial Increase in Severity of Previously Identified Significant Impact in the 2009 EIR; or
3. New Significant Impacts.

An "X" under the second or third finding would indicate conditions under CEQA Guidelines Section 15162 triggering preparation of a supplemental EIR exists.

7.3 City of Oakland Standard Conditions of Approval

The Oakland City Council initially and formally adopted its Standard Conditions of in November 2008 (Ordinance No. 12899 C.M.S.), pursuant to Public Resources Code (PRC) section 21083.3 and CEQA Guidelines Section 15183 (and now section 15183.3), and the City's most recently updated the SCAs on July 1, 2024. As applicable, the SCAs are adopted as requirements of an individual project when the project is approved by the City and are designed to, and will, substantially mitigate environmental effects. The SCAs incorporate development policies and standards from various adopted plans, policies, and ordinances (such as the Oakland Planning and Municipal Codes, Oakland Creek Protection, Stormwater Management and Discharge Control Ordinance, Oakland Tree Protection Ordinance, Oakland Grading Regulations, National Pollutant Discharge Elimination System (NPDES) requirements, Housing Element and other General Plan Element-related mitigation measures, California Building Code, Uniform Fire Code, Energy and Climate Action Plan, Complete Streets Policy, and Green Building Ordinance, among others), which have been found to substantially mitigate environmental effects.

In this CEQA Checklist, the SCAs that apply to the proposed Project are considered requirements of the Project and not mitigation. the effectiveness of an amended SCA to substantially mitigate environmental effects is not compromised. SCAs that would apply to the proposed Project and analyzed in this CEQA Checklist are listed in Attachment A to this document and reflect the City's most current SCAs (July 24, 2024). Some SCAs require technical studies to be prepared. Technical studies prepared during the course of this CEQA review are incorporated into the environmental analysis and/or appendices to this document.

8.0 CEQA Checklist and Analysis

The CEQA Checklist containing the environmental analysis of the proposed Project starts on the following page.

A. Land Use and Planning

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous EIR	Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR	New Significant Impact
a. Physically divide an established community;	☒	☐	☐
b. Result in a fundamental conflict between adjacent or nearby land uses; or	☒	☐	☐
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.	☒	☐	☐
d. Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan.	☒	☐	☐

NOTE: Changes shown to 2009 EIR thresholds due to subsequent changes in State CEQA Guidelines and/or Oakland CEQA Thresholds.

8.1.1 2009 EIR Findings

The 2009 EIR identified less than significant impacts (after incorporation of mitigation measures) regarding the physical division of an existing community, specifically the existing Fifth Avenue Point community that abuts parts of the Approved Project site (Impact A.1). A less than significant (after incorporation of mitigation measures) regarding inconsistency with an applicable land use plan (Estuary Policy Plan) (Impact A.2) was identified due to the Approved Project's required changes to the land use classification and zoning districts that the 1999 Estuary Policy Plan established for the Project site. Also, less than significant (after incorporation of mitigation measures) impacts were identified for the potential for fundamental land use conflicts (Impact A.3) resulting from new land uses that would increase noise, light and glare, and traffic, in addition to new buildings' effects on public views.

Less than significant impacts (no mitigation measure required) were identified regarding a fundamental conflict with an applicable habitat or natural community conservation plan (Impact A.4) and the potential for cumulative land use impacts (Impact A.5).

8.1.2 Project Analysis

8.1.2.1 Division of Established Community, Conflict with Land Uses, Land Use Plans, or Conservation Plan (Criteria A.a through A.d)

As described in Section 4.0 (*Project Description*) of this document (and summarized in Table 1), the proposed Project aligns with the land use, plans, and policies analysis in the

2009 EIR in that the proposed Project involves the expansion and improvements to Estuary Park, in accordance with City's planning vision the Park specifically set forth in the Oakland's 1999 *Estuary Policy Plan*, the *Open Space, Conservation and Recreation* (OSCAR) *Element* of the City's General Plan, the City's 2007 Measure DD Implementation Project (Oakland Waterfront Trail and Access Improvements), as well as other various local and regional plans.

The proposed Project site, defined by the "Project Limit" delineated in Figure 3 and Figure 4, is part of the whole Estuary Park considered in the 2009 EIR, even though it excludes the portion of the Park containing the JLAC facility and adjacent shoreline and water access facilities for an undefined, future phase of Master Plan implementation. The proposed Project does not propose an overall land use change to the Park, nor does it introduce new uses or buildings that would represent a substantial change in environment or substantially conflict with adjacent uses. The proposed Project would consist of approximately 55,625 square feet of shoreline (#1), an approximately 1,850 square foot restroom/shower facility, approximately 243,000 square feet of park space, approximately 47,500 square feet of concrete paved area, and approximately 454,000 square feet of asphalt paved area.

As summarized in Table 1, the new improvements to Estuary Park not considered in the 2009 EIR analysis are new picnic areas (#6), new approximately 1,850 square-foot public restroom/boating program showers building (#7), a new dog park (#10), structural reinforcement of the existing trellis (#13), a new open-air boat storage (#15), and (although shoreline improvements were previously analyzed for other parts of the Approved Project) the addition of shoreline improvements on the south shore of Estuary Park specifically (#1). None of these new improvements would result in new or substantially more severe impacts to land use, plans, and policies. Also, the proposed Project does not require or propose changes to the existing EPP-Parks" General Plan land use designation or "OS-RSP" Zone that apply to the Project site.

In summary, the proposed Project would have less than significant impacts to land use, plans, and policies; none of the previously identified impacts or mitigation measures would apply to the proposed Project. Specifically, the previously identified impacts do not address Estuary Park or its proposed improvements: the Park is not proximate to Fifth Avenue Point (which in the 2009 EIR EIR resulted in a significant but mitigable impact), the proposed improvements do not involve new uses or structures that could fundamentally conflict with existing land uses nearby, and the proposed Project is fully consistent with the *Estuary Policy Plan* which established the original vision, policies, and land use classification for the Park.

8.1.3 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2009 EIR, the proposed Project would not result in new or substantially more severe impacts than those identified in the 2009 EIR regarding land use, plans, and policies. Mitigation measures

identified in the 2009 EIR for this topic do not pertain to the proposed Project. No mitigation measures are required. No additional analysis is required. No further analysis is warranted.

B. Transportation and Circulation

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous EIR	Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR	New Significant Impact
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.	☒	☐	☐

NOTE: Notable change shown to 2009 EIR thresholds due to subsequent changes in State CEQA Guidelines and/or Oakland CEQA Thresholds. Numerous *Transportation, Circulation, and Parking* thresholds that applied in the 2009 EIR no longer apply under CEQA and are not listed above.

8.2.1 2009 EIR Findings

The specific CEQA criteria for transportation, circulation and parking listed in the table above did not apply when the 2009 EIR was prepared, however, the analysis in the EIR addressed each of the topics mentioned. Although a specific VMT criterion was not included in the 2009 EIR, the analysis did discuss policies and Approved Project characteristics to reduce vehicle miles travelled.

Pursuant to CEQA criteria applicable when the 2009 EIR was prepared, the analysis included a comprehensive transportation impacts analysis based on intersection peak-hour Level of Service (LOS), trip delay, or percentage of contribution to increases in intersection traffic. Considering 52 study intersections, the 2009 EIR analysis identified four significant and unavoidable impacts regarding LOS impacts at local intersections in 2010 (Phase I of the Approved Project) (under Impact B.1); 17 less than significant impacts (with incorporation of mitigation measures) regarding LOS impacts at local intersections in 2025 (Buildout) (under Impact B.2); and 17 local intersection impacts under cumulative conditions (under Impact B.3). The numerous intersection impacts are not listed here, since impacts due to traffic under the LOS, trip delay, or traffic contribution criteria no longer apply and are not discussed further in this document.

Considering the potential impacts of traffic on regional and local roadways, the 2009 EIR identified a less than significant impact (no mitigation measures required) for year 2010 (Impact B.8) and a less than significant impact (with incorporation of mitigation measures) for year 2025 (Impact B.9). The regional and local roadway criterion is also no longer considered under CEQA but is now a non-CEQA land use planning consideration by the City of Oakland. Further, most mitigation measures identified to address impacts under

these LOS, trip delay or traffic contribution criteria identified in the 2009 EIR have been fulfilled or are currently being fulfilled.

Relevant to this analysis of the proposed Project in this Addendum, the 2009 EIR identified less than significant impacts (with incorporation of mitigation measures) regarding the demand for alternative transportation service (Impact B.4); conflicts among different traffic streams (Impact B.7); and construction-period transportation, parking, and pedestrian safety considerations (Impact B.10). The 2009 EIR also identified less than significant impacts (no mitigation measures required) pertaining to increased demand for bicycle parking (Impact B.5) and the potential for pedestrian safety conflicts (Impact B.6).

8.2.2 Project Analysis

8.2.2.1 Conflicts with Plans, Ordinances, or Policies Relating to Safety, or Performance of the Circulation System (Criterion B.a)

As described in Section 4.0 (*Project Description*), the proposed Project would consist of approximately 55,625 square feet of shoreline (#1), an approximately 1,850 square foot restroom/shower facility, approximately 243,000 square feet of park space, approximately 47,500 square feet of concrete paved area, and approximately 454,000 square feet of asphalt paved area. Also described in Section 4.0 and summarized in Table 1 of this document, the proposed Project involves new improvements or Elements to Estuary Park that were not considered in the 2009 EIR analysis; these are new picnic areas (#6), an approximately 1,850 square-foot public restroom/boating program showers building (#7), a new dog park (#10), structural reinforcement of the existing trellis (#13),), a new open-air boat storage (#15), and (although shoreline improvements were previously analyzed for other parts of the Approved Project) the addition of shoreline improvements on the south shore of Estuary Park specifically (#1). These new proposed improvements would not result in changes that would result in an impact regarding consistency with plans, ordinances and policies regarding transportation safety, or the performance of the circulation system (current Criterion B.a). As discussed throughout this section and the 2009 EIR, the expansion and improvements proposed to Estuary Park is consistent with the City's 1999 *Bicycle Master Plan*, 2002 *Pedestrian Master Plan*, and waterfront and multi-modal transportation policies in the Land Use and Transportation Element (LUTE) of the Oakland General Plan.

Further, consistent with overall improvements considered for Estuary Park in the 2009 EIR, the proposed Project will improve and expand pedestrian and vehicular access, egress, and circulation throughout the Park (#3) and add a new shoreline path (#8). Relocated, expanded, and/or resurfaced parking areas (#2); bicycle access and parking improvements and upgrades to the existing EVA/fire access road– all considered in the 2009 EIR analysis – will enhance safety for Park users and area motorists, cyclist, and pedestrians. The proposed extension of the existing EVA/fire access road will also further enhance safety. The new improvements to Estuary Park will not result in a substantial increase in the number of pedestrians and motorists, thereby increasing the risk of

collision beyond that considered in the 2009 EIR. Similarly, none or the new improvements to Estuary Park would substantially increase the less than significant (with incorporate of mitigation measures) the demand for transit services disclosed in the 2009 EIR (Impact B.4), the EVA/fire access road will be extended to access and serve the entire Park.

2009 EIR Mitigation Measure B.7 *(Traffic Conflicts/Site Redesign)* addressed the potentially significant impact of increased conflicts among different traffic streams, notably vehicles, pedestrians, and trains at intersections along Embarcadero (Impact B.7). However, the Project Site redesign directed by Mitigation Measure B.7 pertained to ADA and roadway signal standards that have already been initiated or completed as phases of the Approved Project. In 2023, the Brooklyn Basin developer applied for and was granted by the City Council a modification to the mitigation measure that permitted an in-lieu payment for the improvements given the infeasibility of delivering the improvements. 2009 EIR Mitigation Measure B.10 *(Traffic Management Strategies)* reduces the potentially significant temporary impact of construction activities on traffic flow and circulation, parking, and pedestrian safety (Impact B.10) and would continue to apply with the proposed Project. Also, newly identified SCA TRA-1, *Construction Activity in the Public Right-of-Way*, aligns with 2009 EIR Mitigation Measure B.10 and would further enhance safety if/when temporary construction-related obstructions occur in the public right-of-way, which includes City streets and sidewalks.

In summary the proposed Project would maintain the less than significant impact with 2009 EIR Mitigation Measure B.10 *(Traffic Management Strategies)* regarding conflicts with adopted plans, ordinances, or policies addressing safety and performance of the circulation system. The proposed Project will also implement newly specified SCA TRA-1, *Construction Activity in the Public Right-of-Way*, and SCA REC-1, *Access to Parks and Open Space*.

8.2.2.2 Vehicle-Miles-Traveled Assessment (Criterion B.b)

Estimating Vehicle Miles Traveled (VMT) considers the length of vehicle trips on the transportation network, as well as the changes in VMT behavior that may occur with the introduction of a project. The assessment of VMT presumes that a proposed project involves land uses that generate vehicle trips. The assessment of VMT was not explicitly required when the 2009 EIR was prepared

The City of Oakland's Transportation Impact Review Guidelines (TIRG) include thresholds of significance for VMT regarding residential projects, office projects, and retail projects - none of which are part of the proposed Project improvements. Each threshold compares how the VMT of one of these project types compares to the regional VMT of the same project type, considering percentages of VMT change or a net increase in VMT. The City also applies VMT screening criteria that identify certain projects that would be considered less than significant without further evaluation. Screening criteria include

1. "Small Projects" (i.e., generates fewer than 100 vehicle trips per day);

2. Projects located "within Low-VMT Areas" (i.e., areas exhibiting below-threshold VMT or that are at least 15 percent below the regional average VMT); and

3. Projects "Near Transit Stations" (i.e., located in a Transit Priority Area[1] or within one-half mile of a Major Transit Corridor or Stop[2] and meeting other certain criteria pertaining to floor area ratio (FAR), relative parking use included, and consistency with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Transportation Commission [MTC]).

Estuary Park is 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, existing on-street metered parking and off-street public parking is provided in the area, implemented by the Approved Project; some replacement parking is proposed within the proposed Project areas and likely dedicated for Park use.

As discussed in Criterion B.a above, the new proposed improvements not considered in the 2009 EIR are not expected to attract more visitors to the Park than previously anticipated in the 2009 EIR analysis, Estuary Park is designated as a "community park" as well as a local and citywide-serving "special use park" given the JLAC facilities within the Park. As discussed in the 2009 EIR, the new series of parks and open spaces that would be created with the Approved Project, Estuary Park would also be considered local-serving given its proximity to nearby residential and mixed use neighborhoods nearby, including the new Brooklyn Basin development, the residents and patrons of which are expected to use the Park.

The new improvements with the proposed Project are not vehicle trip generators, collectively or individually. Further, the new improvements would not change the acreage of the previously considered Park nor change existing vehicle access or roadway capacity. The expansion and improvements to Estuary Park, pursuant to the City-prepared Master Plan and Project Conceptual Plan, fulfills a long-time vision to create a major open space of citywide and regional significance at an expanded Estuary Park. The new improvements would not substantially alter how new users would access the Park. Combined with offsite pedestrian and bicycle facility improvements already implemented along Embarcadero adjacent to the Park, several proposed Project improvements are intended to encourage and support more use of non-motorized modes by Park users: improved and expanded pedestrian and vehicular circulation throughout the Park (#3), a

[1] The California Public Resource Code (PRC) defines a Transit Priority Area as a one-half mile area around an existing major transit stop or an existing stop along a high-quality transit corridor. PRC Section 21064.3 defines major transit stop as a site containing an existing 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 15 minutes or less during the morning and afternoon peak commute periods. PRC Section 21155 defines a high-quality transit corridor as a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

[2] "Major transit stop" is defined in California PRC 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.

new shoreline path with passive recreation nodes (#8), and improved bicycle access and bicycle parking facilities.

In summary, since any notable increase in vehicle trips to the Park would not be due to the nature of the new proposed improvements, the proposed Project is therefore screened out from a VMT assessment. No impact would occur.

8.2.2.3 Induced Automobile Travel (Criterion B.c)

The proposed Project would not modify the roadway capacity or add new roadways to the network. All proposed improvements are located within the proposed Project Site. Improvements are proposed at the northeast entrance of the Park and may involve altering the driveway dimensions. However, if widened, this improvement would not induce additional automobile travel associated with the Park. No mitigation measures are required.

8.2.3 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2009 EIR, the new improvements the proposed Project would not result in any new or substantially more severe impacts than those identified in the 2009 EIR. Implementation of **2009 EIR Mitigation Measure B.10** ***(Traffic Management Strategies)*** and newly identified **SCA TRA-1,** ***Construction Activity in the Public Right-of-Way,*** and **SCA REC-1,** ***Access to Parks and Open Space,*** (all stated fully in Attachment A) would apply and ensure that potential transportation, circulation, and parking impacts are less than significant. No other mitigation measures identified in the 2009 EIR for this topic pertain to the proposed Project. SCA TRA-1 supports but does not replace 2009 EIR Mitigation Measure B.10, and no new mitigation measures are required. No additional analysis is required. No further analysis is warranted.

C. Air Quality

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous EIR	Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR	New Significant Impact
Air Quality - Project-level Thresholds: 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 PM_{10}; 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 PM_{10}; 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}; or	☒	☐	☐
b. For new sources of Toxic Air Contaminants (TACs), during either project construction or project operation expose sensitive receptors to substantial levels of TACs under project conditions resulting in (a) an increase in cancer risk level greater than 10 in one million, (b) a noncancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average PM2.5 of greater than 0.3 microgram per cubic meter; or, under cumulative conditions, resulting in (a) a cancer risk level greater than 100 in a million, (b) a noncancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average PM2.5 of greater than 0.8 microgram per cubic meter; or 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 noncancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average PM2.5 of greater than 0.8 microgram per cubic meter.	☒	☐	☐
c. Frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people	☒	☐	☐

NOTE: Changes shown to 2009 EIR thresholds due to subsequent changes in State CEQA Guidelines and/or Oakland CEQA Thresholds.

8.3.1 2009 EIR Findings

Construction-related air emissions were evaluated in the 2009 EIR (Impact C.1) and the impact was determined to be less than significant (with implementation of mitigation measures). Mitigation measures included the implementation of Bay Area Quality Management District's (BAAQMD)'s basic and enhanced dust control procedures, adherence to BAAQMD regulations addressing the demolition and disposal of any asbestos containing building materials. The 2009 EIR also determined that the Approved Project would contribute to a cumulatively significant and unavoidable impact on the

regional PM_{10} levels (Impact C.7), even with implementation of a menu of measures to reduce vehicle trip generation and encourage alternatively powered vehicle use.

Less than significant impacts (no mitigation measures required) identified in the 2009 EIR included the increase in regional ROG, NOx, and PM emissions (Impact C.2); localized carbon monoxide concentrations (Impact C.3); objectionable odors (Impact C.4); health risk effects from diesel emissions (Impact C.5); as well as the potential for the Approved Project to pose hazardous wind conditions under project and cumulative scenarios (Impacts C.6 and C.8).

8.3.2 Project Analysis

The proposed Project would consist of approximately 55,625 square feet of shoreline (#1), an approximately 1,850 square foot restroom/shower facility, approximately 243,000 square feet of park space, approximately 47,500 square feet of concrete paved area, and approximately 454,000 square feet of asphalt paved area. The proposed Project involves improvements that were conceptual or undefined for Estuary Park when the 2009 EIR was prepared. Conservatively, as to not underestimate the potential effects, this air quality analysis assumes all improvements to the Park (as described in Table 1 in Chapter 4.0, *Project Description*), including those conceptually described and considered part of the Approved Project in the 2009 EIR, are analyzed in this addendum.[3]

8.3.2.1 Construction and Operational Emissions (Criterion C.a)

Construction Air Emissions

Methodology and Assumptions

The air quality analysis presented below used the following methodology and assumptions to calculate the average daily construction emissions associated with the proposed Project:

- Construction emissions were estimated using the most recent web-version of CalEEMod (version 2022.1.1.18).

- As to not underestimate potential effects, Project construction was conservatively assumed to begin in January 2024, but could potentially commence in Spring/Summery 2025. A later construction start-date means the default feet mix for construction equipment and vehicles would be cleaner as emission factors in future years are expected to decrease in response to increasingly stringent regulations and standards, resulting in a lower impact. Regardless of its start date, construction activity would last for 18 months. The durations of the various

[3] As explained under other environmental topics in this document where relevant, the proposed Project includes certain improvements to Estuary Park that were not considered in the 2009 EIR (new picnic areas, new public restroom/boating program showers building, a new dog park, structural reinforcement of the existing trellis, new open-air boat storage, and the addition of shoreline improvements on the south shore of Estuary Park specifically). The "new" improvements are specifically the "changes" to the Approved Project, however all the proposed improvements (listed in Table 1 and Figure 4 for the "Project Conceptual Plan") are considered in this addendum.

construction phases (e.g., site preparation, grading, building construction) were model defaults based on the overall proposed Project construction duration.

- The number and types of construction equipment used for each phase, their activity level, as well as the number of on-road vehicle trips (worker, haul, and vendor) during each phase of construction were model defaults based on proposed Project land use types (e.g., park, building construction, shoreline beach/transition area, and paving).

- Off-haul of approximately 1,400 cubic yards (a conservative overestimate) for the park and approximately 2,500 cubic yards for the shoreline beach/transition area improvements were provided by WRT (City Design Team) and ESA, respectively.

- The proposed Project would consist of approximately 55,625 square feet of shoreline (#1), an approximately 1,850 square foot restroom/shower facility, approximately 243,000 square feet of park space, approximately 47,500 square feet of concrete paved area, and approximately 454,000 square feet of asphalt paved area.

Analysis

With approximately 5.6 acres of park space and approximately 1,850 square feet of recreational building space, the proposed Project is well below the BAAQMD screening thresholds of 10 acres of park space and 452,000 square feet of recreational building space.[4] Nevertheless, the average daily construction-related emissions for the proposed Project, as estimated using CalEEMod based on the assumptions listed above, are presented below in **Table 7.2-1**.

As shown in the table, annual average daily construction emissions for the proposed Project would not exceed the City's thresholds for ROG, NO_X, PM_{10} exhaust, or $PM_{2.5}$ exhaust, and the proposed Project would result in less-than-significant impacts with respect to criteria pollutant emissions during construction. While the City does not have quantitative standards for PM fugitive dust emissions from construction activities, the proposed Project will incorporate SCA AIR-1, *Dust Controls – Construction-Related*, which would reduce fugitive dust impacts during construction of the proposed Project to less than significant. In addition, SCA AIR-2, Criteria Air Pollutant Controls – Construction Related, and SCA AIR-3, *Diesel Particulate Matter Controls – Construction Related*, would also apply to the proposed Project. SCA AIR-3 provides projects the option to either (i) conduct a Health Risk Assessment (HRA) or (ii) use all off-road diesel equipment equipped with Tier 4 Final engines for project construction. The Project Applicant has opted to implement option (i), which requires preparation of an HRA (discussed under 8.3.2.2 *Toxic Air Contaminants*, below and included as **Appendix B**). Therefore, the proposed Project would not result in a new or more severe significant construction impact

[4] Bay Area Air Quality Management District (BAAQMD). 2023. 2022 CEQA Thresholds and Guidelines Update. Available at: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines. Accessed August 2023.

compared to that identified in the 2009 EIR considered in this analysis. No mitigation measures are required.

TABLE 7.2-1
PROJECT CONSTRUCTION EMISSIONS

Average Daily Construction Exhaust Emissions by Construction Year	Average Daily Emissions (pounds per day) [a]			
	ROG	NO_x	Exhaust PM_{10}[b]	Exhaust $PM_{2.5}$[b]
2024	2.34	22.0	0.94	0.86
2025	0.71	2.35	0.11	0.09
City of Oakland Thresholds	54	54	82	54
Significant (Yes or No)?	**No**	**No**	**No**	**No**

NOTE:
a. Project construction emissions estimates were made using CalEEMod, version 2022.1.1.18.
b. Thresholds of PM are only for comparison with exhaust emissions and do not account for PM fugitive dust emissions.
c. The analysis assumes January 2024 as the earliest possible construction start date for the Project, so as to not underestimate the potential environmental effect. Construction could commence in Spring/Summary 2025.

SOURCE: Appendix B

Operational Air Emissions

Methodology and Assumptions

The analysis presented below used the following assumptions to calculate the daily operational emissions associated with the proposed Project:

- Vehicle trip rates were generated from CalEEMod defaults.
- All other inputs in CalEEMod were based on model default values. [5]

Analysis

With approximately 5.6 acres of park space and 1,850 square feet of recreational building space, the proposed Project is well below the Bay Area Quality Management District (BAAQMD) screening threshold of 10 acres of park space and 452,000 square feet of recreational building space.[6] Nevertheless, the daily operational emissions for the proposed Project, based on the assumptions above, are presented in **Table 7.2-2**. As shown in the table, annual average daily regional emissions for the proposed Project would not exceed the City's thresholds for ROG, NOx, PM_{10}, or $PM_{2.5}$. Like the construction thresholds discussed above, these thresholds were developed to assess a project's cumulatively considerable contribution to regional air quality.

[5] City of Oakland. 2020. Oakland City Council Ordinance No. 13632. Available online: https://cao-94612.s3.amazonaws.com/documents/13632-CMS.pdf. Accessed August 2023.
[6] Bay Area Air Quality Management District (BAAQMD). 2023. 2022 CEQA Thresholds and Guidelines Update. Available at: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines. Accessed August 2023.

As shown in Table 7.2-2, the proposed Project would have less than significant impacts with respect to operational emissions and thus would not result in a new or more severe significant impact compared with the 2009 EIR. No mitigation measures are required.

TABLE 7.2-2
EMISSIONS FROM PROJECT OPERATION

Source	ROG	NO_x	PM_{10}	$PM_{2.5}$
Area Sources (pounds/day)	0.12	< 0.01	< 0.01	< 0.01
Energy Use (pounds/day)	< 0.01	0.02	< 0.01	< 0.01
Mobile Sources (pounds/day)	0.17	0.15	0.31	0.08
Average Daily Emissions (pounds/day)	0.30	0.17	0.30	0.08
City of Oakland Thresholds	54	54	82	54
Significant (Yes or No)?	No	No	No	No
Maximum Annual Emissions (tons/year)	0.05	0.03	0.05	0.01
City of Oakland Thresholds	10	10	15	10
Significant (Yes or No)?	No	No	No	No

NOTE: Totals may not add up due to rounding.

SOURCE: Appendix B

8.3.2.2 Toxic Air Contaminants (Criterion C.b)

Assumptions and Methodology

Toxic air contaminants (TACs) are types of air pollutants that can cause health risks. TACs do not have ambient air quality standards but are regulated using a risk-based approach. The California Air Resources Board has classified diesel particulate matter (DPM) in the exhaust of diesel engines as a TAC. During construction of the proposed Project , DPM is generated from the combustion of diesel in off-road construction equipment and on-road trucks used for transporting materials and equipment. Typically, emissions of PM_{10} exhaust from diesel combustion of construction equipment are used as a surrogate for DPM emissions in health risk calculations.

An HRA is an analysis of exposure to toxic substances and human health risks from exposure to toxic substances, based on the potency of the toxic substances and the duration of exposure. Such an assessment evaluates the chronic, long-term effects, calculating the increased risk of cancer resulting from exposure to one or more TACs. A project that results in an increased cancer risk equal to or greater than 10 in 1 million for the Maximally Exposed Individual (MEI) would be considered to have a significant health impact on sensitive receptors. The threshold for *Acute and Chronic Non-Carcinogens* is a Hazard Index equal to or greater than 1.0 for the MEI and an increase of annual average $PM_{2.5}$ of greater than 0.3 microgram per cubic meter.[7]

[7] Bay Area Air Quality Management District (BAAQMD). 2023. 2022 CEQA Thresholds and Guidelines Update. Available at: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines. Accessed August 2023.

As stated previously regarding SCA AIR-3(i), the Project Applicant has opted to conduct a HRA to determine health risk to sensitive receptors exposed to DPM from the Proposed Project construction emissions.

Construction TAC Emissions

Construction-related activities over the estimated 18-month construction period for the proposed Project would result in the generation of TACs, specifically DPM, from on-road heavy-duty trucks and off-road equipment. Due to the variable nature of construction activity, the generation of TAC emissions in most cases would be temporary, especially considering the short amount of time such equipment is typically within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations.

Regarding construction TACs emissions, BAAQMD recommends that a HRA be conducted when sensitive receptors are located within 1,000 feet of project construction activities. The closest sensitive receptor to the project site is the Portobello/Embarcadero West apartment complex adjacent to the west boundary of the proposed Project site. Consequently, an HRA was conducted to determine the level of risk generated by construction-related TACs to the nearby residential receptors and to satisfy the requirements of SCA AIR-3(i). The methods and results of the HRA are described below. Specific calculation tables and model outputs are included in Appendix B.

In accordance with the Office of Environmental Health and Hazard Assessment's (OEHHA) 2015 *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments,*[8] the HRA applied the highest estimated concentrations of DPM at the receptors analyzed to established cancer potency factors and acceptable reference concentrations for non-cancer health effects. The maximum DPM concentration as modeled using USEPA's AERMOD dispersion model occurred at the residential receptors at the Portobello/Embarcadero West Apartments located directly west of the proposed Project site and represent the Maximum Exposed Individual Receptor (MEIR). Increased cancer risks were calculated using the modeled maximum DPM concentrations and OEHHA-recommended methodologies for infants (third trimester through two years of age), the most sensitive age group. Child and adult exposure at this location would be less than the risk assessed for infants.

Table 7.2-3 shows the cancer risk, chronic Hazard Index (HI), and $PM_{2.5}$ concentrations at the residential MEIR from Project-related construction activities. As shown in Table 7.2-3, uncontrolled risks would exceed the City's threshold for cancer risk at the MEIR. Consistent with SCA AIR-3(i), this analysis identifies the use of all off-road diesel equipment equipped with Tier 4 Final engines as the DPM reduction measure to reduce risks below the significance thresholds. Currently, Tier 4 Final engines represent best available control technology for control of DPM from construction equipment and are expected to reduce emissions by approximately 85 percent.[9] As described in Section 7.3 in

[8] OEHHA, 2015. Air Toxics Hotspots Program – Risk Assessment Guidelines, February 2015.
[9] http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm

the introduction to this CEQA Checklist, and in Attachment A to this document, SCAs are not mitigation measures; they are Environmental Protection Measures - Uniformly Applied Development Standards that substantially mitigate environmental effects and are incorporated into a project regardless of the project's environmental determination.[10] A comparison of emissions to the threshold before application of the SCA is presented for clarity of the analysis to the reader and to demonstrate the effectiveness of the SCA.

Table 7.2-3 shows that with the use of Tier 4 Final engines in construction equipment, health risk at the MEIR would be less than the City's significance thresholds. Therefore, with the implementation of SCA AIR-3(i), health risks from proposed Project construction to nearby sensitive receptors would not exceed the City's CEQA significance thresholds. The potential impact of the proposed Project regarding exposure of existing receptors to construction related health risks would be less than significant, and no mitigation measures would be required. This conclusion is the same as the conclusion reported in the 2009 EIR.

TABLE 7.2-3
MAXIMUM HEALTH RISKS FROM PROJECT CONSTRUCTION

Health Risk at MEIR	Maximum Cancer Risk (in a million)	Chronic Risk (Hazard Index)	Maximum $PM_{2.5}$ concentration
Uncontrolled Scenario			
Residential Receptor	**19.1**	0.02	0.11
Project-level Threshold	10	1.0	0.3
With Tier 4 Final Construction Equipment (required SCA AIR-3)			
Residential Receptor	4.5	<0.01	0.03
Project-level Threshold	10	1.0	0.3
Significant?	No	No	No

SOURCE: Appendix B.

Operational TAC Emissions

The proposed Project would not include any stationary source of TAC emissions, as it does not include a back-up generator and would not contribute to any operational health risks to sensitive receptors from stationary sources. The proposed Project is a recreational redevelopment project, approximately 11 acres in area. Vehicle traffic associated with visitors would not contribute a substantial amount to the health risk exposure to the proposed Project or offsite receptors. Therefore, the proposed Project would result in a less than significant impact with respect to operational TAC emissions, and an operational HRA is not required. This conclusion is the same as the conclusion found in the 2009 EIR.

Cumulative Impacts and Project Contribution

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

[10] Pursuant, in part, to California Environmental Quality Act (CEQA) Guidelines sections 15183 and 15183.3.

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[11].

Emissions associated with the proposed Project would not exceed the project-level thresholds, as explained above. Therefore, the proposed Project would not result in a cumulatively considerable contribution to significant cumulative regional air quality impacts, and the cumulative air quality impact would be less than cumulatively considerable. No mitigation measures are required.

The cumulative health risk impact of the proposed Project to existing nearby receptors would be the proposed Project's construction health risks combined with background health risks from stationary and mobile sources in the vicinity of the proposed Project site. The Project would not include any operational sources of TACs. The proposed improvements to the Project site are substantially aligned with what was envisioned for Estuary Park in the analysis in the 2009 EIR (see Table 1 in Section 4.0 [*Project Description*]). With implementation of SCA AIR-3, the proposed Project's contribution to the cumulative health risk impacts would remain the same as the 2009 EIR.

8.3.2.3 Objectionable Odors (Criterion C.c)

No aspect of the proposed Project will introduce objectionable odors. The impact would remain less than significant as identified in the 2009 EIR.

8.3.3 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2009 EIR, implementation of the proposed Project (construction and operation) would not substantially increase the severity of significant impacts identified in the 2009 EIR, nor would it result in new significant impacts related to air quality that were not identified in the 2009 EIR or not applicable when the 2009 EIR was prepared. Implementation of **SCA - AIR-1, *Dust Controls – Construction-Related*; SCA AIR-2, *Criteria Air Pollutant Controls - Construction Related*; and SCA AIR-3, *Diesel Particulate Matter Controls-Construction Related*** (all stated fully in Attachment A) would be applicable to and implemented by the proposed Project and would further ensure that, to the extent feasible, air quality impacts associated with the proposed Project are less than significant. No additional mitigation measures are required.

[11] Bay Area Air Quality Management District (BAAQMD). 2023. 2022 CEQA Thresholds and Guidelines Update. Available at: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines. Accessed August 2023

D. Hydrology and Water Quality

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous EIR	Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR	New Significant Impact
a. Violate any water quality standards or waste discharge requirements; Result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters; Create or contribute substantial runoff which would be an additional source of polluted runoff; Otherwise substantially degrade water quality; Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect hydrologic resources.	☒	☐	☐
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. Create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems; 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	☒	☐	☐
d. Result in substantial flooding on- or off-site; 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; Place within a 100-year flood hazard area structures which would impede or redirect flood flows; Expose people or structures to a substantial risk of loss, injury, or death as a result of inundation by seiche, tsunami, or mudflow; or Expose people or structures to a substantial risk of loss, injury, or death involving flooding.	☒	☐	☐

8.4.1 2009 EIR Findings

The 2009 EIR identified less than significant impacts (no mitigation measures required) regarding regulatory water quality standards and waste requirements, primarily because

of the Approved Project's adherence to established regulatory requirements and best management practices (BMPs) regarding stormwater infiltration and discharges into the Estuary. These impacts were identified at the project level, which was also considered beneficial effect (Impact D.3), as well as for cumulative conditions (Impact D.9). The 2009 EIR also identified a less than significant impact to water quality standards and waste discharge requirements affected by the increased use of Approved Project marinas (Impact D.4). Less than significant impacts were identified regarding the exposure of people or property to risks associated with flooding, seiche, tsunami, or mudflow (Impact D.7), as well as decreased stormwater runoff volumes resulting from reconfigured and stabilized shorelines along the project site, also a beneficial effect (Impact D.8).

The 2009 EIR identified water quality and waste discharge impacts that would be less than significant after the implementation of mitigation measures. Impacts and mitigation measures were identified to address construction period erosion or other polluted runoff to the adjacent waters during construction (Impact D.1), adverse impacts aquatic organisms and water quality resulting from dredging in Clinton Basin (Impact D.2), as well as the potential effects of landscaping and open lawn chemicals on water quality impacts (Impact D.5). The 2009 EIR also identified a less than significant (with the implementation of a mitigation measure) regarding groundwater quality due to the excavation and trenching activities during construction (Impact D.6).

8.4.2 Project Analysis

8.4.2.1 Water Quality Standards / Waste Discharge Requirements, Groundwater or Recharge, and Stormwater Drainage Capacity and Patterns (Criteria D.a through D.c)

The proposed Project does not involve substantial changes to the proposed water-related improvements, overall construction activities, or surface and subsurface conditions of the Project site -- conditions that would change any of the 2009 EIR impacts or mitigation measures to address water quality and waste discharge impacts. The proposed Project would consist of approximately 55,625 square feet of shoreline (#1), an approximately 1,850 square foot restroom/shower facility, approximately 243,000 square feet of park space, approximately 47,500 square feet of concrete paved area, and approximately 454,000 square feet of asphalt paved area. Construction activities would involve excavation, soil stockpiling, and grading as addressed with the Approved Project, however, the proposed Project is not expected to involve pile driving or dredging.

Except for the creation of the new sand and gravel pocket beach and shoreline improvements (#1), the proposed Project does not involve in-water work. The proposed pocket beach and shoreline improvements are added to the south shore of the Park, and the potential environmental effects are within the analysis of the proposed shoreline improvement in the 2009 EIR, which assessed reconfigurations and stabilizations along the Approved Project shoreline east of Lake Merritt Channel (Impact D.8). The improvements considered in the 2009 EIR involved shoreline cut and fill, new and existing

rip-rap improvements, and vegetated shoreline embankments with or without retaining walls. The proposed construction of the Park improvements would also have potential water quality effects resulting from erodible soils and the potential mismanaged use of fuel or other chemicals, including those that may be used for landscaping and open lawn areas. The proposed Project will also introduce green infrastructure to treat stormwater drainage. 2009 EIR Mitigation Measure D.1 *(Permitting)* and newly added SCA HYD-3, *Erosion and Sedimentation Control Plan for Construction*; SCA HYD-4, *State Construction General Permit*; and SCA HYD-5, *NPDES C.3 Stormwater Requirements for Regulated Projects*, require compliance with all regulatory requirements and BMPs pursuant to the National Pollution Discharge Elimination System (NPDES), the San Francisco Regional Water Quality Control Board (RWQCB), as well as Oakland Creek Protection Permits would continue to apply to the proposed Project, mitigating potential impacts associated with development of the proposed Project pocket beach and shoreline improvements to less than significant, as with the Approved Project. Since preparation of the 2009 EIR, the City requires SCA HYD-1, Bay Conservation and Development Commission (BCDC) Approval, to be implemented prior to any activity requiring a permit or approval from BCDC, which would which further reduce effects to Bay waters to less than significant.

The proposed Project would not change the potential groundwater impacts during construction, and 2009 EIR Mitigation Measure D.6 *(Dewatering Permitting)*, also requiring compliance with NPDES permit requirements, would continue to apply. Similarly, the proposed Project involves the development and maintenance of landscaping and open lawn, which would be reduced to less than significant with 2009 EIR Mitigation Measure D.5 *(Landscape Management Plan)*. The proposed Project is not expected to involve dredging activities; however, 2009 EIR Mitigation Measure D.2 *(Dredge Permitting)* is maintained in case it is ultimately required to address activities to create the pocket beach and shoreline improvements.

No improvements are proposed that would change the 2009 EIR's less than significant (no mitigation measure required) impact findings regarding water quality during and post-construction (Impacts D.3 and D.8). Similarly, the proposed Project improvements do not pertain to increased use of Approved Project marinas (Impact D.4).

8.4.2.2 Flooding and Flood Flows; Risk of Loss Resulting from Flooding or Inundation by Seiche, Tsunami, or Mudflows (Criterion D.c and D.d)

No improvements are proposed that would change the 2009 EIR's less than significant impact findings regarding flooding and flood-related risks (Impact D.7) or a noticeable change in impervious and pervious surface areas throughout the Park and the resulting stormwater drainage (Impact D.8). The Project site is mapped within the FEMA 100-year floodplain. Therefore, newly identified SCA HYD-2, *Structures in a Flood Zone*, would apply and would ensure the proposed Project would not interfere with the flow of water or increase flooding, thus ensuring the flooding impacts remain less than significant level.

8.4.3 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2009 EIR, implementation of the proposed Project would not result in any new or more severe significant impacts related to hydrology and water quality. Implementation of **2009 EIR Mitigation Measure D.1** ***(Permitting)***; **2009 EIR Mitigation Measure D.2** ***(Dredge Permitting)***; **2009 EIR Mitigation Measure D.5** ***(Landscape Management Plan)***; and **2009 EIR Mitigation Measure D.6** ***(Dewatering Permitting)***; in addition to **SCA HYD-1,** ***BCDC Approval***; **SCA HYD-2,** ***Structures in a Flood Zone***; **SCA HYD-3,** ***Erosion and Sedimentation Control Plan for Construction***; **SCA HYD-4,** ***State Construction General Permit***; and **SCA HYD-5,** ***NPDES C.3 Stormwater Requirements for Regulated Projects***, (all stated fully in Attachment A) would ensure that potential impacts to hydrology and water quality would be less than significant. No additional mitigation measures are required. No further analysis is warranted.

E. Cultural and Historic Resources

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous EIR	Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR	New Significant Impact
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 of Historical Resources, the National Register of Historic Places, 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; or	☒	☐	☐
d. Disturb any human remains, including those interred outside of formal cemeteries.	☒	☐	☐

8.5.1 2009 EIR Findings

The 2009 EIR addressed impacts associated with the Approved Project, which included Estuary Park. The 2009 EIR analyzed 15 buildings and structures located on the Approved Project site that met the age-threshold for consideration as a potential historic resource (45-years of age) and concluded that only the Ninth Avenue Terminal (One Ninth Avenue) qualified as a historic resource for the purposes of CEQA. The Approved Project included partial demolition of the Ninth Avenue Terminal. While the Approved Project included Estuary Park, the park did not meet the age-threshold for consideration when the 2009 EIR was prepared.

As a result of the partial demolition of a historic resource, the 2009 EIR concluded that the Approved Project would result in four significant and unavoidable impacts to historic architectural resources, despite the application of mitigation measures. These significant and unavoidable impacts addressed demolition of the Ninth Avenue Terminal (Impact E.3), substantial alteration of the wharf structure supporting the Ninth Avenue Terminal (Impact E.4), and the possibly incompatibility of new construction near the Bulkhead

Building (Impact E.5). The analysis also concluded that demolition of other buildings within the Approved Project site would result in a less than significant (no mitigation required) impact to historical resources (Impact E.6), and the potential effect of new development on the industrial character and setting (Impact E.7) was also considered a less than significant impact (no mitigation measures required).

The 2009 EIR concluded that the project would result in less than significant impacts (with implementation of mitigation measures) regarding the potential for construction of the Approved Project to cause substantial adverse changes to the significance of currently unknown cultural resources, including archeological resources or the disturbance of any human remains (Impact E.1), as well as the potential to adversely affect unidentified paleontological resources (Impact E.2).

8.5.2 Project Analysis

8.5.2.1 Historic Architectural Resources (Criterion E.a)

Estuary Park was designed by notable landscape architecture firm Lawrence Halprin & Associates (LH&A) in 1972. While Estuary Park is located within the boundaries of the Oak to Ninth Street Project, it did not meet the 45-year age-threshold requirement for consideration as a potential resource when environmental review was completed for that project in 2009. In preparation for renovation of Estuary Park in 2018, the park was evaluated by Archaeological/Historical Consultants as a potential historic resource (Attachment A to **Appendix C**). The report identified three potential resources: a LH&A designed park constructed between 1968 and 1972; a series of large outdoor sculptures associated with a sculpture design program directed by the Oakland Museum of California and installed between 1979 and 1982; and the Jack London Aquatic Center (JLAC) which was constructed between 1998 and 2000. At the time (2018), the report concluded that the JLAC and sculpture program did not meet the 45-year age threshold generally applied for consideration of historic resources.

Regarding the LH&A park, the report evaluated it against the criteria for listing in the California Register of Historical Resources (California Register) and the Oakland Cultural Heritage Survey (OCHS). This analysis further applied National Register Criteria Consideration G: *Properties That Have Achieved Significance Within the Last Fifty Years*.[12] In 2018, Estuary Park was 46 years old. Under this guidance, a potential resource must meet higher eligibility standards and be of "exceptional importance." The 2018 report recommended Estuary Park ineligible for listing in the California Register because of a lack of exceptional significance. It was further evaluated with an OCHS score of 24.5, qualifying it as a resource of Secondary Importance (C), and it was therefore not eligible as a historic resource for the purposes of CEQA.

[12] While this guidance was developed to aid in the evaluation of properties for the National Register of Historic Places, it is commonly applied when evaluating eligible properties for inclusion in the California Register as well.

For this analysis of the proposed Project, ESA conducted a peer review of the 2018 analysis (**Appendix C**). As of 2024, the JLAC still does not meet the minimum 45-year age threshold and the Oakland Museum of California sculpture program has been removed from the site. The LH&A designed park is now 51 years old and the exceptional significance standards outlined in Criteria Consideration G are no longer valid. After peer review of the 2018 report and conducting limited additional research, ESA recommends Estuary Park eligible for listing in the California Register under Criterion 3 as a notable and rare example within Oakland of the work of LH&A and for its direct association with master designer Satoru Nishita. The period of significance is 1972, the date the park opened to the public. Estuary Park is one of the best, and only, examples of the work of master landscape architecture firm, LH&A within the City of Oakland. It is also associated with master designer Satoru Nishita, who directly contributed to the revitalization planning for the Oakland Estuary from the late 1960s through the 1980s. While it has suffered from lack of maintenance, it retains integrity and is clearly recognizable as representative of the original design that opened to the public in 1972

Further, the peer review recommends an OCHS rating of 39.8 points, qualifying Estuary Park as a resource of Major Importance (B) with a contingency rating that would qualify it as a resource of Highest Importance (A). As such, it qualifies as a historic resource for the purposes of CEQA analysis.

As a historic resource, Estuary Park has the following character-defining features:

- Wood trellis supported by concrete columns;
- General linear and geometric form of the park with elements arranged on a grid. This contrasts with the irregular shoreline outside of the park;
- Raised concrete platform for the trellis, including its water-facing concrete wall and integrated wood benches;
- Allèe of Plane trees;
- Zig-zagging concrete stairs that provide waterfront access;
- Cylindrical concrete bollards with incised line at the top of the stairs;
- Custom made, wood picnic tables and benches, constructed of heavy timber;
- Size, location, and dimensions of the observation platform at the western end of the allèe; and
- Circular, raised concrete planter at the east end of the allèe, (formerly containing a large-scale art installation).

Once a resource has been identified as a CEQA historic resource, it must be determined whether the project's impacts would "cause a substantial adverse change in the significance" of the resource (CEQA Guidelines Section 15064.5(b)). A substantial adverse change in the significance of a historic resource means "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" (CEQA Guidelines Section 15064(b)(1)). A historical resource is considered materially impaired through the demolition or alteration of the resource's physical characteristics that convey its historical significance and that justify its inclusion in the California Register (CEQA Guidelines Section 15064.5(b)(2)(A)).

Where potential impacts on historical resources are identified, CEQA Guidelines Section 15126.4(b) states that compliance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (Secretary's Standards) will generally reduce potential impacts to a less than significant level.

The proposed Project encompasses the larger park site, including the entirety of the LH&A design. It introduces many new improvements outside the historic resource boundaries as well as new features and modifications within the historic resource boundaries. The improvements or Elements of the proposed Project and within the LH&A landscape (including some improvements not previously considered in the 2009 EIR), include:

1. Extension of the Bay Trail along the park's shoreline and within the current allèe of trees. Construction of the new bike and pedestrian path will require replacement of the existing decomposed granite surface with either stabilized decomposed granite or cast-in-place concrete.
2. Expansion of Estuary Park to the north and west to encompass all of the land between Embarcadero West (north), the Oakland estuary (east and south), and the Portobello Homeowners Association (west).
3. Restoration and structural strengthening of the wood and concrete trellis using the following approach:
    a. Structural reinforcement of the overhead trellis structure with the addition of steel tubing of similar dimension and placement to the existing wood. The goal is to integrate the new steel tubing to be inconspicuous to the casual observer; and
    b. Re-painting the trellis structure to match the original color (white).
4. Alterations to the water-facing concrete wall enclosing the arbor and trellis. This includes:
    a. Removal of approximately 2/3 of the low wall and all of the built-in wooden benches along the eastern edge of the trellis area. Approximately 1/3 of the wall will be retained within the central third of the trellis structure;
    b. Raising the elevation of the grade directly to the east of the platform to bring the Bay Trail to the recommended elevation for sea-level-rise

adaptation. The finish grade will be level with the bottom of the retained portion of wall noted above; and

c. Replacement of the Plane trees with new trees, planted at regular intervals to re-establish the allèe of trees on both sides of the new Bay Trail extension. The number of trees will likely be fewer and species of tree different but the overall aesthetic of the allèe will be maintained in its historic location.

5. Replacement of picnic tables in disrepair with new, wood picnic tables that are similar in design to the original but do not mimic the two (2) original LH&A picnic tables that will be retained. Original picnic tables include the largest example at the north end of the trellis area (oriented north-south) and a smaller table at the south end of the trellis area (oriented east-west). The original tables will flank the new tables within the trellis area.
6. Removal of the circular, raised concrete planter at the east end of the allèe;
7. New pathways through the historic design are limited and are aligned with the original stairs in the concrete bulkhead on the east side of the park. Pathways are straight and follow the orthogonal geometry of the original design.
8. Retention and repairs to the stepped concrete bulkhead along the eastern park boundary. This includes retention and repairs to the concrete bollards.
9. Incorporation of new design elements that are compatible with the original design such as:
    a. Continuation of portions of the concrete bulkhead and steps along the southeastern and southern portion of the LH&A design area. These steps serve as a grade separation element between the raised Bay Trail and the wooden observation pier.
    b. Installation of new wood benches that are compatible with, but do not exactly mimic the original wood benches found throughout the site. Note that all the original benches will be removed.

ESA analyzed the proposed Project for compliance with the Secretary's Standards (**Appendix D**) and concluded that the proposed Project is compatible with the Secretary of the Interior's Standards for Rehabilitation. The proposed design retains all the major character-defining features of the 1972 LH&A design. It repairs the iconic trellis and provides structural strengthening by installing narrow dimension metal tubing within the wood structure. The visual intrusion of the new structural supports is minimal and can be implemented with very limited loss of original wooden material. Examples of the original picnic tables will remain and new tables, located throughout the expanded park, will be compatible in design and materials but will not replicate the original elements. And while all benches will be removed, the new benches are similar in design, but differentiated from the originals so as to not contribute to a false sense of historicism. The concrete bulkhead and bollards will be repaired in-kind and a new set of transitional steps

will augment the existing pedestrian steps to allow access between the bulkhead and the raised grade needed for Bay Trail improvements. New trees will be planted along the raised Bay Trail path to re-establish the allèe of trees. While some elements of the LH&A design will be removed, including the circular planter near the JLAC, portions of the retaining wall separating the picnic area from the circulation pathways, and the benches, the project overall maintains the integrity of the historic resource.

Because the proposed Project is compatible with the Secretary of the Interior's Standards for Rehabilitation, its impact on the historic resource is less than significant. No mitigation measures are required. Because the proposed Project retains the historic resource and rehabilitates the historic resource in a manner that is compliant with the Secretary's Standards, it does not considerably contribute to the cumulative impact identified in the 2009 EIR.

8.5.2.2 Archaeological and Paleontological Resources and Human Remains (Criteria E.b, E.c, and E.d)

Given the high level of fill deposits and urbanization of the Approved Project site, no systematic pedestrian survey of the project site was conducted for the purposes of the 2009 EIR. However, in April 2005 a Registered Professional Archaeologist conducted a reconnaissance level survey of the project site to determine if undisturbed soils or areas suitable for survey exist. No archaeological features or exposed native soils were identified. Moreover, no prehistoric resources have been identified within or adjacent to Estuary Park. Nelson's (1909) shellmound survey and excavations did not identify midden sites within this area of the East Bay. The area was subject to tidal flows and was likely not a suitable habitation locality.

At the proposed Project site, there is no indication that the site has been used for burial purposes in the recent or distant past, and it is unlikely that human remains would be encountered at the project site.

The proposed Project site consists of artificial fill (Af) and undivided surficial deposits (Helley & Greymer 1997). These types of sediments would not likely yield significant paleontological remains because they are surface or artificial deposits that are not considered fossil-bearing rock units. However, significant paleontological resources can be discovered even in areas of low sensitivity. 2009 EIR Mitigation Measures E.1a *(Cultural Resource Evaluation)* and Mitigation Measure E.1b *(Environmental Training)* regarding cultural resources are retained to address these potential effects of the proposed Project, which are the same as previously identified in the 2009 EIR. Also, since certification of the 2009 EIR, the City requires that SCA CUL-1, *Archaeological and Paleontological Resources – Discovery During Construction*, and SCA CUL-2, *Human Remains – Discovery During Construction*, be incorporated into all projects; both SCA's adequately replace other 2009 EIR mitigation measures pertaining to prehistoric or historic subsurface cultural resources, human remains, or paleontological resource discoveries.

8.5.3 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2009 EIR considered throughout this analysis, the proposed Project would not result in any more severe significant impacts to cultural resources identified in the 2009 EIR, nor would it result in new significant impacts related to cultural resources that were not identified in the 2009 EIR. Implementation of **2009 EIR Mitigation Measure E.1a** ***(Cultural Resource Evaluation)***; **2009 EIR Mitigation Measure E.1b** ***(Environmental Training)***; in addition to **SCA CUL-1,** ***Archaeological and Paleontological Resources – Discovery During Construction***; and **SCA CUL-2,** ***Human Remains – Discovery During Construction*** (all stated fully in Attachment A) would further ensure that potential impacts associated with cultural resources would be less than significant. No additional mitigation measures are required.

F. Geology and Soils; Mineral Resources

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous EIR	Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR	New Significant Impact
Geology, Soils, and Geohazards: a. Expose people or structures to substantial risk of loss, injury, or death involving: 1. 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; 2. Strong seismic ground shaking; 3. Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse; or 4. Landslides;	☒	☐	☐
b. Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007, as it may be revised), creating substantial risks to life or property; result in substantial soil erosion or loss of topsoil, creating substantial risks to life, property, or creeks/waterways.	☒	☐	☐
c. Be located above a well, pit, swamp, mound, tank vault, or unmarked sewer line, creating substantial risks to life or property; 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 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.	☒	☐	☐
Mineral Resources: d. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.	☒	☐	☐
Note: Thresholds regarding paleontological resources are addressed under Section E, *Cultural and Historic Resources*.			

8.6.1 2009 EIR Findings

The 2009 EIR identified less than significant impacts (with implementation of mitigation measures) regarding the potential for the Approved Project to expose people or structures to geologic hazards characterizing the Approved Project site, of which Estuary Park is part. These included exposure to seismic ground shaking (Impact F.1), liquefaction and

earthquake-induced settlement (Impact F.2), ground surface settlement (Impact F.3), settlement and subsidence due to use of dredged materials as fill (Impact F.4), and erosion and loss of top soils, including due to wave action, wind, or rain (Impact F.5). A series of mitigation measures requiring regulatory compliance with the California Building Code, the California Geological Survey's Geology (CGS) Guidelines, the State Dredged Material Management Office, as well as the preparation and implementation of engineering recommendations in site-specific geotechnical investigations and reports prepared reduced these potentially significant impacts to less than significant.

The 2009 EIR also identified less than significant impacts (no mitigation measures required) since site conditions do not include expansive soils, risk of landslides, or surface fault rupture (Impact F.6), and unknown subsurface geologic hazards (Impact F.7). Cumulative conditions pertaining to geology, soils and were identified a less than significant (no mitigation required) (Impact D.8). Mineral resources were discussed in this section of the 2009 EIR, finding no impact; the Project site is mapped within an area where no significant mineral deposits are present (Stinson et al., 1982).

8.6.2 Project Analysis

8.6.2.1 Geology, Soils, and Seismicity; (Criteria F.a and F.c); Mineral Resources (Criterion F.d)

The proposed Project would consist of approximately 55,625 square feet of shoreline (#1), an approximately 1,850 square foot restroom/shower facility, approximately 243,000 square feet of park space, approximately 47,500 square feet of concrete paved area, and approximately 454,000 square feet of asphalt paved area. The Project includes the same geographic area analyzed in the 2009 EIR. Also, the new proposed improvements compared to those considered for Estuary Park in the 2009 EIR will involve the same construction activities, as described under D., *Hydrology and Water Quality* (Section 8.4.2), in this Checklist. Therefore, the proposed Project would not result in any new impacts or warrant new mitigation measures. All measures in the 2009 EIR (stated fully in Attachment A) may still apply to the proposed Project. These include the following 2009 EIR Mitigation Measures for preparation and compliance with design-level and site-specific geotechnical investigations to address seismic shaking, liquefaction, and settlement: Mitigation Measure F.1 *(Site Geotechnical Investigation)*; Mitigation Measure F.2 *(Building Site Geotechnical Investigation);* and Mitigation Measure F.3 (*Standard Geotechnical Practices);* and Mitigation Measure F.4 (*Dredge Permitting*), which all address permits required in case dredged material is used as fill and subject to settlement and subsidence. 2009 EIR Mitigation Measure F.5 *(Permitting)* (which is the same as 2009 EIR Mitigation Measure D.1 regarding compliance with all regulatory requirements and agencies, including an Oakland Creek Permit, to address the loss of top soil) may also apply. Since the 2009 EIR, the City requires adherence to several SCAs that further address issues of geology, soils, and seismicity: SCA GEO-1, *Construction-Related Permit(s)*; SCA GEO-2, *Seismic Hazard Zone (Landslide/Liquefaction)*; SCA HYD-3, Erosion and Sedimentation

Control Plan for Construction; and SCA HYD-4, State Construction General Permit. No additional mitigation measures are required.

8.6.3 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2009 EIR, the proposed Project would not result in any new or more significant impacts related to geology and soils than those identified in the 2009 EIR. Implementation of 2009 EIR **Mitigation Measure F.1** ***(Site Geotechnical Investigation)***; **Mitigation Measure F.2** ***(Building Site Geotechnical Investigation)***; **Mitigation Measure F.3 (*Standard Geotechnical Practices)***; **Mitigation Measure F.4** ***(Dredge Permitting)***; and **Mitigation Measure F.5** ***(Permitting)*** will apply to the proposed Project. Those 2009 EIR mitigation measures, combined with newly added **SCA GEO-1, Construction-Related Permit(s)**; **SCA GEO-2**, ***Seismic Hazard Zone (Landslide/Liquefaction)***; **SCA HYD-3**, ***Erosion and Sedimentation Control Plan for Construction***; **SCA HYD-4,** ***State Construction General Permit*** (all fully stated in Attachment A) would ensure that potential impacts associated with hazardous geologic and soils conditions would be less than significant. No mitigation measures are required. No further analysis is warranted.

G. Noise

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous EIR	Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR	New Significant Impact
a. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding construction noise, except if an acoustical analysis is performed that identifies recommend measures to reduce potential impacts. During the hours of 7 p.m. to 7 a.m. on weekdays and 8 p.m. to 9 a.m. on weekends and federal holidays, noise levels received by any land use from construction or demolition shall not exceed the applicable nighttime operational noise level standard; Generate noise in violation of the City of Oakland nuisance standards (Oakland Municipal Code Section 8.18.020) regarding persistent construction-related noise;	☒	☐	☐
b. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding operational noise;	☒	☐	☐
c. 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);	☒	☐	☐
d. 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); Expose the project to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan after incorporation of all applicable Standard Conditions of Approval; 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]); or	☒	☐	☐
e. 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).	☒	☐	☐

8.7.1 2009 EIR Findings

The 2009 EIR identified two significant and unavoidable noise impacts. First, construction noise levels, particularly from pile driving activities, could be above existing noise levels in the area and could exceed the City's Noise Ordinance standards, adversely affecting noise-sensitive uses (Impact G.1). The impact would remain significant even with the incorporation of mitigation measures addressing construction timing, best available noise control techniques and specific noise attenuation measures. Also significant and unavoidable was an impact resulting from the introduction of multifamily residential uses and public parks in a noise environment that exceeds what is "normally acceptable" for that use, according to the City's Noise Element of the General Plan (Impact G.4). The analysis specified the primary noise sources as the Embarcadero and I-880 freeway to the north of the Approved Project site.

The 2009 EIR also identified less than significant impacts (with implementation of mitigation measures) regarding the combined traffic and operational noise levels exceeding the Oakland Noise Ordinance (Impact G.2), as the impact of land use noise compatibility (Impact G.3) with the City's Noise Element; the impact considered the introduction of multifamily residential uses in a noise environment that exceeds what is "normally acceptable" for that use. Cumulative traffic noise (Impact G.5) was determined to be less than significant (no mitigation measure required).

8.7.2 Project Analysis

The proposed Project would result in the construction of recreational and open space related land uses over approximately 11 acres of area that is part of the Approved Project, west of Lake Merritt Channel and analyzed in the 2009 EIR. The proposed Project would consist of approximately 55,625 square feet of shoreline (#1), an approximately 1,850 square foot restroom/shower facility, approximately 243,000 square feet of park space, approximately 47,500 square feet of concrete paved area, and approximately 454,000 square feet of asphalt paved area. The proposed Project site and the proposed improvements described in Section 4.0 (*Project Description*) and depicted in Figure 4 are within the broader development assumptions of the Approved Project and thus within the impact envelope of the maximum development program analyzed in the 2009 EIR.

8.7.2.1 Construction Noise and Vibration (Criteria F.a and F.e)

Construction Noise

Construction activities for the proposed Project are expected to occur over approximately 18 months and would entail grading and site preparation, building construction, and paving. Pile driving would not occur, however other operation of heavy-duty construction equipment would generate noise and temporarily elevate ambient noise levels at sensitive receptors in the vicinity. The closest sensitive receptors to the Project site reside at the Portobello/Embarcadero West apartment complex adjacent to the western boundary of the Project site. Therefore, receptors are located as close as 15 feet from Project construction areas involving grading and excavation.

Similar to 2009 EIR Mitigation Measures G.1a through G.1d, implementation of applicable SCAs that the City established after preparation of the 2009 EIR would minimize construction noise by limiting hours of construction activities, requiring best available noise control technology, and by tracking and responding to noise complaints. Specifically, proposed Project construction would comply with the following SCAs: SCA NOI-1, *Construction Days/Hours*, which limits construction hours mirroring the City's Noise Ordinance requirements; SCA NOI-2, *Construction Noise*, which requires projects to implement construction noise reduction measures; and SCA NOI-3, *Extreme Construction Noise*, which requires the Project Applicant to prepare a Construction Noise Management Plan (CNMP) for City review and approval. The CNMP would identify site-specific noise attenuation measures to reduce impacts and a notification program to property owners and occupants located within 300 feet of the construction activities.

Although pile driving is not proposed as part of the Project, due to the proximately of sensitive receptors to Project-related grading and excavation activities, the resultant noise levels at the receptors would exceed 90 dBA, and SCA NOI-3, would apply. Taken together, SCA NOI-1 through SCA NOI-3 would appropriately supersede 2009 EIR Mitigation Measures G.1a through G.1d. Incorporation of the aforementioned SCA NOI-1 through SCA NOI-3 would ensure the proposed Project's construction noise levels at nearby noise-sensitive receptors are reduced to less than significant. While the 2009 EIR identified a significant and unavoidable impact resulting from the proposed use of pile driving, the effect associated with the proposed Project would be less than significant severe and less than significant than significance since no pile driving will be used. No mitigation measures are required.

Construction Vibration

The proposed Project would involve construction activities that include the use of heavy off-road equipment to perform earthwork and construction. As discussed above, pile driving is not proposed for construction of the proposed Project. The nearest structure is the Portobello/Embarcadero West apartment complex at a distance of 15 feet west from the property line. At this distance, vibration from earthmoving equipment could be perceptible. Therefore, SCA NOI-4, *Vibration Impacts on Adjacent Structures or Vibration-Sensitive Activities*, which requires the Project Applicant to prepare a Vibration Analysis, superseding 2009 EIR Mitigation Measure G.1b, would apply to the Project and would reduce the Project's construction vibration impact to less than significant, same as the conclusion of the 2009 EIR.

8.7.2.2 Operational Noise and Vibration (Criteria G.b, G.c, and G.e)

Noise from Project Stationary Sources

The 2009 EIR concluded that operational noise impacts from truck loading and unloading activities as well as HVAC systems on project buildings would result in a less than significant level with the implementation of Mitigation Measure G.2 *(Operational Noise)*. Once operational, the proposed Project would include recreational and open space uses including a multi-use lawn, picnic areas, shoreline access, pavement and walking paths

throughout the Project areas, public restrooms, and a parking lot. The Project does not propose or require loading docks, HVAC equipment, or a backup generator. Therefore, there would be no stationary-source related noise impacts from Project operation. This impact of the proposed Project would be less than significant, reduced from the impact identified in the 2009 EIR. No mitigation measures are required.

Traffic Noise

For operational noise impacts from Project-related traffic increase, the analysis relies on consistency of the Project's vehicle trip generation with what was assumed for the Approved Project in the 2009 EIR.

In the 2009 EIR, modeled Existing Plus Project traffic noise levels and Cumulative Plus Project noise levels were compared with modeled Existing traffic noise levels (2010) as the baseline. This method of analysis is conservative (overestimated) because the actual noise environment includes other, non-vehicle sources that typically result in higher ambient noise levels. Using this conservative methodology, the impact from increased traffic noise and cumulative traffic noise in the Approved Project area was identified as less than significant in the 2009 EIR.

The proposed Project includes the same land uses and intensity of development for the Project site as was analyzed in the 2009 EIR. While the Park is not considered a substantial trip generator, vehicle trip generation associated with new improvements to the Park would be consistent with that considered in the 2009 EIR. Consequently, the operational traffic noise levels with the changes to the Approved Project would also be similar to that analyzed in the 2009 EIR. Therefore, the proposed Project would also result in a less-than-significant impact traffic noise impact, same as the 2009 EIR.

Operational Vibration

The 2009 EIR did not analyze operational vibration impacts. The proposed Project would not include any operational sources that would generate vibration that would be perceptible to adjacent receptors. Therefore, the proposed Project would not result in any vibration-related impacts.

8.7.2.3 Noise Exposure/Compatibility (Criterion G.b)

The proposed Project would not include any land uses that would be subject to the 45 dBA interior noise standard per California Noise Insulation Standards (CCR Part 2, Title 24). Oakland's land use compatibility guidelines specify the community ambient noise level that would be considered "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable" for various uses. The 2009 EIR identified a significant noise impact with respect to the compatibility of the land uses proposed for the Brooklyn Basin as a whole based on ambient noise levels monitored. The impact was concluded to be significant and unavoidable as no feasible mitigation measures were found to be available to reduce this impact to a less than significant level. Based on noise measurements in the 2009 EIR, the noise environment would be in the "normally acceptable" range for playground uses. Consequently, the Project would result

in a less-than-significant impact with respect to exposure of Project receptors to excessive noise levels, this impact would be less than that identified in the 2009 EIR.

8.7.3 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2009 EIR, implementation of the proposed Project would not substantially increase the severity of impacts identified in the 2009 EIR, nor would it result in new significant impacts related to noise that were not identified in the 2009 EIR. Implementation of **SCA NOI-1,** ***Construction Days/Hours***; **SCA NOI-2,** ***Construction Noise***; **SCA NOI-3,** ***Extreme Construction Noise***; and **SCA NOI-4,** ***Vibration Impacts on Adjacent Structures or Vibration-Sensitive Activities***, (all stated fully in Attachment A) would be applicable and would be implemented with the proposed Project. Implementation of these SCAs would ensure that noise-related impacts associated with the proposed Project would be less than significant. No mitigation measures are required.

H. Hazards and Hazardous Materials

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous EIR	Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR	New Significant Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; 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; Create a significant hazard to the public through the storage or use of acutely hazardous materials near sensitive receptors; 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;	☒	☐	☐
b. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;	☒	☐	☐
c. 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; or Fundamentally impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	☒	☐	☐
d. 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; or 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.	☒	☐	☐
e. 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.	☒	☐	☐

NOTE: Changes shown to 2009 EIR thresholds due to subsequent changes in State CEQA Guidelines and/or Oakland CEQA Thresholds.

8.8.1 2009 EIR Findings

The 2009 EIR identified less than significant impacts (with implementation of mitigation measures) regarding documented contaminants on the Approved Project site, of which Estuary Park is a part. These included the potential for the handling of existing contaminants during various construction phases to create significant hazards to the public or the environment (Impact H.1). Comprehensive mitigation measures involving the preparation and implementation of a cleanup plan for the contaminated soil and groundwater, approved by the appropriate regulatory agencies, DTSC and RWQCB. Additional mitigations direct the adequate stockpiling and sampling onsite of excavated soils to determine appropriate reuse or disposal offsite, the proper containment and transport offsite of groundwater from dewatering, and preparation and implementation of a Sampling and Analysis Plan (SAP), pursuant to the Corps of Engineers and DMMO, to guide sediment removal from dredged material.

The analysis also identified the potential for the Approved Project to disturb and release hazardous structural and building components during various construction phases, exposing workers, the public, or the environmental to adverse conditions requiring mitigation (Impact H.2). The 2009 EIR also identified the use of construction management practices as mitigation to minimize the potential release of hazardous materials onsite due to improper handling or storage during construction (Impact H.3). Additional mitigation measures involve preparation of a pre-demolition asbestos survey and a lead-based paint abatement plan which reduced these potentially significant impacts to less than significant.

8.8.2 Project Analysis

8.8.2.1 Hazardous Conditions and Construction period Releases (Criterion H.a)

The 2009 EIR analyzed the need for remediation in areas throughout the 64-acre Approved Project site. As introduced in Section 4.0 (*Project Description*), documented soil, groundwater, and soil gases contaminants exist in areas of the Project site, primarily related to former industrial uses onsite.

Contaminants, Remediation Plans and Implementation

In accordance with 2009 EIR Mitigation Measure H.1a (*Cleanup/Health and Safety Plan*); Mitigation Measure H1.b (*Soil Classification*); Mitigation Measure H.1c (*Soil Reuse/Disposal*); and Mitigation Measure H.1d (*Groundwater*), phased remediation is underway, in accordance with a DTSC-approved process. The impacted areas in Estuary Park are located primarily in the north, west and south areas of the Park, including near the south shoreline. In soil, elevated levels of petroleum hydrocarbons and possible free-phase hydrocarbon product ("FHP"), petroleum hydrocarbons ("TPH"), and metals were detected in isolated locations of Estuary Park.[13] Groundwater investigations also

[13] EKI, 2017.

documented TPH and metals. Subsurface soil gases are primarily the result of naturally-occurring biologic activity in the Young Bay Muds.

Separate from, but supportive of, the proposed Project to improve and expand Estuary Park, the developer of the Brooklyn Basin Project (Approved Project) is conducting environmental remediation on parts of the Project site. The cleanup is underway as Phase 1A of the Approved Project.

Upland Clean-Up, Separate from Proposed Project

Remediation is being conducted pursuant to an "Implementation Plan for the Remediation of Estuary Park" ("IP") (updated 2023), under regulatory oversight of the California Environmental Protection Agency and lead oversight by DTSC. In 2017, the Brooklyn Basin Project developer drafted a phased remediation process and plan referred to as the draft "Implementation Plan for the Remediation of Estuary Park" ("IP"). The 2017 draft IP was subsequently updated in 2023 through a negotiated agreement between the City and the developer. Site conditions were appropriately disclosed, and mitigation measures adopted to address hazardous materials conditions in the 2009 EIR. A primary goal of the updated IP is coordination of its excavation, fill placement, and rough grading to align with the design contours and finished elevations for the Estuary Park improvements. The updated IP proposes excavation at 3 locations and will involve excavation to depths between 4 and 10 feet below ground surface (bgs). Additional excavation may be warranted at the location of a former underground storage tank (UST) along the northwestern part of the site. Approximately 2 feet of clean fill will be placed over the majority of the Project site, using clean soil sourced from various areas of the Project site and underlain by clean soil from other areas of the site, helping to raise grades where needed for final Park design elevations where necessary and minimize off-haul and disposal of site soil. The updated IP proposes to address impacted groundwater to achieve project-specific groundwater remediation goals and apply engineering controls to reduce potential exposure posed by vapor intrusion.

The 2023 updated IP considers areas where the proposed Park improvements will retain or introduce new hardscape areas: the repaved JLAC Parking Lot (#2), refurbished LH&A-designed Trellis Area (#13) and east bulkhead steps, in addition to planned hardscape improvements (new Parking Lot (#2), repaved EVA and Fire Access Route (Section 4.5.2.19 and #3), and the Gathering Plaza (#12). These retained and planned hardscape areas would not require the 2 feet of fill. Instead, these areas would not be filled, or be filled only to the depth necessary for the structural fill of subgrades in anticipation of the final finish grades of the hardscape areas of the Park. The City will close Estuary Park to the public (except the JLAC) during the remediation work.

The updated IP calls for the introduction of fill in the future planting areas of the Park, which include the expanded/improved multi-use lawn and landscaped areas along the north and west edges of the site. The updated IP also ensures that the existing EVA along the western edge of the site is maintained during work, and that necessary stormwater

management is provided. A cover crop will be implemented for erosion control and in a seed mix specified by the City.

South Shoreline Clean-Up

Material at the south shoreline area is within the updated IP area proposed for the placement of clean fill and, consistent with prior investigations and findings disclosed in the 2009 EIR, has the potential to be contaminated. Because materials would be altered as part of the proposed Resilient Shoreline improvements (#1), the 2 feet of fill as part of the developer-updated IP described above would not be placed before the shoreline improvements. Instead, excavation associated with the Resilient Shoreline improvements will be controlled.

As described above for the upland areas, excavated material from specific areas of the south shoreline will be placed in segregated stockpiles onsite so that testing of each stockpile can be conducted to assess whether contamination is present. The excavated materials will either be reused appropriately onsite or will be exported and disposed of at an acceptable facility.

Other 2009 EIR Mitigation Measures

As discussed in D., *Hydrology and Water Quality* (Section 8.4.2), the proposed Project does not propose dredging, however, 2009 EIR Mitigation Measure H.1e *(Dredge Sampling)* regarding guidance for dredging material from Clinton Basin, is conservatively maintained, in case dredging is necessary. Existing materials on the proposed Project site that would be demolished or excavated for construction are limited to existing hardscape and landscaping area. No existing buildings exist to be demolished. However, 2009 EIR Mitigation Measure H.2a *(ACM Survey)*; Mitigation Measure H.2b *(LBP Survey)*; Mitigation Measure H.2c *(PCB Survey)*; and 2009 EIR Mitigation Measure H.3 *(Construction BMPs-Hazards)* would be maintained for the proposed Project to ensure other construction period effects regarding hazardous materials are mitigated to less than significant. Also, 2009 EIR Mitigation Measure H.2d *(Underground Storage Tanks)* will also be maintained in case unidentified USTs are encountered during construction. Since the 2009 EIR, the City adopted SCA HAZ-1, *Hazardous Materials Related to Construction*, that aligns with construction period mitigation measures and that will newly apply to the proposed Project. No new mitigation measures are required to address the proposed Project.

8.8.2.2 Proximity to one-quarter mile of an existing or proposed School; Emergency Access / Evacuation Plan; Airport Land Use Plan /Airstrip (Criteria H.b through H.d)

No changes have occurred regarding the location of existing or proposed schools nearby, the location or configuration of emergency access or evacuation, or the location of private airstrips or an airport land use plan since preparation of the 2009 EIR. The proposed improvements with the proposed Project do not result in changes to the no impact findings in the 2009 EIR.

8.8.2.3 Exposure to Wildland Fires (Criterion H.e)

Not considered in the 2009 EIR, however, the Project site is located within a fully urbanized area and therefore not within an area of wildfire risk - the nearest boundary of which is located approximately 3 miles northeast of the Project site, north of Interstate 580 (see Figure 1).

8.8.3 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2009 EIR, the proposed Project would not result in any new or more severe significant impacts related to hazards and hazardous materials than those identified in the 2009 EIR. Implementation of **2009 EIR Mitigation Measure H.1a** ***(Cleanup/Health and Safety Plan)***; **Mitigation Measure H1.b** ***(Soil Classification)***; **Mitigation Measure H.1c** ***(Soil Reuse/Disposal);*** **Mitigation Measure H.1d** ***(Groundwater);*** **Mitigation Measure H.1e** ***(Dredge Sampling);*** **;Mitigation Measure H.2a** ***(ACM Survey);*** **Mitigation Measure H.2b** ***(LBP Survey);*** **Mitigation Measure H.2c** ***(PCB Survey);*** **Mitigation Measure H.2d** ***(USTs)*** ; and **2009 EIR Mitigation Measure H.3** ***(Construction BMPs-Hazards)***; in addition to newly added **SCA HAZ-1**, ***Hazardous Materials Related to Construction***, (all stated fully in Attachment A) would ensure that potential impacts to hydrology and water quality would be less than significant. No additional mitigation measures are required. No further analysis is warranted.

I. Biological Resources

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous EIR	Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR	New Significant Impact
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; 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 Game or U.S. Fish and Wildlife Service; Have a substantial adverse effect on federally 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; 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;	☒	☐	☐
b. Fundamentally conflict with the City of Oakland Tree Protection Ordinance (Oakland Municipal Code [OMC] Chapter 12.36) by removal of protected trees under certain circumstances; or Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources.	☒	☐	☐

8.9.1 2009 EIR Findings

The 2009 EIR identified less than significant impacts related to biological resources with the implementation of mitigation measures. The 2009 EIR found less than significant impacts with regard to special-status species, riparian habitat or sensitive natural communities, the movement of fish or wildlife or wildlife corridors, native wildlife nursery sites, and adopted Habitat Conservation Plans. No new sensitive wildlife or fish are expected to occur in the Project area that has not already been analyzed in the 2009 EIR (CNDDB, 2023, CNPS, 2023, USFWS, 2003).

With implementation of mitigation measures, the 2009 EIR also identified less than significant impacts on special-status mammal species, potentially jurisdictional wetlands or waters of the U.S. under the jurisdiction of the Corps, waters of the state under the jurisdiction of the Regional Water Quality Control Board (RWQCB), and wetlands under the jurisdiction of BCDC jurisdiction, fisheries resources, nesting habitat for breeding

raptors and passerine birds, roosting bats, and habitat modifications of sensitive biological resources. The 2009 EIR found that the Approved Project would not adversely affect biological resources governed by the City's Tree Preservation or Removal Ordinance. The 2009 EIR also determined that construction activity and operations, in conjunction with other past, present, pending and reasonably foreseeable development in the Estuary Channel area, Lake Merritt, and central San Francisco Bay, would not result in impacts on special-status species, wetlands, and other waters of the U.S.

8.9.2 Project Analysis

The Project site is located in a fully developed urban area of the City and is largely comprised of landscaping elements, recreational facilities, and open space, including the central San Francisco Bay.

The proposed Project would consist of approximately 55,625 square feet of shoreline (#1), an approximately 1,850 square foot restroom/shower facility, approximately 243,000 square feet of park space, approximately 47,500 square feet of concrete paved area, and approximately 454,000 square feet of asphalt paved area. Proposed Master Plan improvements that could affect biological resources in the Project area include, shoreline improvements affecting special-status aquatic species and jurisdictional Bay waters; trimming or removal of trees and shrubs potentially supporting nesting bird habitat and roosting bat habitat, and potentially conflicting with the City's Tree Preservation or Removal Ordinance; and increased bird-building collisions or site lighting potentially affecting sensitive biological resources directly or through habitat modification or wildlife corridors.

Construction of the new sand and gravel pocket beach and shoreline improvements could have adverse impacts on incidental occurrences of special-status aquatic species, including fish and marine mammals, through the temporary disturbance of the aquatic environment during construction. The placement of coarse materials (ex. gravel, coarse sand) related to beach installation may cause temporary increases in suspended sediments. Suspended sediments in the water column can lower levels of dissolved oxygen, increase salinity, increase concentrations of suspended solids, and possibly release chemicals present in the sediments into the water column. However due to the large particle size of the material to be placed, any water quality impacts will be minimal, localized, and of brief duration. Additionally, implementation of Mitigation Measure I.2d *(BMPs)* and Mitigation Measure I.3 *(Protection of Fish and Migrating Salmonids),* would ensure that any impacts on aquatic habitat are minimized.

The jurisdictional Bay waters within the Project's work area would be adversely affected during the construction of the new sand and gravel pocket beach and upland transitional zone through increased sedimentation and degraded water quality. Further, the shoreline improvements would result in permanent loss or coverage of Bay waters through conversion of waters to sand and gravel beach. These impacts would be mitigated to less than significant levels with the implementation of 2009 EIR Mitigation Measures I.2a

through I.2e, which address the Project's overall shoreline protections and the requirement for additional wetland creation or enhancement; these included 2009 EIR Mitigation Measure I.2a (*Corps-Verified Wetland Delineation);* Mitigation Measure I.2b (*Wetland Avoidance);* Mitigation Measure I.2c *(Obtain Regulatory Permits and other Agency Approvals)*; Mitigation Measure I.2d *(BMPs)*; and Mitigation Measure l.2e *(Compensatory Mitigation).* Associated permits and certifications will include those from BCDC, the SFRWQCB, USACE, as well as a City Creek Permit. The Project would also comply with SCAs relating to stormwater runoff from construction and operation including SCA HYD-3, *Erosion and Sedimentation Control Measures for Construction*; SCA HYD-4, *State Construction General Permit*; and SCA HYD-5, *NPDES C.3 Stormwater Requirements for Regulated Projects* (see Section D., *Hydrology and Water Quality*, above). Each of these mitigation measures and SCAs contributes to protection and health of waterways, including the San Francisco Bay.

Potential impacts relating to nesting bird habitat as the result of tree trimming or removal would be reduced to a less than significant level with the implementation of current SCA BIO-2, *Tree Removal During Bird Breeding Season,* which replaces 2009 EIR Mitigation Measure I.4a *(Timing of Construction)* and Mitigation Measure I.4b *(Preconstruction Surveys).* SCA BIO-3, *Tree Permit,* will also apply to the proposed Project. Implementation of these measures and SCAs would avoid and protect common and special-status nesting birds in trees, if present, during the nesting season and require the Project to obtain, and implement the conditions of, a City-issued tree permit.

Potential impacts relating to direct impact or habitat modification of roosting bats as the result of tree removal would be reduced to a less than significant level with the implementation 2009 EIR Mitigation Measure I.5 *(Roosting Bat Survey).* Seasonal avoidance and temporary and permanent bat roosting structures would be provided, if active roosts are determined to be present in a tree identified for removal.

The new boat storage facility is not expected to substantially increase the potential for bird-building collisions, substantially interfere with the movement of native or migratory wildlife, or adversely affect sensitive biological resources directly, through habitat modification due to the limited use of glass programmed in the structure's conceptual design and the incorporation of mandatory light pollution measures in SCA AES-4, *Lighting,* and SCA BIO-1, *Bird Collision Reduction Measures*. These SCAs would reduce the potential for bird-building collisions to the maximum extent feasible by requiring the proposed Project to submit a Bird Collision Reduction Plan for City review and approval, if applicable. The Plan would protect birds and sensitive habitat from light pollution 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. Therefore, the proposed Project would not cause an adverse impact to nesting birds or other sensitive biological resources from light or glare.

Although the proposed Project proposes new and replacement trees (estimated 36 removals and 107 new), a portion of the existing trees identified for removal may qualify

as protected trees per the City of Oakland Protected Trees Ordinance. These trees throughout the Project site are not connected to other nearby natural habitats, and therefore would not constitute a wildlife corridor. SCA BIO-3, *Tree Permit*, would ensure the Project Applicant would obtain a tree permit and abide by the conditions of that permit per the City's Tree Protection Ordinance. As such, the proposed Project would not adversely affect biological resources governed by the City's Tree Preservation or Removal Ordinance.

8.9.3 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2009 EIR, implementation of the Project would not substantially increase the severity of significant impacts identified in the 2009 EIR, nor would it result in new significant impacts related to biological resources that were not identified in the 2009 EIR. The measures from the 2009 EIR would continue to apply to the proposed Project: **Mitigation Measure I.2a (*Corps-Verified Wetland Delineation);* Mitigation Measure I.2b (*Wetland Avoidance);* Mitigation Measure I.2c *(Obtain Regulatory Permits and other Agency Approvals)*; Mitigation Measure I.2d *(BMPs)*;** and **Mitigation Measure l.2e *(Compensatory Mitigation)*;** and **Mitigation Measure I.5 (*Roosting Bat Survey)*** (all stated fully in Attachment A). Also, **SCA AES-4, *Lighting;* SCA BIO-1, *Bird Collision Reduction Measures*; SCA BIO-2, *Tree Removal During Bird Breeding Season*; SCA BIO-3, *Tree Permit*; SCA HYD-3, *Erosion and Sedimentation Control Measures for Construction*; SCA HYD-4, *State Construction General Permit*;** and **SCA HYD-5, *NPDES C.3 Stormwater Requirements for Regulated Projects*,** (all stated fully in Attachment A) would be applicable to and would be implemented by the Project. Together with the 2009 EIR mitigation measures relative to biological resources, the SCAs would further reduce impacts related to biological resources to less than significant levels. No additional mitigation measures are required. No further analysis is warranted.

CDFW 2021. California Natural Diversity Database (CNDDB) Rarefind version 5 query of the Oakland West, Oakland East, Hunters Point, and San Leandro USGS 7.5-minute topographic quadrangles, Commercial Version, accessed August 21, 2023.

California Native Plant Society (CNPS), Inventory of Rare and Endangered Plants for Oakland West, Oakland East, and San Leandro USGS 7.5-minute topographic quadrangles, http://www.rareplants.cnps.org/, accessed August 21, 2023.

U.S. Fish and Wildlife Service (USFWS), 2023. My Project, IPaC Trust Resource Report and Official Species List of Federally Endangered and Threatened Species that may occur in the Oakland Estuary Park Renovation and Expansion Project Study Area location, and/or may be affected by the proposed project, August 22, 2023.

J. Population and Housing

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous EIR	Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR	New Significant Impact
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 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 Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element. ~~Displace substantial numbers of businesses and jobs, necessitating the construction of replacement facilities elsewhere, in excess of that contemplated in the City's General Plan; or displace businesses and jobs, increasing distances traveled between industrial uses and the markets they serve~~ ~~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.~~.	☒	☐	☐

NOTE: Changes shown to 2009 EIR thresholds due to subsequent changes in State CEQA Guidelines and/or Oakland CEQA Thresholds.

8.10.1 2009 EIR Findings

The 2009 EIR identified less than significant (no mitigation measures required) impacts regarding the Approved Project's potential to displace existing businesses and jobs (Impact J.2), or induce substantial population growth through new housing or infrastructure improvements (Impact J.3), not contemplated in the General Plan (Impact J.4), or through business/employment growth (Impact J.5). Cumulative population and housing impact was also determined to be less than significant (no mitigation measure required) (Impact J.6). The Approved Project site, of which Estuary Park is a part, had no impact regarding the displacement of existing housing, since no housing existed on the site (Impact J.1). No mitigation measures were identified.

8.10.2 Project Analysis

The proposed Project includes the same geographic area as analyzed in the 2009 EIR, and no changes have occurred to that area since then, except for demolition of the previously

vacant warehouse structure in the northwest corner of the proposed Project site. Also, the new proposed improvements involve address parks and open space Elements, therefore there is no potential to generate substantially growth or other population and housing impacts. None of the 2009 EIR impacts apply. No mitigation measures are required.

8.10.3 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2009 EIR, the proposed Project would not result in any new or more severe significant impacts related to population and housing than those identified in the 2009 EIR. No mitigation measures are required. No further analysis is warranted.

K. Aesthetics

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous EIR	Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR	New Significant Impact
a. Have a substantial adverse effect on a public scenic vista; substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, located within a state or locally designated scenic highway; substantially degrade the existing visual character or quality of the site and its surroundings; or create a new source of substantial light or glare which would substantially and adversely affect day or nighttime views in the area;	☒	☐	☐
b. 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); ~~or 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;~~	☒	☐	☐
c. ~~Cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space; or, cast shadow on an historical resource, as defined by CEQA Guidelines Section 15064.5(a), such that the shadow would materially impair the resource's historic significance~~;	☒	☐	☐
d. 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.	☒	☐	☐

NOTE: Changes shown to 2009 EIR thresholds due to subsequent changes in State CEQA Guidelines and/or Oakland CEQA Thresholds. Also, the 2009 EIR addressed *Wind* impacts under *Air Quality* (Section "C." of this Checklist.

8.11.1 2009 EIR Findings

The 2009 EIR identified less than significant (no mitigation measures required) and beneficial impacts regarding the Approved Project's potential to affect existing visual quality and visual character resulting from the substantial demolition of the Ninth Avenue Terminal (Impact K.1), scenic vistas (Impact K.2), and light and glare (Impacts K.3 and K.4). Also, a cumulative aesthetics impact was determined to be less than significant (Impact K.5). No mitigation measures were identified.[14]

[14] The 2009 EIR addressed the potential wind hazards impacts under K., *Air Quality*.

8.11.2 Project Analysis

The proposed Project includes the same geographic area as analyzed in the 2009 EIR, and no changes have occurred to that area since then, except for demolition of the previously vacant warehouse structure in the northwest corner of the proposed Project site. The proposed Project would consist of approximately 55,625 square feet of shoreline (#1), an approximately 1,850 square foot restroom/shower facility, approximately 243,000 square feet of park space, approximately 47,500 square feet of concrete paved area, and approximately 454,000 square feet of asphalt paved area. Also, the proposed improvements do not involve the construction of tall new buildings or introduce substantially more lighting than considered with the Approved Project in the 2009 EIR. Vertical structures proposed include the new approximately 1,850 square-foot public restroom/boating program showers building (#7), which would be no taller than one story, typical of public restroom facilities provided in parks throughout the City. The proposed new, open-air boat storage (#15) and all other new, upgraded, or replacement structures, such those associated with the East Promenade (#11) and Natural Play Elements (#9) for example would be compatible with the existing character of the Park and surroundings. No new improvements would occur to adversely affect aesthetics. No mitigation measures are required.

Since the 2009 EIR, the City adopted several SCAs that will newly apply to the proposed Project to address potential aesthetics considerations and ensure potential impacts are less than significant. These include SCA AES-1, *Trash and Blight Removal*; SCA AES-2, *Graffiti Control*; SCA AES-3, *Landscape Plan*; SCA AES-4, *Lighting*; and SCA REC-1, *Access to Parks and Open Space* (each fully stated in Attachment A) will ensure potential impacts are less than significant.

8.11.3 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2009 EIR, the proposed Project would not result in any new or more severe significant impacts related to aesthetics than those identified in the 2009 EIR. Implementation **SCA AES-1, *Trash and Blight Removal*; SCA AES-2, *Graffiti Control*; SCA AES-3, *Landscape Plan*; SCA AES-4, *Lighting*;** and **SCA REC-1, *Access to Parks and Open Space*** (each stated fully in Attachment A) by the proposed Project will ensure that aesthetics-related impacts are less than significant. No mitigation measures are required. No further analysis is warranted.

L. Public Services and Recreation

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous EIR	Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR	New Significant Impact
a. Result in substantial adverse physical impacts associated with the provision of new or 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: • Fire protection; • Police protection; • Schools; or • 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 Include recreational facilities or require the construction or expansion of recreational facilities which might have a substantial adverse physical effect on the environment.	☒	☐	☐

8.12.1 2009 EIR Findings

The 2009 EIR identified less than significant (no mitigation measures required) impacts regarding the Approved Project's potential to increase demand, resulting in the need for new or expanded facilities, for police protection services (Impact L.1), fire protection and emergency medical services and facilities (Impact L.2), public schools (Impact L.3), and library services (Impact L.5). Also, a cumulative public services and recreation impact was determined to be less than significant (Impact L.6).

The 2009 EIR also identified a less than significant (no mitigation measures required) impact that was also considered a beneficial effect associated with the creation of new parks and a determination that the construction or expansion of existing facilities would not have an adverse effect on the environment. The analysis also determined that the increased population resulting from the Approved Project would not cause substantial or accelerated physical deterioration (Impact L.4). No mitigation measures were identified.

8.12.2 Project Analysis

As summarized in Table 1 in Section 4.0 (*Project Description*) of this document the new improvements to Estuary Park compared to improvements previously considered in concept in the 2009 EIR include new picnic areas (#6), new approximately 1,850 square-

foot public restroom/boating program showers building (#7), a new dog park (#10), structural reinforcement of the existing trellis (#13), a new open-air boat storage (#15), and the addition of shoreline improvements to Estuary Park's south shore specifically (#1). Therefore, the new improvements to the proposed Project would not cause a substantial increase in population (residents or workers) that could substantially increase the demand for public services or the need for or deterioration of recreation facilities. No mitigation measures are required. Also, since the 2009 EIR, the City adopted SCA REC-1, *Access to Parks and Open Space* (fully stated in Attachment A) that will apply to the proposed Project and ensure the impacts remain less than significant.

8.12.3 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2009 EIR, the proposed Project would not result in any new or more severe significant impacts related to public services and parks and recreation facilities than those identified in the 2009 EIR. Implementation of **SCA REC-1, *Access to Parks and Open Space*** (stated fully in Attachment A), would ensure that potential impacts to public services, parks and recreation would be less than significant. No mitigation measures are required. No further analysis is warranted.

M. Utilities and Service Systems, and Energy

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous EIR	Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR	New Significant Impact
a. Exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board; Require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects; 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;	☒	☐	☐
b. 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;	☒	☐	☐
c. 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; Violate applicable federal, state, and local statutes and regulations related to solid waste;	☒	☐	☐
d. Violate applicable federal, state and local statutes and regulations relating to energy standards; or 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.	☒	☐	☐

8.13.1 2009 EIR Findings

The 2009 EIR identified less than significant (no mitigation measures required) impacts regarding the Approved Project's potential to exceed public utility system capacities or standards. Specifically, the Approved Project would not impact or required mitigation measures for, exceedances of water supplies (Impact M.1), wastewater demand and infrastructure capacity (Impact M.2), stormwater drainage facilities (Impact M.3), and sufficient landfill capacity and adherence to applicable federal, state, or local statutes and

regulations related to solid waste and waste diversion (Impact M.4). The 2009 EIR analysis also identified that the Approved Project would not violate energy regulations and standards, and the impact would be less than significant (Impact M.5). In addition, the cumulative public services and recreation impact was also determined to be less than significant (Impact L.6). No mitigation measures were identified.

8.13.2 Project Analysis

The proposed Project would consist of approximately 55,625 square feet of shoreline (#1), an approximately 1,850 square foot restroom/shower facility, approximately 243,000 square feet of park space, approximately 47,500 square feet of concrete paved area, and approximately 454,000 square feet of asphalt paved area. As discussed in the preceding Section L., *Public Services and Recreation*, the new improvements to Estuary Park compared to improvements previously considered in concept in the 2009 EIR include new picnic areas (#6), new approximately 1,850 square-foot public restroom/boating program showers building (#7), a new dog park (#10), structural reinforcement of the existing trellis (#13), a new open-air boat storage (#15), and (although shoreline improvements were previously analyzed for other parts of the Approved Project) the addition of shoreline improvements on the south shore of Estuary Park specifically (#1). Therefore, the new improvements to the proposed Project would not generate a substantial increase in development or population (residents or workers) that could substantially increase demand for utility infrastructure, the use of public services, or the expedited deterioration of recreation facilities. Also, utility improvements necessary for the proposed Project will include infrastructure extensions (water, sewer, electrical) to the new public restroom/boating program showers building (#7), in addition to as-needed water and electrical connections for new site amenities (lighting, electrical outlets, drinking fountains) – all improvements previously considered in the 2009 EIR. No mitigation measures are required.

Also, since the 2009 EIR, the City adopted several SCAs that support the less than significant impact determinations related to Utilities and Service Systems. Each SCA is fully stated in Attachment A and will apply to the proposed Project and ensure the impacts remain less than significant. These include SCA UTIL-1, *Construction and Demolition Waste Reduction and Recycling*; SCA UTIL-2, *Underground Utilities*; SCA UTIL-3, *Recycling Collection and Storage Space*; SCA UTIL-4, *Sanitary Sewer System*; SCA UTIL-5, *Storm Drain System*; SCA UTIL-6, *Recycled Water*; SCA UTIL-7, *Water Efficient Landscape Ordinance (WELO)*; in addition to SCA HYD-3, *Erosion and Sedimentation Control Plan for Construction*; HYD-4, *State Construction General Permit*; SCA HYD-5, *NPDES C.3 Stormwater Requirements for Regulated Projects*; and SCA REC-1, *Access to Parks and Open Space*.

8.13.3 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2009 EIR implementation of the proposed Project would not substantially increase the severity of

significant impacts identified in the 2009 EIR, nor would it result in new significant impacts related to utilities and service systems that were not identified in the 2009 EIR. The 2009 EIR did not identify any mitigation measures related to utilities and service systems, and none would be required for the proposed Project. Implementation of **SCA UTIL-1,** ***Construction and Demolition Waste Reduction and Recycling***; **SCA UTIL-2,** ***Underground Utilities***; **SCA UTIL-3,** ***Recycling Collection and Storage Space***; **SCA UTIL-4,** ***Sanitary Sewer System*****; SCA UTIL-5,** ***Storm Drain System*****; SCA UTIL-6,** ***Recycled Water*****; SCA UTIL-7, WELO;** in addition to **SCA HYD-3,** ***Erosion and Sedimentation Control Plan for Construction*****; SCA HYD-4,** ***State Construction General Permit***; **SCA HYD-5,** ***NPDES C.3 Stormwater Requirements for Regulated Projects***; and **SCA REC-1,** ***Access to Parks and Open Space***, (all stated fully in Attachment A) will ensure that utilities and service system impacts are less than significant. No mitigation measures are required. No further analysis is warranted.

N. Greenhouse Gas and Climate Change

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous EIR	Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR	New Significant Impact
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.]	NA	☐	☐
b. For a project involving a land use development[15], 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 Checklist,[16] 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.	☒	☐	☐
NOTE: Changes shown to 2009 EIR thresholds due to subsequent changes in State CEQA Guidelines and/or Oakland CEQA Thresholds.			

8.14.1 2009 EIR Findings

While no GHG emissions analysis was conducted in the 2009 EIR, the proposed Project makes 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 the proposed Project, pursuant to CEQA Guidelines Section 15162.

15 For projects that involve both a stationary source and a land use development, calculate each component separately and compare to the applicable threshold.

16 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 Plan Standard Condition of Approval.

8.14.2 Project Analysis

8.14.2.1 Consistency with the 2030 Equitable Climate Action Plan (ECAP) (Criterion N.b)

The City of Oakland evaluates impacts related to GHG emissions through implementation of its *Equitable Climate Action Plan* (ECAP). The City of Oakland has established GHG reduction goals of 56 percent below 2005 levels by 2030 and 83 percent below 2005 levels by 2050, that would be achieved through implementation of the ECAP. These reduction targets are more aggressive than the State's adopted 2030 reduction target of 40 percent below 1990 levels (per SB 32). Therefore, achievement of the City of Oakland goal stated in the ECAP would be consistent with the State's adopted 2030 goals. For the purpose of compliance with CEQA, the City has developed its ECAP Consistency Checklist (ECAP Checklist) through which projects are analyzed for consistency with the City of Oakland ECAP and its GHG emissions reduction targets.

An ECAP Checklist was prepared for the Project (see **Appendix E**). If a development project can qualitatively demonstrate compliance with all the measures included in the ECAP Checklist as part of the project's design, or alternatively, demonstrate to the City's satisfaction why the measure is not applicable, then the project will be considered in compliance with the City's ECAP. If a development project cannot meet all of the ECAP Checklist items, the project will alternatively need to demonstrate consistency with the ECAP by preparing and implementing a project-specific GHG Reduction Plan consistent with City SCA GHG-1, *Project Compliance with the ECAP Consistency Checklist*. If the project cannot demonstrate consistency with the ECAP in either of those two ways, the City will consider the project to have a significant effect on the environment related to GHG emissions.

According to the Project's ECAP Checklist, the proposed Project has committed to all applicable GHG emissions reduction strategies, and would, therefore, be in compliance with the ECAP. In addition to its compliance with Oakland's ECAP, the proposed Project would also comply with the City's current City Sustainability Programs; General Plan policies and regulations regarding GHG reductions; and other local, regional and statewide plans, policies and regulations that are related to the reduction of GHG emissions and relevant to the Project.

The Project would be consistent with the State's 2022 Climate Change Scoping Plan, in achieving a reduction of anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045. The 2022 Scoping Plan aims to achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon. The proposed Project would not conflict or otherwise interfere with the statewide GHG reduction measures identified in the 2022 Scoping Plan and above plans, programs, or policies.

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." Although the proposed Project involves the construction of one new building (the approximately 1,850 square-foot public restroom/boating program showers building [#7]), it would be required to use a permanent supply of electricity as the source of energy for all space heating and water heating, if applicable), and would be prohibited from having natural gas or propane plumbing installed in the building.

Although not required to mitigate a significant impact related to GHG emissions, the Project would be required to implement several other City of Oakland SCAs that would contribute to minimizing potential GHG emissions from Project construction and operations. These include SCA AES-3, *Landscape Plan*; SCA AIR-2, *Criteria Air Pollutant Controls - Construction Related*; SCA UTIL-1, *Construction and Demolition Waste Reduction and Recycling*; and SCA UTIL-7, *WELO*. The Project would optimize the electricity use through the use of efficient lighting and meet the most recent Building Energy Efficiency Standards adopted in 2022. Also, the Project would be a local serving use, is located in proximity to transit services. To minimize GHG emissions associated with vehicle trips, the Project would be consistent with the City's adopted Bike and Pedestrian Plan in that the Project incorporates pedestrian and bicycle friendly design, with none proposed within the existing public right of way. Also, the Project will now create improved parking areas but no substantial net gain or loss to existing spaces..

Overall, the Project would be consistent with all applicable goals, policies and regulations adopted to reduce GHG emissions and would implement SCA GHG-1, which would ensure that all ECAP Checklist items are incorporated into the Project. Therefore, the impact would be less than significant.

8.14.3 Conclusion

Based on the analysis above, with the implementation of City SCAs, the proposed Project would not result in a significant impact regarding GHG emissions or compliance with applicable plans, policies, or regulations adopted for the purposes of reducing greenhouse gas emissions. In addition, although not required to reach a less-than-significant impact, implementation of **SCA AES-3, *Landscape Plan***; **SCA AIR-2**, ***Criteria Air Pollutant Controls – Construction Related***; **SCA UTIL-1**, ***Construction and Demolition Waste Reduction and Recycling***; and **SCA UTIL-7, *WELO***, (all stated fully in Attachment A) would further reduce GHG emissions. No mitigation measures are required. No further analysis is warranted.

O. Agriculture and Forestry Resources

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous EIR	Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR	New Significant Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;	☒	☐	☐
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract	☒	☐	☐
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g));	☒		
d. Result in the loss of forest land or conversion of forest land to non-forest use; or	☒		
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.	☒		

NOTE: Changes shown to 2009 EIR thresholds due to subsequent changes in State CEQA Guidelines and/or Oakland CEQA Thresholds.

8.15.1 2009 EIR Findings

No impacts were identified for agricultural and forestry resources in the 2009 EIR.

8.15.2 Project Analysis

The proposed Project site is located within an area designated as urban and built-up land by the California Department of Conservation's (DOC) Farmland Mapping and Monitoring Program (FMMP).[17]There are no Williamson Act contracts on or adjacent to the Project site.[18] Also, the City of Oakland does not designate land uses for agriculture or forestry in its General Plan. Since the proposed Project site is located on land designated as urban and built-up land, and is not subject to a Williamson Act contract, the Project would not convert FMMP-designated Farmland or cause a conflict with an existing Williamson Act contract. No mitigation measures are required.

[17] *California Important Farmland Finder*. Alameda County Important Farmland 2016, database updated December 27, 2019.
[18] California Department of Conservation (DOC). 2015. Division of Land Resource Protection, *Alameda County Williamson Act FY 2014/2015*.

8.15.3 Conclusion

The proposed Project would not result in any new impacts related to agricultural and forestry resources; no impacts were identified in the 2009 EIR. No mitigation measures are required. No further analysis is warranted.

9.0 References

All references cited below are available at the Oakland Bureau of Planning, Agency, 250 Frank Ogawa Plaza, Suite 3330, Oakland, California, unless specified otherwise.

9.1 Oak to Ninth Avenue (Brooklyn Basin) Project EIR

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

City of Oakland Resolution No. 81769 C.M.S., approved January 20, 2009.

Brooklyn Basin Marina Expansion Project Supplemental EIR, December 2022.

9.2 Oakland General Plan

City of Oakland, Open Space, Conservation and Recreation, An Element of the Oakland General Plan, June 11, 1996.

City of Oakland, City of Oakland General Plan, Historic Preservation Element, amended to July 21, 1998.

City of Oakland, Bicycle Master Plan, Part of the Land Use and Transportation Element of the Oakland General Plan, June 1999.

City of Oakland, Oakland General Plan, Estuary Policy Plan, June 8, 1999a.

City of Oakland, Central District Urban Renewal Plan, amended to July 24, 2001.

City of Oakland, Pedestrian Master Plan, Part of the Land Use and Transportation Element of the Oakland General Plan, November 12, 2002.

10.0 Attachments

A. Standard Conditions of Approval and Mitigation Monitoring and Reporting Program

11.0 Appendices

A. Estuary Park Conceptual Plans from the 2009 EIR: 2005 Draft EIR; 2006 Final EIR; 2006 Addendum #1
B. Air Quality Technical Data (CalEEMod Output, AERMOD Output, Construction HRA)
C. Cultural Resources Evaluation Report, Archaeological/Historical Consultants 2018

D. Peer Review Memo of the Estuary Park Renovation & Expansion Project Cultural Resources Evaluation, ESA 2023
E. Draft Secretary of the Interior's Standards for Rehabilitation Compliance Memo, ESA 2023
F. ECAP Consistency Checklist

This page intentionally left blank

ATTACHMENT A

Standard Conditions of Approval and Mitigation Monitoring and Reporting Program

This Standard Conditions of Approval (SCAs) and Mitigation Monitoring and Reporting Program (SCAMMRP) is based on the CEQA Checklist prepared for the *Estuary Park Renovation + Expansion Project Conceptual Plan – Draft Master Plan, Project Conceptual Plan* (Project).

This SCAMMRP is in compliance with Section 15097 of the CEQA Guidelines, which requires that the Lead Agency "adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects." The SCAMMRP lists mitigation measures recommended in the *Oak to Ninth Avenue Project Environmental Impact Report* (EIR) (2009 EIR) that apply to the proposed Estuary Park Project. The SCAMMRP also lists other SCAs that apply to the proposed Project but that were not established when the 2009 EIR was prepared. Specifically, on July 1, 2024, the City of Oakland released a revised set of all City of Oakland SCAs, which largely still include SCAs originally adopted by the City in 2008, along with supplemental, modified, and new SCAs. SCAs are measures that would minimize potential adverse effects that could result from implementation of the proposed Project, to ensure the conditions are implemented and monitored. In certain cases, SCAs supersede mitigation measures in the 2009 EIR. This SCAMMRP identifies the mitigation monitoring requirements for each remaining mitigation measure that applies to the proposed Project, as well as for each SCA.

To the extent that there is any inconsistency between any mitigation measures and/or SCAs, the more restrictive conditions shall govern; to the extent any mitigation measure and/or SCA identified in the CEQA Checklist were inadvertently omitted, they are automatically incorporated herein by reference.

- The first column of the SCARP table identifies the SCA applicable to that topic in the CEQA Checklist. While a mitigation measure or SCA can apply to more than one topic, it is listed in its entirety only under its primary topic (as indicated in the mitigation or SCA designator). The SCAs are numbered to specifically apply to the Project and this

CEQA Checklist; however, the SCAs as presented in the City's *Standard Conditions of Approval* [19] are included in parenthesis for cross-reference purposes.

- The second column identifies the monitoring schedule or timing applicable to the Project.
- The third column names the party responsible for initial approval and, if different from that party, monitoring and inspection. Overall monitoring and compliance with the mitigation measures will be the responsibility of the Bureau or Planning, Zoning Inspections Division, in addition to other City of Oakland departments or bureaus identified in the third column.

The Project Applicant is responsible for implementing any recommendations identified in City-approved technical reports, and all applicable SCAs set forth herein, at its sole cost and expense, unless otherwise expressly provided in a specific mitigation measure or SCA and subject to the review and approval of the City of Oakland. Prior to the issuance of a demolition, grading, and/or construction permit, the Project Applicant shall pay the applicable mitigation and monitoring fee to the City in accordance with the City's Master Fee Schedule.

[19] As amended through July 1, 2024.

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
General		
SCA GEN-1 (Standard Condition Approval 17) *Regulatory Permits and Authorizations from Other Agencies* Requirement: The project applicant shall obtain all necessary regulatory permits and authorizations from applicable resource/regulatory agencies including, but not limited to, the Regional Water Quality Control Board, Bay Area Air Quality Management District, Bay Conservation and Development Commission, California Department of Fish and Wildlife, U. S. Fish and Wildlife Service, and Army Corps of Engineers and shall comply with all requirements and conditions of the permits/authorizations. The project applicant shall submit evidence of the approved permits/authorizations to the City, along with evidence demonstrating compliance with any regulatory permit/authorization conditions of approval.	Prior to activity requiring permit/authorization from regulatory agency.	City of Oakland Bureau of Planning and applicable regulatory agency with jurisdiction.
A. Land Use, Plans, and Policies		
No 2009 EIR Mitigation Measures or new SCAs apply to the proposed Project.		
B. Transportation		
2009 EIR Mitigation Measure B.10 *(Traffic Management Strategies):* Prior to initiation of each phase of development, the project applicant and construction contractor shall meet with the Traffic Engineering and Parking Division of the Oakland Public Works Agency and other appropriate City of Oakland and non-City agencies (e.g., Caltrans) to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project and other nearby projects that could be simultaneously under construction. The project applicant shall develop a construction management plan for review and approval by the City Traffic Engineering Division. The plan shall include at least the following items and requirements: • A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. In addition, the information shall include a construction	Prior to issuance of the first demolition, grading or building permit in the respective development parcel; to be included as a standard part of all building and grading permit plans and specifications.	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
staging plan for any right-of-way used on the Embarcadero, including sidewalk and lane intrusions and/or closures. • Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur. • Location of construction staging areas for materials, equipment, and vehicles (must be located on the project site). • Identification of haul routes for movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety; and provision for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project applicant. • Temporary construction fences to contain debris and material and to secure the site. • Provisions for removal of trash generated by project construction activity. • A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager. • Provisions for monitoring surface streets used for truck routes so that any damage and debris attributable to the trucks can be identified and corrected. • Provisions for coordination with BART to reduce, as needed, adverse effect on access to the Lake Merritt BART Station.		
SCA TRA-1 (Standard Condition of Approval 82) *Construction Activity in the Public Right-of-Way* ***a. Obstruction Permit Required*** Requirement: The project applicant shall obtain an obstruction permit from the City prior to placing any temporary construction-related obstruction in the public right-of-way, including City streets, sidewalks, bicycle facilities, and bus stops. ***b. Traffic Control Plan Required***	a. Prior to approval of construction-related permit. b. Prior to approval of construction-related permit. c. Prior to building permit final.	City of Oakland Department of Transportation

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
Requirement: In the event of obstructions to vehicle or bicycle travel lanes, bus stops, or sidewalks, the project applicant shall submit a Traffic Control Plan to the City for review and approval prior to obtaining an obstruction permit. The project applicant shall submit evidence of City approval of the Traffic Control Plan with the application for an obstruction permit. The Traffic Control Plan shall contain a set of comprehensive traffic control measures for auto, transit, bicycle, and pedestrian accommodations (or detours, if accommodations are not feasible), including detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. The Traffic Control Plan shall be in conformance with the City's Supplemental Design Guidance for Accommodating Pedestrians, Bicyclists, and Bus Facilities in Construction Zones. The project applicant shall implement the approved Plan during construction. *c. **Repair of City Streets*** Requirement: The project applicant shall repair any damage to the public right-of way, including streets and sidewalks, caused by project construction at his/her expense within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair shall occur prior to approval of the final inspection of the construction-related permit. All damage that is a threat to public health or safety shall be repaired immediately.		
Also **SCA REC-1, Access to Parks and Open Space**. See *Public Services and Recreation*, below.		
C. Air Quality		
SCA AIR-1 (Standard Condition of Approval 22) *Dust Controls – Construction-Related.* Requirement: The project applicant shall implement all of the following applicable dust control measures during construction of the project: a) Water all exposed surfaces of active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever feasible.	During construction.	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
b) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). c) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. d) Limit vehicle speeds on unpaved roads to 15 miles per hour. e) All excavation, grading, and/or demolition activities (if any) shall be suspended when average wind speeds exceed 20 mph. f) All trucks and equipment, including tires, shall be washed off prior to leaving the site. g) Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel. h) All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.		
[ENHANCED CONTROLS: All "Basic" controls listed above plus the following controls if the project involves: • **Extensive site preparation (i.e., the construction site is four acres or more in size); or** • **Extensive soil transport (i.e., 10,000 or more cubic yards of soil import/export).]** i) Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities. j) Apply and maintain vegetative ground cover (e.g., hydroseed) or non-toxic soil stabilizers to disturbed areas of soil that will be inactive for more than 10 days. Enclose, cover, water twice daily, or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.). k) Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include	During construction.	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
holidays and weekend periods when work may not be in progress. l) When working at a site, install appropriate wind breaks (e.g., trees, fences) on the windward side(s) of the site, to minimize wind-blown dust. Windbreaks must have a maximum 50 percent air porosity. m) Post a publicly visible large on-site sign that includes the contact name and phone number for the project complaint manager responsible for responding to dust complaints and the telephone numbers of the City's Code Enforcement unit and the Bay Area Air Quality Management District. When contacted, the project complaint manager shall respond and take corrective action within 48 hours. n) All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe. o) Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent. Plant vegetation in areas designated for landscaping as soon as possible and water appropriately until vegetation is established.		
SCA AIR-2 (Standard Condition of Approval 23) ***Criteria Air Pollutant Controls - Construction and Operation Related.*** Requirement: The project applicant shall implement all of the following applicable basic and enhanced control measures for criteria air pollutants during construction of the project as applicable: a) Idling times on all diesel-fueled commercial vehicles over 10,000 lbs. shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to two minutes (as required by the California airborne toxics control measure Title 13, Section 2485, of the California Code of Regulations). Clear signage to this effect shall be provided for construction workers at all access points. b) Idling times on all diesel-fueled off-road vehicles over 25 horsepower shall be minimized either by shutting equipment off when not in use r reducing the maximum idling time to two minutes and fleet operators must develop a written policy as required by Title 23, Section 2449, of the California Code of	During construction.	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
Regulations ("California Air Resources Board Off- Road Diesel Regulations"). c) All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. Equipment check documentation should be kept at the construction site and be available for review by the City and the Bay Area Air Quality District as needed. d) Portable equipment shall be powered by grid electricity if available. If electricity is not available, propane or natural gas generators shall be used if feasible. Diesel engines shall only be used if grid electricity is not available and propane or natural gas generators cannot meet the electrical demand. e) Low VOC (i.e., ROG) coatings shall be used that comply with BAAQMD Regulation 8, Rule 3: Architectural Coatings. f) All equipment to be used on the construction site shall comply with the requirements of Title 13, Section 2449, of the California Code of Regulations ("California Air Resources Board Off-Road Diesel Regulations") and upon request by the City (and the Air District if specifically requested), the project applicant shall provide written documentation that fleet requirements have been met. i.		
SCA AIR-3 (Standard Condition of Approval 24), ***Toxic Air Contaminant Controls-Construction.*** ***a. Particulate Matter Reduction Measures*** Requirement: The project applicant shall implement appropriate measures during construction to reduce potential health risks to sensitive receptors due to exposure to diesel particulate matter (DPM) and particulate matter less than 2.5 microns in diameter (PM2.5) in exhaust and fugitive emissions from construction activities. The project applicant shall choose to implement I or both ii and iii: i. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with current guidance from the California Air Resources Board (CARB), the Office of Environmental	Prior to issuance of a construction related permit (i), during construction (ii)	City of Oakland Bureau of Planning (Initial Approval) City of Oakland Bureau of Building (Monitoring/Inspection).

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
Health and Hazard Assessment, and the Bay Area Air Quality Management District (BAAQMD) to determine the health risk to sensitive receptors exposed to DPM and PM2.5 from exhaust and fugitive emissions from project construction. The HRA shall be based on project-specific construction schedule, equipment, and activity data. Estimated project-level health risks shall be compared to the City's health risk significance thresholds for projects. The HRA shall be submitted to the City (and the Air District if specifically requested) for review and approval. If the HRA concludes that the health risk is at or below the City's health risk significance thresholds for projects, then DPM and PM2.5 reduction measures are not required. If the HRA concludes that the health risk exceeds the City's health risk significance thresholds for projects, DPM and PM2.5 reduction measures shall be identified to reduce the health risk to below the City's health risk significance thresholds as set forth under subsection b below. Identified DPM and PM2.5 reduction measures shall be submitted to the City for review and approval prior to the issuance of building permits and the approved DPM and PM2.5 reduction measures shall be implemented during construction. -or- ii. The project applicant shall incorporate the following health risk reduction measures into the project to reduce TAC emissions from construction equipment. These features shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City: • All off-road diesel equipment shall be equipped with the most effective Verified Diesel Emission Control Strategies (VDECS) available for the engine type (Tier 4 engines automatically meet this requirement) as certified by CARB. The equipment shall be properly maintained and tuned in accordance with manufacturer specifications. This shall be verified through an equipment inventory submittal and Certification Statement that the Contractor agrees to		

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
compliance and acknowledges that a significant violation of this requirement shall constitute a material breach of contract. • Where access to grid-powered electricity is available, portable diesel engines shall be prohibited and electric engines shall be used for concrete/industrial saws, sweepers/scrubbers, aerial lifts, welders, air compressors, fixed cranes, forklifts, cement and mortar mixers, pressure washers, and pumps. Any other best available technology that reduces emissions offered at the time that future projects are reviewed may be included in the construction emissions minimization plan (e.g., alternative fuel sources, etc.).-and- iii. The project applicant shall implement all enhanced control measures included in SCA 20 (Dust Controls – Construction Related).		
D. Hydrology and Water Quality		
2009 EIR Mitigation Measure D.1 *(Permitting):* The project sponsor shall comply with all NPDES requirements, RWQCB General Construction Permit requirements, and all City regulations and Creek Protection Permits requirements.	Prior to issuance of a grading permit.	City of Oakland Bureau of Planning and Bureau of Building
2009 EIR Mitigation Measure D.2 *(Dredge Permitting):* The project sponsor shall obtain and comply with all water quality certification and requirements required for dredging activities, which shall include a Section 404 permit process pursuant to the Army Corps of Engineers (Corps) and pursuant to the oversight, permitting, and approval of the Dredged Material Management Office (DMMO).	As part of the permit review and approval process, prior to commencing in-water work, if applicable.	City of Oakland Bureau of Planning and Bureau of Building
2009 EIR Mitigation Measure D.5 *(Landscape Management Plan):* The project sponsor shall prepare a landscape management plan (LMP) for all public open spaces that includes, but is not necessarily limited to, a description of application, storage, and safety measures involving the use of pesticides and fertilizers. The LMP shall include but not be limited to the following:	Prior to issuance of a grading permit.	City of Oakland Bureau of Planning and Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
• Transportation and storage: Pesticides and fertilizers shall be transported and stored as per state and federal guidelines. They shall be stored in designated bermed areas onsite. • Pesticide Application: Pesticides and fertilizers shall be handled and applied according to the procedures set by the manufacturer. The LMP shall address methods to optimize and reduce the use of pesticides and fertilizers and present strategies to incorporate environmentally-safe (organic) pest and growth enhancement materials. These strategies shall address eventually eliminating the use of chemicals such as diazinon that harm water quality. The RWQCB has found that the pesticides have a reasonable potential to cause or contribute to exceedances of water quality standards. • Therefore, the NPDES permit requires the City of Oakland (as a permittee) to address pesticides. The project sponsor shall adhere to the Diazinon Pollutant Reduction Plan or the Pesticide Plan submitted by the ACCWP to the RWQCB. The goals of the Pesticide Plan and of its resulting implementing actions are to reduce or substitute pesticide use (especially diazinon use) with less toxic alternatives (ACCWP, 2003). • The Plan shall identify pesticide and fertilizer application schedules. • Container Disposal: The contractor shall dispose of empty containers carefully. The containers shall never be disposed at locations that would contaminate natural waterways. • The LMP and its recommendations for use, control, and eventual reduction of nonorganic pesticide and fertilizer use shall be approved by the City prior to installing the landscape and shall be implemented throughout the life of the project.		
2009 EIR Mitigation Measure D.6 *(Dewatering Permitting):* The project sponsor shall comply with NPDES permit requirements by the RWQCB for dewatering activities.	Throughout construction.	City of Oakland Bureau of Planning and Bureau of Building
SCA HYD-1 (Standard Condition of Approval 67): Bay Conservation and Development Commission (BCDC) Approval. 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	Prior to activity requiring permit/approval from BCDC.	Initial Approval: Approval by BCDC; evidence of approval submitted to Bureau of Planning Monitoring/Inspection: BCDC

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
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.		
SCA HYD-2 (Standard Condition of Approval 66): Structures in a Flood Zone. 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 Base Flood Elevation (BFE).	Prior to approval of construction-related permit.	City of Oakland Bureau of Building
SCA HYD-3 (Standard Condition of Approval 54): Erosion and Sedimentation Control Plan for Construction. Requirement: The project applicant shall implement Best Management Practices (BMPs) to reduce erosion, sedimentation, and water quality impacts during construction to the maximum extent practicable. At a minimum, the project applicant shall provide filter materials deemed acceptable to the City at nearby catch basins to prevent any debris and dirt from flowing into the City's storm drain system and creeks.	Prior to approval of construction-related permit.	City of Oakland Bureau of Building
SCA HYD-4 (Standard Condition of Approval 56) State Construction General Permit. Requirement: The project applicant shall comply with the requirements of the Construction General Permit issued by the State Water Resources Control Board (SWRCB). The project applicant shall submit a Notice of Intent (NOI), Stormwater Pollution Prevention Plan (SWPPP), and other required Permit Registration Documents to SWRCB. The project applicant shall submit evidence of compliance with Permit requirements to the City.	Prior to approval of construction-related permit.	Initial Approval: State Water Resources Control Board; evidence of compliance submitted to Bureau of Building Monitoring/Inspection: State Water Resources Control Board
SCA HYD-5 (Standard Condition of Approval 60) NPDES C.3 Stormwater Requirements for Regulated Projects. *a. Post-Construction Stormwater Management Plan Required* Requirement: The project applicant shall comply with the requirements of Provision C.3 of the Municipal Regional Stormwater Permit issued under the National Pollutant Discharge Elimination System (NPDES). The project applicant shall submit a Post-Construction Stormwater Management Plan to the City for review and approval with the project drawings submitted for site improvements, and shall implement the	Prior to approval of construction-related permit.	City of Oakland Bureau of Planning and Bureau of Building (Initial Approval) City of Oakland Bureau of Building (Monitoring/Inspection.

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
approved Plan during construction. The Post-Construction Stormwater Management Plan shall include and identify the following: i. Location and size of new and replaced impervious surface; ii. Directional surface flow of stormwater runoff; iii. Location of proposed on-site storm drain lines; iv. Site design measures to reduce the amount of impervious surface area; v. Source control measures to limit stormwater pollution; vi. Stormwater treatment measures to remove pollutants from stormwater runoff, including the method used to hydraulically size the treatment measures; and vii. Hydromodification management measures, if required by Provision C.3, so that post- project stormwater runoff flow and duration match pre-project runoff.		
b. Maintenance Agreement Required Requirement: The project applicant shall enter into a maintenance agreement with the City, based on the Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement, in accordance with Provision C.3, which provides, in part, for the following: i. The project applicant accepting responsibility for the adequate installation/construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the project until the responsibility is legally transferred to another entity; and ii. Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment measures and to take corrective action if necessary. The maintenance agreement shall be recorded at the County Recorder's Office at the applicant's expense.	Prior to building permit final.	City of Oakland Bureau of Building
E. Cultural Resources		
2009 EIR Mitigation Measure E.1a *(Cultural Resource Evaluation):* An archival cultural resource evaluation shall be implemented prior to the start of construction or other ground-disturbing activities to identify whether historic or unique archaeological resources exist within the	Prior to the issuance of a building or grading permit.	City of Oakland Bureau of Planning and Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
project site. The archival cultural resource evaluation, or "sensitivity study," shall be conducted by a cultural resource professional approved by the City and who meets the Secretary of the Interior's Professional Qualifications Standards for Prehistoric and Historical Archaeology. The purpose of the archival cultural resource evaluation is to: (1) identify documentation and studies to determine the presence and location of potentially significant archaeological deposits; (2) determine if such deposits meet the definition of a historical resource under CEQA Guidelines Section 15064.5 or a unique archaeological resource under CEQA Section 21083.2(9); (3) guide additional archaeological work, potentially including pre-construction subsurface archaeological investigation if warranted, to recover the information potential of such deposits; and (4) define an archaeological monitoring plan, if warranted. A pre-construction meeting shall occur with the cultural resource professional and the City regarding the findings of the evaluation, and shall include consultation with and considerations of the Department of Toxic Substances (DTSC), the Lead Agency for the environmental cleanup activities on the project site. If excavation is the only feasible means of data recovery, such excavation shall be in accord with the provisions of CEQA Guidelines Section 15126.4(b)(3)(C). Any additional archaeological work and or monitoring shall be pursuant to a plan approved by the City. If a pre- constructing testing program is deemed necessary by the qualified professional as a result of the archival study, it shall be guided by archival study and shall use a combination of subsurface investigation methods (including backhoe trenching, auguring, and archaeological excavation units, as appropriate.) If monitoring of any areas during ground disturbing activities is determined to be required based on the results of the archival evaluation and the pre-construction testing, the monitoring will be conducted by a qualified cultural resources professional and the monitoring plan will include appropriate provisions for evaluating any archaeological deposits, consultation with the City, and any necessary data recovery program.		
2009 EIR Mitigation Measure E.1b *(Environmental Training):* Prior to the commencement of ground distributing activities, all construction personnel shall receive environmental training from a cultural resource professional approved by the City and who meets the Secretary of the Interior's Professional Qualifications Standards for Prehistoric and Historical Archaeology. The purpose of the environmental training is to	Prior to the issuance of a building or grading permit	City of Oakland Bureau of Planning and Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
inform all construction personnel of the possibility of encountering historical resources. All construction personnel specifically involved in onsite activities that may uncover prehistoric resources shall be trained in the identification of prehistoric resources and immediate actions required if potential resources are found.		
SCA CUL-1 (Standard Condition of Approval 38): Archaeological and Paleontological Resources – Discovery During Construction Requirement: 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.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.	During construction.	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
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 at the expense of the project applicant.		
SCA CUL-2 (Standard Condition of Approval 40): Human Remains – Discovery During Construction Requirement: 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 (NAHC), 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.	During construction.	City of Oakland Bureau of Building
F. Geology, Soils and Seismicity; Mineral Resources		
2009 EIR Mitigation Measure F.1: *(Site Geotechnical Investigation)* A site-specific, design level geotechnical investigation for each site area (which is typical for any large development project) shall be required as part of this project. Each investigation shall include an analysis of expected ground motions at the site from known active faults. The analyses shall be in accordance with applicable City ordinances and policies and consistent with the most recent version of the California Building Code ,which requires structural design that can accommodate ground accelerations expected from known active faults. In addition, the investigations shall		

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
determine final design parameters for the walls, foundations, foundation slabs, and surrounding related improvements (utilities, roadways, parking lots and sidewalks). The investigations shall be reviewed and approved by a registered geotechnical engineer. All recommendations by the project engineer and geotechnical engineer shall be included in the final design. Recommendations that are applicable to foundation design, earthwork, and site preparation that were prepared prior to or during the project design phase, shall be incorporated in the project. The final seismic considerations for the site shall be submitted to and approved of by the City of Oakland Building Services Division prior to the commencement of the project.		
2009 EIR Mitigation Measure F.2: *(Building Site Geotechnical Investigation)* Prepare an updated site specific, design level geotechnical investigation for each building site to consider the particular project designs and provide site specific engineering recommendations for mitigation of liquefiable soils. Liquefiable soils under the conditions described in the geotechnical report shall be mitigated using various proven methods to reduce the risk of liquefaction. Liquefaction mitigation measures include subsurface soil improvement, deep foundations, structural slabs, and soil cover. Site improvement methods to address potential liquefaction include dynamic compaction, compaction grouting, jet grouting, and vibroflotation can significantly reduce the risk of liquefaction. Deep foundations extending below the liquefiable layers can be designed to support structures despite the occurrence of liquefaction. Structural slabs are designed to span across areas of non-support, such as in the case of liquefaction or settlement. The presence of a sufficiently thick, engineered fill layer over liquefiable soil can reduce the potential for damage at the ground surface due to liquefaction by helping to bridge across isolated liquefaction zones. Other methods of mitigating potential liquefaction hazards suggested in the *California Geological Survey's (CGS) Geology Guidelines for Evaluating and Mitigating Seismic Hazards* (CGS Special Publication 117, 1997) include edge containment structures (berms, dikes sea walls, retaining structures, compacted soil zones), removal or treatment of liquefiable soils, modification of site geometry, lowering the groundwater table, in-situ ground densification, deep foundations, reinforced shallow foundations, and structural design that can accommodate predicted displacements (CDMG, 1997). These measures shall be evaluated during the site specific geotechnical investigation and the most effective, practical and economical methods		

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
should become part of the project. Prior to incorporation into the project, geotechnical engineering recommendations regarding the mitigation and reduction of liquefaction for each site shall be reviewed for compliance with the CGS Geology Guidelines. The purpose of these guidelines is to protect the public safety from seismic effects such as liquefaction.		
2009 EIR Mitigation Measure F.3: *(Standard Geotechnical Practices)* As with standard geotechnical practices, site specific geotechnical investigations and reports would be required in order to obtain permits from the City of Oakland. Such geotechnical investigations and reports prepared for the project site shall include generally accepted and appropriate engineering techniques for determining the susceptibility of the project site to settlement and reducing its effects. Where settlement and/or differential settlement is predicted, mitigation measures such as lightweight fill, geofoam, surcharging, wick drains, deep foundations, structural slabs, hinged slabs, flexible utility connections, and utility hangers could be used. These measures shall be evaluated and the most effective, feasible, and economical measures shall be recommended. Engineering recommendations shall be included in the project engineering and design plans. All construction activities and design criteria shall comply with applicable codes and requirements of the 1997 UBC with California additions (Title 22), and applicable City construction and grading ordinances.		
2009 EIR Mitigation Measure F.4: *(Dredge Permitting)* Any dredged material used for fill will have to undergo an appropriate process of consolidation and stabilization to render it suitable for the support of engineered fill. A geotechnical investigation and report will be required in order to obtain permits from the City of Oakland in addition to the Dredged Material Management Office permitting requirements. The geotechnical investigations and reports prepared for the project site shall include generally accepted and appropriate engineering techniques for determining the susceptibility of the project specific site to settlement and reducing its effects. Engineering recommendations shall be included in the project engineering and design plans. The use of dredged materials as fill shall be limited to open space areas.		
2009 EIR Mitigation Measure F.5: *(Permitting)* Consistent with Mitigation Measure D.1 (which addresses construction-related water quality impacts), the project sponsor shall comply with all applicable NPDES requirements, RWQCB General Construction Permit requirements, and		

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
all City regulations, including Creek Protection Permits, as detailed in Mitigation D.1.		
SCA GEO-1 (Standard Condition of Approval 42): Construction-Related Permit(s) Requirement: The Project applicant shall obtain all required construction-related permits/approvals from the City. The Project shall comply with all standards, requirements and conditions contained in construction-related codes, including but not limited to the Oakland Building Code and the Oakland Grading Regulations, to ensure structural integrity and safe construction.	Prior to approval of construction-related permit.	City of Oakland Bureau of Building
SCA GEO-2 (Standard Condition of Approval 45): Seismic Hazards Zone (Landslide/Liquefaction) Requirement: The project applicant shall submit a site-specific geotechnical report, consistent with California Geological Survey Special Publication 117 (as amended), prepared by a registered geotechnical engineer for City review and approval containing at a minimum a description of the geological and geotechnical conditions at the site, an evaluation of site-specific seismic hazards based on geological and geotechnical conditions, and recommended measures to reduce potential impacts related to liquefaction and/or slope stability hazards. The project applicant shall implement the recommendations contained in the approved report during project design and construction.	Prior to approval of construction-related permit.	City of Oakland Bureau of Building
Also **SCA HYD-3, Erosion and Sedimentation Control Plan for Construction,** see *Hydrology and Water Quality,* above.		
Also **SCA HYD-4, State Construction General Permit,** see *Hydrology and Water Quality*, above.		
G. Noise		
SCA NOI-1 (Standard Condition of Approval 69) *Construction Days/Hours* Requirement: The project applicant shall comply with the following restrictions concerning construction days and hours: a. Construction activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, except that pier drilling and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m.	During construction.	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
b. Construction activities are limited to between 9:00 a.m. and 5:00 p.m. on Saturday. In residential zones and within 300 feet of a residential zone, construction activities are allowed from 9:00 a.m. to 5:00 p.m. only within the interior of the building with the doors and windows closed. No pier drilling or other extreme noise generating activities greater than 90 dBA are allowed on Saturday. c. No construction is allowed on Sunday or federal holidays. Construction activities include, but are not limited to, truck idling, moving equipment (including trucks, elevators, etc.) or materials, deliveries, and construction meetings held on-site in a non-enclosed area. Any construction activity proposed outside of the above days and hours for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case-by-case basis by the City, with criteria including the urgency/emergency nature of the work, the proximity of residential or other sensitive uses, and a consideration of nearby residents'/occupants' preferences. The project applicant shall notify property owners and occupants located within 300 feet at least 14 calendar days prior to construction activity proposed outside of the above days/hours. When submitting a request to the City to allow construction activity outside of the above days/hours, the project applicant shall submit information concerning the type and duration of proposed construction activity and the draft public notice for City review and approval prior to distribution of the public notice.		
SCA NOI-2: (Standard Condition of Approval 70) *Construction Noise* Requirement: The project applicant shall implement noise reduction measures to reduce noise impacts due to construction. Noise reduction measures include, but are not limited to, the following**:** a. Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds) wherever feasible. b. Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are	During construction.	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
commercially available, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures. c. Applicant shall use temporary power poles instead of generators where feasible. d. Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction. The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.		
SCA NOI-3 (Standard Condition of Approval 71) *Extreme Construction Noise* ***a. Construction Noise Management Plan Required*** <u>Requirement</u>: Prior to any extreme noise generating construction activities (e.g., pier drilling, pile driving and other activities generating greater than 90dBA), the project applicant shall submit a Construction Noise Management Plan prepared by a qualified acoustical consultant for City review and approval that contains a set of site-specific noise attenuation measures to further reduce construction impacts associated with extreme noise generating activities. The project applicant shall implement the approved Plan during construction. Potential attenuation measures include, but are not limited to, the following: i. Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings; ii. Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions; iii. Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site; iv. Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example	a. Prior to approval of construction-related permit. b. During construction.	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
and implement such measure if such measures are feasible and would noticeably reduce noise impacts; and v. Monitor the effectiveness of noise attenuation measures by taking noise measurements. ***b. Public Notification Required*** Requirement: The project applicant shall notify property owners and occupants located within 300 feet of the construction activities at least 14 calendar days prior to commencing extreme noise generating activities. Prior to providing the notice, the project applicant shall submit to the City for review and approval the proposed type and duration of extreme noise generating activities and the proposed public notice. The public notice shall provide the estimated start and end dates of the extreme noise generating activities and describe noise attenuation measures to be implemented.		
SCA NOI-4 (Standard Condition of Approval 77) *Vibration Impacts on Adjacent Structures or Vibration-Sensitive Activities* Requirement: The project applicant shall submit a Vibration Analysis prepared by an acoustical and/or structural engineer or other appropriate qualified professional for City review and approval that establishes pre-construction baseline conditions and threshold levels of vibration that could damage the structure and/or substantially interfere with activities located at 5 Embarcadero. The Vibration Analysis shall identify design means and methods of construction that shall be utilized in order to not exceed the thresholds. The applicant shall implement the recommendations during construction.	Prior to construction.	City of Oakland Bureau of Building
H. Hazards and Hazardous Materials		
2009 EIR Mitigation Measure H.1a *(Cleanup/Health and Safety Plan)*: The applicant shall retain a qualified environmental consulting firm to prepare a cleanup plan for the contaminated soil and groundwater which would be based on a comprehensive remedial investigation report for the project area. This plan shall be approved by the appropriate regulatory agencies which may include but not be limited to the DTSC and the RWQCB. The plan shall also include the preparation of a health and safety plan to protect the workers and the public during all remediation and construction activities proposed. Following agency approval of the plan, remediation and removal work shall be conducted according to all applicable OSHA worker safety regulations. Remediation activities at the site may include, without limitation, closure	Prior to issuance of the first building permit and on-going during construction activities.	City of Oakland Bureau of Planning and Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
or removal of subsurface structures, excavation and disposal of contaminated materials, natural and enhanced bioremediation of soil and groundwater, restoration and improvement of shoreline structures, limited dredging of sediments, and institutional and engineering controls to prevent exposure to and migration of contaminated materials. Throughout the course of remediation and construction activities, the handling, transport, and storage of any hazardous waste or potentially hazardous waste shall be conducted appropriate to all local and state agency protocols.		
2009 EIR Mitigation Measure H.1b *(Soil Classification):* Prior to offsite disposal, the project applicant shall adequately profile excavated soils to establish the proper classification of the soils for hazardous or non-hazardous waste disposal. The soils shall be handled, stored and transported according to all applicable regulations for the appropriate classification.	Prior to issuance of the first building permit and on-going during construction activities.	City of Oakland Bureau of Building; Oakland Department of Public Works
2009 EIR Mitigation Measure H.1c *(Soil Reuse/Disposal):* Soil generated by construction activities shall be stockpiled onsite and sampled prior to reuse or disposal at an appropriate facility. Any reuse of soils shall be conducted by prior approval from the appropriate state oversight agency.	Prior to issuance of the first building permit and on-going during construction activities.	City of Oakland Bureau of Building; Oakland Department of Public Works
2009 EIR Mitigation Measure H.1d *(Groundwater):* Groundwater generated during construction dewatering shall be contained and transported offsite for disposal at an appropriate facility, or treated, if necessary, prior to discharge into the sanitary sewer to levels acceptable to the East Bay Municipal Utilities District.	Prior to issuance of the first building permit and on-going during construction activities.	City of Oakland Bureau of Building; Oakland Department of Public Works
2009 EIR Mitigation Measure H.1e *(Dredge Sampling):* Prior to dredging any materials from the Clinton Basin, the project applicant shall retain a qualified environmental consulting firm to prepare a Sampling and Analysis Plan (SAP) as described by the Corps of Engineers (PN 99-4). The SAP shall be approved by the Dredged Material Management Office (DMMO) and shall include a proposal for a disposal location and a disposal alternatives analysis. Following agency approval of the plan, sediment removal work shall be conducted in accordance with all applicable OSHA worker safety regulations. In addition, the handling, transport, and storage of any hazardous waste or potentially hazardous waste shall be conducted consistent with ail local and state agency protocols.	Prior to issuance of the first building permit and on-going during construction activities.	City of Oakland Bureau of Building; Oakland Department of Public Works

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
2009 EIR Mitigation Measure H.2a *(ACM Survey):* A pre-demolition asbestos-containing materials (ACM) survey shall be performed by a state-certified asbestos consultant prior to demolition of any of the structures located on the project site. The survey shall include sampling and analysis of suspected ACMs. Abatement of known or suspected ACMs shall occur prior to demolition or construction activities that would disturb those materials. Pursuant to an asbestos abatement plan developed by a state-certified asbestos consultant and approved by the City, all ACMs shall be removed and appropriately disposed of by a state certified asbestos contractor.	Prior to issuance of the first building permit and on-going during construction activities.	City of Oakland Bureau of Building; Oakland Department of Public Works
2009 EIR Mitigation Measure H.2b *(LBP Survey):* The project applicant shall implement a lead-based paint (LBP) abatement plan, prepared by a qualified consultant, shall include the following components: • A pre-demolition LBP survey for all structures proposed for demolition at the project site. The survey shall include sampling and identification of suspected materials containing LBP. • Development of an abatement specification plan which shall be based on survey work and detail proposed abatement work areas and procedures. • A site Health and Safety Plan. • Containment of all abatement work areas to prohibit offsite migration of paint chip debris. • Removal of all peeling and stratified lead-based paint on building surfaces and on non-building surfaces to the degree necessary to safely and properly complete demolition activities per the recommendations of the survey. The demolition contractor shall be identified as responsible for properly containing and disposing of intact lead- based paint on all equipment to be cut and/or removed during the demolition.	Prior to issuance of the first building permit and on-going during construction activities.	City of Oakland Bureau of Building
2009 EIR Mitigation Measure H.2c *(PCB Survey):* A pre-demolition polychlorinated biphenyls (PCB) survey shall be performed prior to demolition of any of the structures located on the project site. The survey shall include sampling and identification of suspected PCBs. Abatement of known or suspected PCBs shall occur prior to demolition or construction activities that would disturb those materials. In the event that electrical equipment or other PCB-containing materials are	Prior to issuance of the first building permit and on-going during construction activities.	City of Oakland Bureau of Building; Oakland Department of Public Works

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
identified prior to demolition activities they shall be removed, and shall be disposed of by a licensed transportation and disposal contractor at an appropriate hazardous waste facility.		
2009 EIR Mitigation Measure H.2d *(USTs):* When known or previously unidentified storage tanks (USTs) are encountered during construction, construction in the immediate area shall cease until the UST is removed with oversight from the City of Oakland Fire Department Hazardous Materials Unit or other applicable oversight agency. If there is any indication that the tank has leaked, then the lead agency shall direct any appropriate remediation measures. Removal of the UST shall include, to the extent deemed necessary by the lead agency, over-excavation and disposal of any impacted soil that may be associated with such tanks to a degree satisfactory to the oversight agency.	Prior to issuance of the first building permit and on-going during construction activities.	City of Oakland Bureau of Building; Oakland Department of Public Works
2009 EIR Mitigation Measure H.3 *(Construction BMPs-Hazards):* The use of construction best management practices shall be implemented as part of construction to minimize the potential negative effects to groundwater and soils. These shall include the following: • Follow manufacturer's recommendations on use, storage and disposal of chemical products used in construction; • Avoid overtopping construction equipment fuel • During routine maintenance of construction equipment, properly contain and remove grease and oils. • Properly dispose of discarded containers of fuels and other chemicals.	Prior to issuance of the first building permit and on-going during construction activities.	City of Oakland Bureau of Building; Oakland Department of Public Works
SCA HAZ-1 (Standard Condition of Approval 49): Hazards Materials Related to Construction Requirement: The Project applicant shall ensure that Best Management Practices (BMPs) are implemented by the contractor during construction to minimize potential negative effects on groundwater, soils, and human health. These shall include, at a minimum, the following: a. Follow manufacture's recommendations for use, storage, and disposal of chemical products used in construction; b. Avoid overtopping construction equipment fuel gas tanks; c. During routine maintenance of construction equipment, properly contain and remove grease and oils;	During construction.	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
d. Properly dispose of discarded containers of fuels and other chemicals; e. Implement lead-safe work practices and comply with all local, regional, state, and federal requirements concerning lead (for more information refer to the Alameda County Lead Poisoning Prevention Program); and If soil, groundwater, or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the project applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notifying the City and applicable regulatory agency(ies) and implementation of the actions described in the City's Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.		
I. Biological Resources		
2009 EIR 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.	During construction.	City of Oakland Bureau of Building
2009 EIR 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 1.2.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 rip-rap along the estuary edge will be operated from land using backhoes and cranes. Construction operations	During construction.	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
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 EIR 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 placing solid material, pilings floating structures boat docks, or other fill and/or dredging or other extraction of material from the Bay and the 100- foot shoreline band inland from mean high tide line along the length of the project site. Activities would include dredging for rebuilding the marina in Clinton Basin, and replacing the 5th Avenue marina with a new marina that will contain approximately 170 boat slips. The proposed project will include	During construction.	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
the removal of approximately 33,780 square feet of solid Bay fill as part of the shoreline design and the placement of 74,11O square feet of solid Bay fill for the creation of a village green at Clinton Basin. The project also includes 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 will be required to create the two proposed marinas. The project will be required to comply with all BCDC permit conditions that 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 the project.		
2009 EIR 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 located 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, and that 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.	During construction.	City of Oakland Bureau of Building
2009 EIR Mitigation Measure l.2e: *Compensatory Mitigation.* The project 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.	During construction.	City of Oakland Bureau of Building
2009 EIR Mitigation Measure I.3a: *Protection of Fish and Migrating Salmonids.* The project applicant shall implement measures for protection	During construction.	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
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).		
2009 EIR Mitigation Measure I.5: *Roosting Bat Surveys.* Before demolition of abandoned or underused buildings on the project site, such as the Ninth Avenue Terminal building, a qualified biologist who is familiar with bat biology and who is able to recognize signs of bats using abandoned buildings shall conduct pre-demolition building surveys in order to adequately make a determination on the presence of bat nurseries. If abandoned or underused buildings slated for destruction are being used by bats as nursery sites, demolition shall be postponed until young are reared and able to forage on their own. This determination shall be made by a qualified biologist specializing in bat biology. If bats are found to be roosting in abandoned or underused buildings on the project site, the bats shall be actively relocated to a temporary roosting structure (preferably onsite) during demolition activities. In addition, permanent bat roosting structures ("bat boxes") shall be created in order to properly mitigate the effects of a loss of roosting structure. The design of the bat boxes shall conform to the specifications appropriate to the species of bats found on the project site and vicinity, and shall be approved by a qualified bat biologist knowledgeable in the design of bat boxes. The bat boxes shall conform to the architectural design of the project buildings to reduce the visibility and obtrusiveness of the boxes and to avoid vandalism or disturbance to bat colonies.	During construction.	City of Oakland Bureau of Building
SCA BIO-1 (Standard Condition of Approval 30): *Bird Collision Reduction Measures* Requirement: 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 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.	Prior to approval of construction-related permit	City of Oakland Bureau of Planning and Planning and Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
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. • 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).		

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
• 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. •		
SCA BIO-2 (Standard Condition of Approval 34): *Tree Removal During Bird Breeding Season* Requirement: To the extent feasible, removal of any tree and/or other vegetation suitable for nesting of birds shall not occur during the bird breeding season of February 1 to August 15 (or during December 15 to August 15 for trees located in or near marsh, wetland, or aquatic habitats). If tree removal must occur during the bird breeding season, all trees to be removed shall be surveyed by a qualified biologist to verify the presence or absence of nesting raptors or other birds. Pre-removal surveys shall be conducted within 15 days prior to the start of work and shall be submitted to the City for review and approval. If the survey indicates the potential presence of nesting raptors or other birds, the	Prior to removal of trees.	City of Oakland Bureau of Planning and Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
biologist shall determine an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be determined by the biologist in consultation with the California Department of Fish and Wildlife, and will be based to a large extent on the nesting species and its sensitivity to disturbance. In general, buffer sizes of 200 feet for raptors and 50 feet for other birds should suffice to prevent disturbance to birds nesting in the urban environment, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest.		
SCA BIO-3 (Standard Condition of Approval 35): *Tree Permit* ***a. Tree Permit Required*** Requirement: Pursuant to the City's Tree Protection Ordinance (OMC chapter 12.36), the project applicant shall obtain a tree permit and abide by the conditions of that permit. ***b. Tree Protection During Construction*** Requirement: Adequate protection shall be provided during the construction period for any trees which are to remain standing, including the following, plus any recommendations of an arborist: i. Before the start of any clearing, excavation, construction, or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the project's consulting arborist. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree. ii. Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filling, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the project's consulting arborist from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree. iii. No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the project's consulting arborist from the base of any	a. Prior to approval of construction-related permit b. During construction. c. Prior to building permit final	a. City of Oakland Bureau of Building b. Initial Approval: Public Works Department, Tree Division Monitoring/Inspection: Bureau of Building c. Initial Approval: Public Works Department, Tree Division Monitoring/Inspection: Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the project's consulting arborist. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree. iv. Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration. v. If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Department and the project's consulting arborist shall make a recommendation to the City Tree Reviewer as to whether the damaged tree can be preserved. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed. vi. All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations. ***c. Tree Replacement Plantings*** Requirement: Replacement plantings shall be required for tree removals for the purposes of erosion control, groundwater replenishment, visual screening, wildlife habitat, and preventing excessive loss of shade, in accordance with the following criteria: i. No tree replacement shall be required for the removal of nonnative species, for the removal of trees which is required for the benefit of remaining trees, or where insufficient planting area exists for a mature tree of the species being considered. ii. Replacement tree species shall consist of Sequoia sempervirens (Coast Redwood), Quercus agrifolia (Coast Live Oak), Arbutus menziesii (Madrone), Aesculus californica (California Buckeye), Umbellularia californica (California Bay Laurel), or other tree species acceptable to the Tree Division. iii. Replacement trees shall be at least twenty-four (24) inch box size, unless a smaller size is recommended by the arborist, except that		

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
three fifteen (15) gallon size trees may be substituted for each twenty-four (24) inch box size tree where appropriate. iv. Minimum planting areas must be available on site as follows: • For Sequoia sempervirens, three hundred fifteen (315) square feet per tree; • For other species listed, seven hundred (700) square feet per tree. v. In the event that replacement trees are required but cannot be planted due to site constraints, an in lieu fee in accordance with the City's Master Fee Schedule may be substituted for required replacement plantings, with all such revenues applied toward tree planting in city parks, streets and medians. vi. vi. The project applicant shall install the plantings and maintain the plantings until established. The Tree Reviewer of the Tree Division of the Public Works Department may require a landscape plan showing the replacement plantings and the method of irrigation. Any replacement plantings which fail to become established within one year of planting shall be replanted at the project applicant's expense.		
Also **SCA AES-4, Lighting.** See *Aesthetics*, below.		
Also **SCA HYD-3, Erosion and Sedimentation Control Plan for Construction,** see *Hydrology and Water Quality*, above.		
Also **SCA HYD-4, State Construction General Permit.** See *Hydrology and Water Quality*, above.		
Also **SCA HYD-5, NPDES C.3 Stormwater Requirements for Regulated Projects.** See *Hydrology and Water Quality*, above.		
J. Population and Housing		
No 2009 EIR Mitigation Measures apply to the proposed Project.		
K. Aesthetics		
SCA AES-1 (Standard Condition of Approval 18) *Trash and Blight Removal* The project applicant and his/her successors shall maintain the property free of blight, as defined in chapter 8.24 of the Oakland Municipal Code. For nonresidential and multi-family residential projects, the project	Ongoing.	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
applicant shall install and maintain trash receptacles near public entryways as needed to provide sufficient capacity for building users.		
SCA AES-2 (Standard Condition of Approval 19) *Graffiti Control* a. During construction and operation of the project, the project applicant shall incorporate best management practices reasonably related to the control of graffiti and/or the mitigation of the impacts of graffiti. Such best management practices may include, without limitation: i. Installation and maintenance of landscaping to discourage defacement of and/or protect likely graffiti-attracting surfaces. ii. Installation and maintenance of lighting to protect likely graffiti-attracting surfaces. iii. Use of paint with anti-graffiti coating. iv. Incorporation of architectural or design elements or features to discourage graffiti defacement in accordance with the principles of Crime Prevention Through Environmental Design (CPTED). v. Other practices approved by the City to deter, protect, or reduce the potential for graffiti defacement. b. The project applicant shall remove graffiti by appropriate means within seventy-two (72) hours. Appropriate means include the following: i. Removal through scrubbing, washing, sanding, and/or scraping (or similar method) without damaging the surface and without discharging wash water or cleaning detergents into the City storm drain system. ii. Covering with new paint to match the color of the surrounding surface. iii. Replacing with new surfacing (with City permits if required).	Ongoing.	City of Oakland Bureau of Building
SCA AES-3 (Standard Condition of Approval 20) *Landscape Plan* ***a. Landscape Plan Required*** The project applicant shall submit a final Landscape Plan for City review and approval that is consistent with the approved Landscape Plan. The Landscape Plan shall be included with the set of drawings submitted for the construction-related permit and shall comply with the landscape requirements of chapter 17.124 of the Planning Code.	a. Prior to approval of construction-related permit. b. Prior to building permit final. c. Ongoing	a. City of Oakland Bureau of Planning b. City of Oakland Bureau of Building c. City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
Proposed plants shall be predominantly drought-tolerant. Specification of any street trees shall comply with the Master Street Tree List and Tree Planting 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 with any applicable streetscape plan. ***b. Landscape Installation*** The project applicant shall implement the approved Landscape Plan unless a bond, cash deposit, letter of credit, or other equivalent instrument acceptable to the Director of City Planning, is provided. The financial instrument shall equal the greater of $2,500 or the estimated cost of implementing the Landscape Plan based on a licensed contractor's bid. ***c. Landscape Maintenance*** All required planting shall be permanently maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable landscaping requirements. The property owner shall be responsible for maintaining planting in adjacent public rights-of-way. All required fences, walls, and irrigation systems shall be permanently maintained in good condition and, whenever necessary, repaired or replaced.		
SCA AES-4 (Standard Condition of Approval 21): *Lighting* 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.	Prior to building permit final.	City of Oakland Bureau of Building
Also **SCA REC-1, Access to Parks and Open Space**. See *Public Services and Recreation*.		
L. Public Services and Recreation		
SCA REC-1 (Standard Condition of Approval 81) *Access to Parks and Open Space* Requirement: The project applicant shall submit a plan for City review and approval to enhance bicycle and pedestrian access from the project site and adjacent areas to Estuary Park. Examples of enhancements may include, but are not limited to, new or improved bikeways, bike parking,	Prior to approval of construction-related permit	City of Oakland Bureau of Planning and City of Oakland Department of Transportation

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
traffic control devices, sidewalks, pathways, bulb-outs, and signage. The project sponsor shall install the approved enhancements during construction and prior to completion of the project.		
M. Utilities and Service Systems, and Energy		
SCA UTIL-1 (Standard Condition of Approval 89) *Construction and Demolition Waste Reduction and Recycling* Requirement: The project applicant shall comply with the City of Oakland Construction and Demolition Waste Reduction and Recycling Ordinance (chapter 15.34 of the Oakland Municipal Code) by submitting a Construction and Demolition Waste Reduction and Recycling Plan (WRRP) for City review and approval, and shall implement the approved WRRP. Projects subject to these requirements include all new construction, renovations/alterations/modifications with construction values of $50,000 or more (except R-3 type construction), and all demolition (including soft demolition) except demolition of type R-3 construction. The WRRP must specify the methods by which the project will divert construction and demolition debris waste from landfill disposal in accordance with current City requirements. The WRRP may be submitted electronically at www.greenhalosystems.com or manually at the City's Green Building Resource Center. Current standards, FAQs, and forms are available on the City's website and in the Green Building Resource Center.	Prior to approval of construction-related permit	Public Works Department, Environmental Services Division
SCA UTIL-2 (Standard Condition of Approval 90) *Underground Utilities* Requirement: The project applicant shall place underground all new utilities serving the project and under the control of the project applicant and the City, including all new gas, electric, cable, and telephone facilities, fire alarm conduits, street light wiring, and other wiring, conduits, and similar facilities. The new facilities shall be placed underground along the project's street frontage and from the project structures to the point of service. Utilities under the control of other agencies, such as PG&E, shall be placed underground if feasible. All utilities shall be installed in accordance with standard specifications of the serving utilities.	During construction.	City of Oakland Bureau of Building
SCA UTIL-3 (Standard Condition of Approval 91) *Recycling Collection and Storage Space* Requirement: 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	Prior to approval of construction-related permit.	City of Oakland Bureau of Planning (Initial Approval); City of Oakland Bureau of Building (Monitoring/Inspection).

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
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.		
SCA UTIL-4 (Standard Condition of Approval 94) *Sanitary Sewer System* Requirement: 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.	Prior to approval of construction-related permit.	City of Oakland Public Works Department, Department of Engineering and Construction (Initial Approval).
SCA UTIL-5 (Standard Condition of Approval 95) *Storm Drain System* Requirement: The project storm drainage system shall be designed in accordance with the City of Oakland's Storm Drainage Design Guidelines. To the maximum extent practicable, peak stormwater runoff from the project site shall be reduced by at least 25 percent compared to the pre-project condition.	Prior to approval of construction-related permit.	City of Oakland Public Works Department, Department of Engineering and Construction (Initial Approval).
SCA UTIL-6 (Standard Condition of Approval 96) *Recycled Water* Requirement: Pursuant to section 16.08.030 of the Oakland Municipal Code, the project applicant shall provide for the use of recycled water in the project for feasible recycled water uses unless the City determines that there is a higher and better use for the recycled water, the use of recycled water is not economically justified for the project, or the use of recycled water is not financially or technically feasible for the project. Feasible recycled water uses may include, but are not limited to, landscape irrigation, commercial and industrial process use, and toilet and urinal flushing in non-residential buildings. The project applicant shall contact the New Business Office of the East Bay Municipal Utility District (EBMUD) for a recycled water feasibility assessment by the Office of Water Recycling. If recycled water is to be provided in the project, the project drawings submitted for construction-related permits shall include the proposed recycled water system and the project applicant shall install the recycled water system during construction.	Prior to approval of construction-related permit.	City of Oakland Bureau of Building

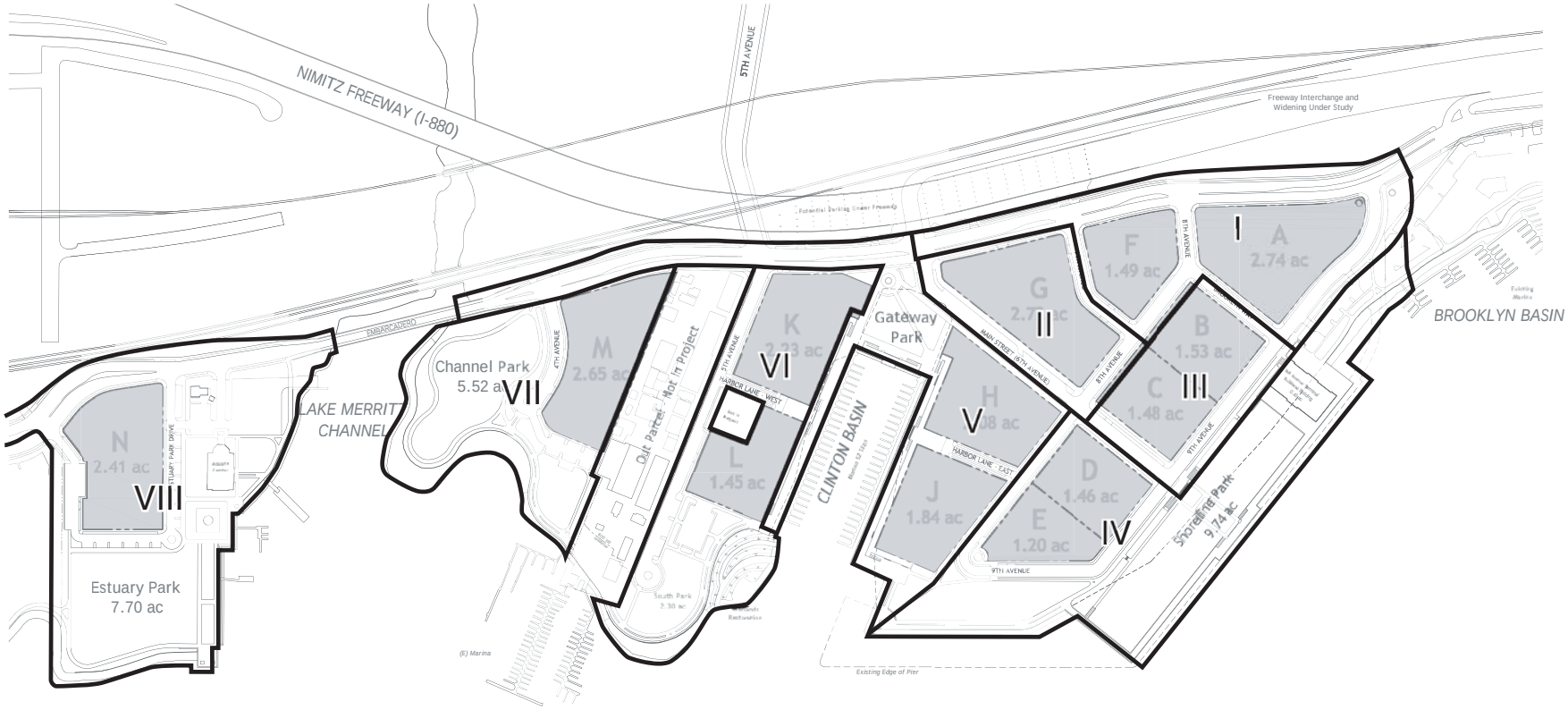
Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
SCA UTIL-7 (Standard Condition of Approval 97) *Water Efficient Landscape Ordinance (WELO)* Requirement: The project applicant shall comply with California's Water Efficient Landscape Ordinance (WELO) in order to reduce landscape water usage. For the specific ordinance requirements, see the link below: http://www.water.ca.gov/wateruseefficiency/landscapeordinance/docs/Title%2023%20extract%20-%20Official%20CCR%20pages.pdf For any landscape project with an aggregate (total noncontiguous) landscape area equal to 2,500 sq. ft. or less, the project applicant may implement either the Prescriptive Measures or the Performance Measures, of, and in accordance with the California's Model Water Efficient Landscape Ordinance. For any landscape project with an aggregate (total noncontiguous) landscape area over 2,500 sq. ft., the project applicant shall implement the Performance Measures in accordance with the WELO. *Prescriptive Measures:* Prior to construction, the project applicant shall submit the Project Information (detailed below) and documentation showing compliance with Appendix D of California's Model Water Efficient Landscape Ordinance (see page 38.14(g) in the link above). *Performance Measures:* Prior to construction, the project applicant shall prepare and submit a Landscape Documentation Package for review and approval, which includes the following a. Project Information: i. Date, ii. Applicant and property owner name, iii. Project address, iv. Total landscape area, v. Project type (new, rehabilitated, cemetery, or home owner installed), vi. Water supply type and water purveyor, vii. Checklist of documents in the package, and viii Project contacts ix Applicant signature and date with the statement: "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package." b. Water Efficient Landscape Worksheet	Prior to approval of construction-related permit.	Initial Approval: Bureau of Planning Monitoring/Inspection: Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
i. Hydrozone Information Table ii. Water Budget Calculations with Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use c. Soil Management Report d. Landscape Design Plan e. Irrigation Design Plan, and f. Grading Plan Upon installation of the landscaping and irrigation systems, and prior to the final of a construction-related permit, the Project applicant shall submit a Certificate of Completion (see page 38.6 in the link above) and landscape and irrigation maintenance schedule for review and approval by the City. The Certificate of Completion shall also be submitted to the local water purveyor and property owner or his or her designee.		
Also **SCA HYD-3, Erosion and Sedimentation Control Plan for Construction**. See *Hydrology and Water Quality*, above.		
Also **SCA HYD-4, State Construction General Permit**. See *Hydrology and Water Quality*, above.		
Also **SCA HYD-5, NPDES C.3 Stormwater Requirements for Regulated Projects.** See *Hydrology and Water Quality*, above.		
Also **SCA REC-1, Access to Parks and Open Space**. See *Public Services and Recreation*, above.		
N. Greenhouse Gas Emissions and Global Climate Change		
SCA GHG-1 (Standard Condition of Approval 47) *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.	Prior to approval of construction-related permit	City of Oakland Bureau of Planning (Initial Approval) City of Oakland Bureau of Building (Monitoring/Inspection.
b) For physical ECAP Consistency Checklist measures to be incorporated into the design of the project, the measures shall be implemented during construction.	During construction	City of Oakland Bureau of Planning (Initial Approval)

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Responsibility**
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.	Ongoing	City of Oakland Bureau of Building (Monitoring/Inspection. City of Oakland Bureau of Planning.
Also **SCA AES-3, Landscape Plan**. See *Aesthetics*, above.		
Also **SCAs AIR-2, Criteria Air Pollutant Controls - Construction Related.** See *Air Quality*, above.		
Also **SCAs AIR-3, Diesel Particulate Matter Controls - Construction Related.** See *Air Quality*, above.		
Also **SCA UTIL-1, Construction and Demolition Waste Reduction and Recycling**. See *Utilities and Service Systems*, above.		
Also **SCA UTIL-7 Water Efficient Landscape Ordinance (WELO)**. See *Utilities and Service Systems*, above.		
O. Agriculture and Forestry Resources		
No 2009 EIR Mitigation Measures or new SCAs apply to the proposed Project.		

APPENDIX A

Estuary Park Conceptual Plans and Phasing Plan from the 2009 EIR and 2022 Planned Unit Development Exhibit



	Development Areas (ac.)	Retail Areas (sq. ft.)	Total Units
I	4.2	15,000	539
II	2.7	42,000	280
III	3.0	12,000	320
IV	2.7	14,000	244
V	3.9	47,000	627
VI	3.7	32,000	454
VII	2.7	5,000	334
VIII	2.4	15,000	300
Total	**25.3**	**200,000**	**3,100**

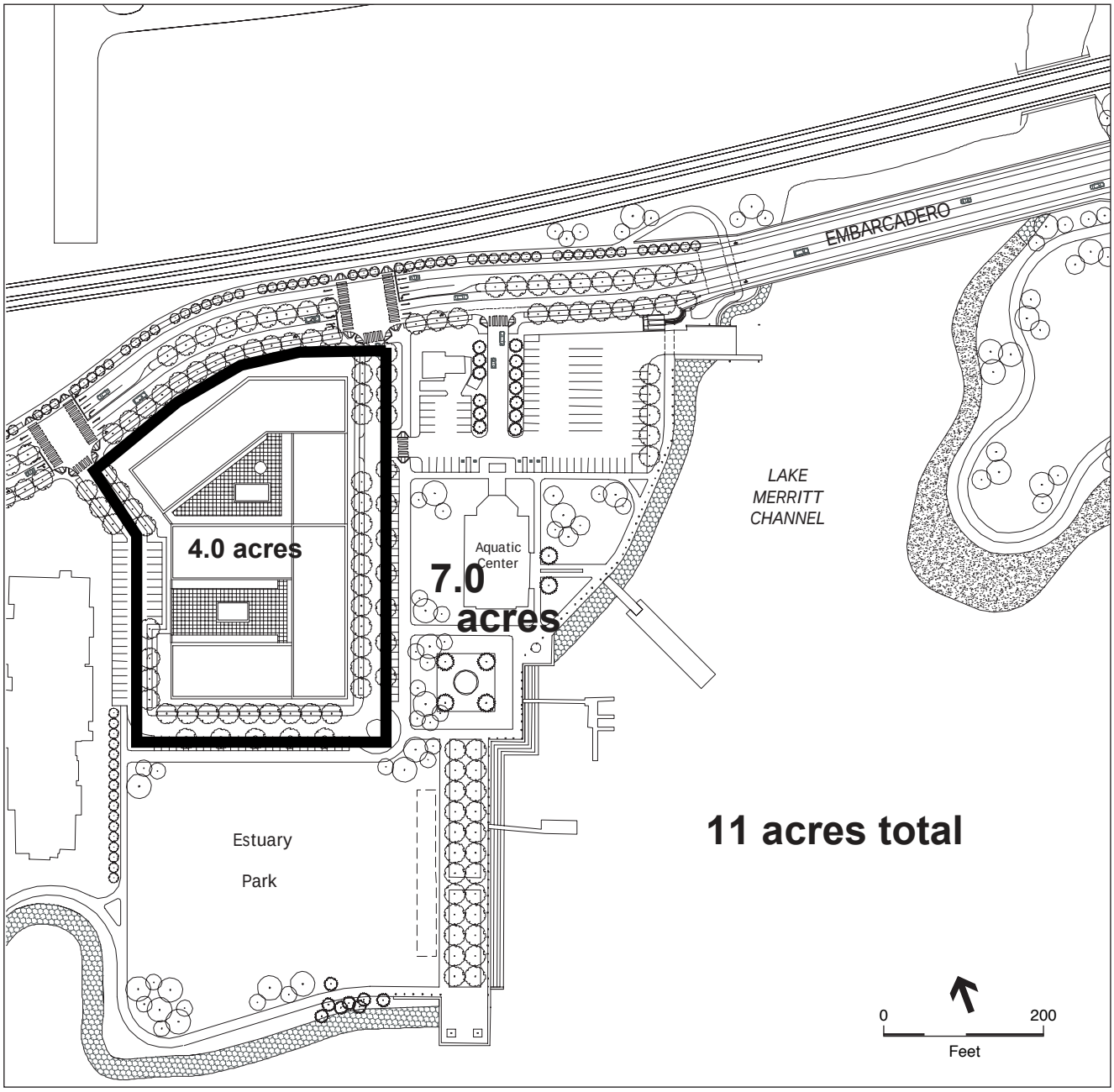
0 400
Feet

SOURCE: ROMA Design Group

Oak to Ninth Avenue . 202622

Figure III-8
Proposed Phasing Plan
(2005 Draft EIR)

Original figure annotated to show Estuary Park boundary and acreage studied in the 2005 Draft EIR.



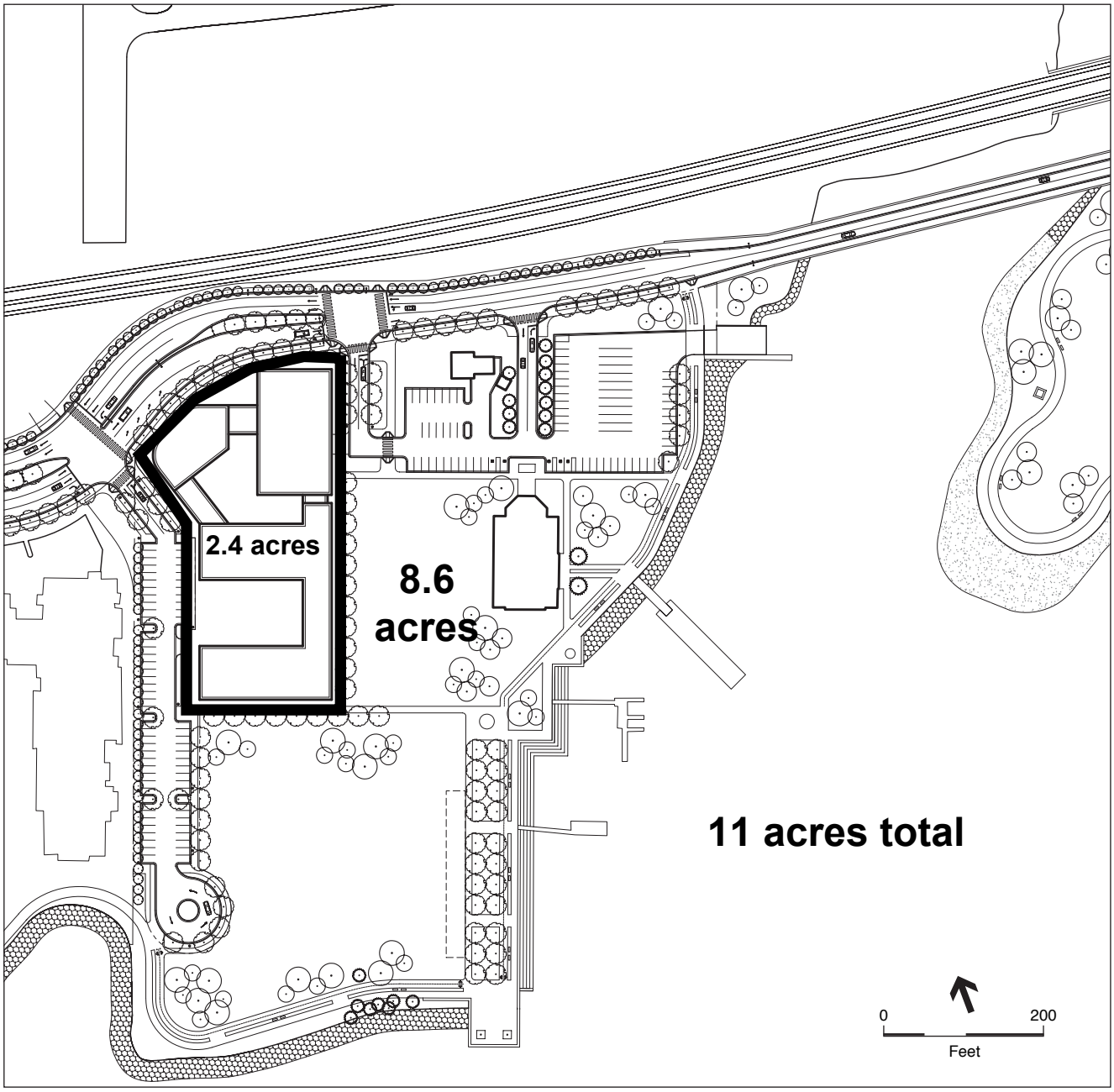
SOURCE: ROMA Design Group

Oak to Ninth Avenue . 202622

Figure II-2
Project Parcel N Site Plan
(as analyzed in DEIR)

Appendix Exhibit A-3

Original figure annotated to show Estuary Park boundary and acreage studied in the 2006 Final EIR.



SOURCE: ROMA Design Group in association with
MVE Architects, Moffatt & Nichol and BKF Engineers

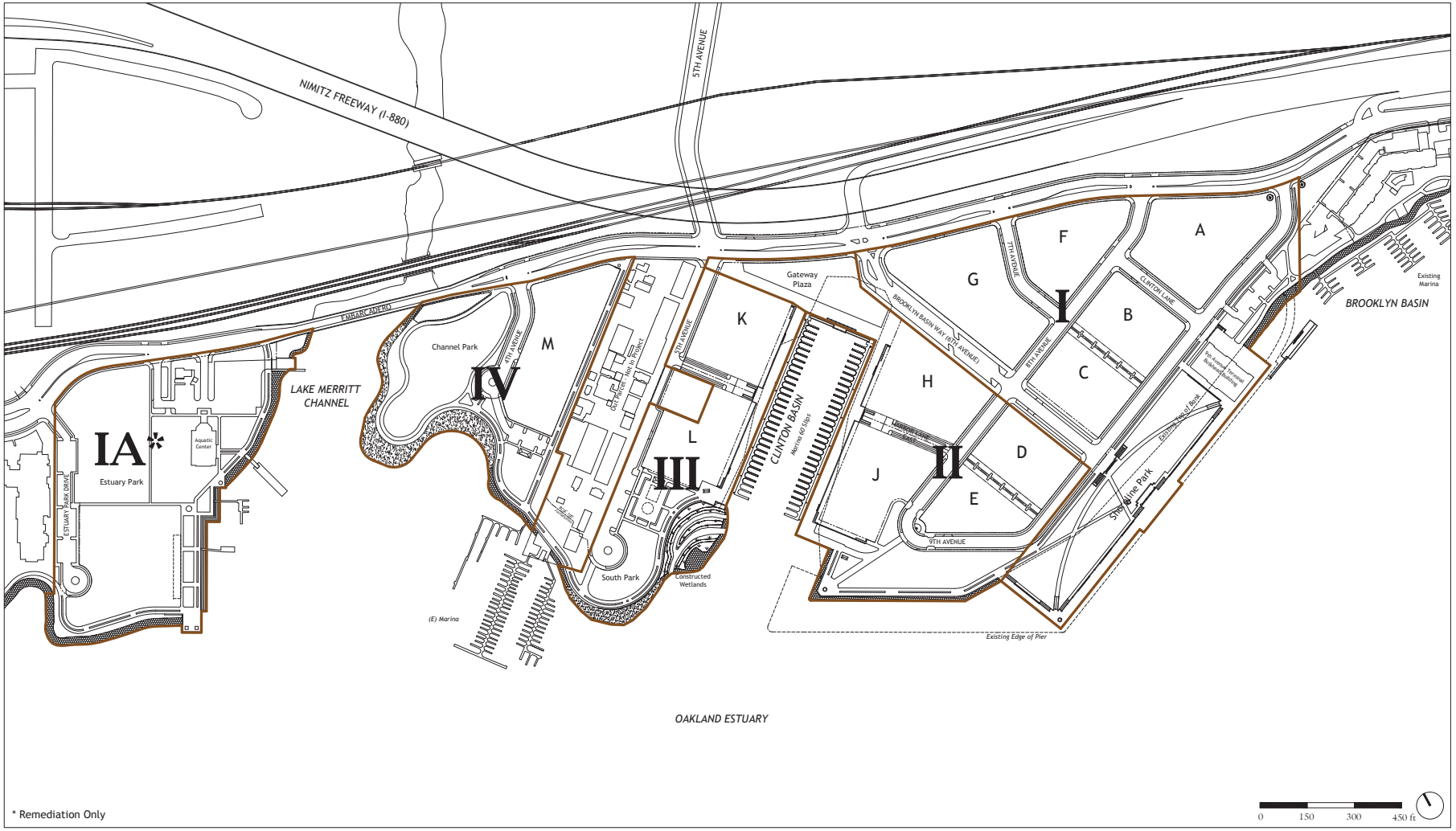
Oak to Ninth Avenue . 202622

Figure II-1

Variant Parcel N Site Plan

Excerpt from original figure and annotated to show Estuary Park boundary and acreage studied in the 2006 Addendum #1 to the Final EIR.

Figure II-1
Illustrative Plan of "No Parcel N" Development Scenario



PHASING PLAN

Brooklyn Basin - Oak to 9th Development Plan

Prepared for Oakland Harbor Partners by ROMA Design Group in association with MVE Architects, Moffatt & Nichol and BKF Engineers

AMENDED NOVEMBER 5, 2014
PROPOSED MARCH 2018 AMENDMENT
REVISION 2, FEBRUARY 2022
APRIL 2022 REVISION

SHEET NO.
1.5

APPENDIX B

Air Quality Technical Data

Appendix B
Air Quality Analysis

ESA

B-1 CalEEMod Output

Estuary Park Master Plan Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Estuary Park Master Plan
Construction Start Date	1/1/2024
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.90
Precipitation (days)	1.20
Location	37.789836234057944, -122.2673217042723
County	Alameda
City	Oakland
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1469
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.19

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

City Park	1.00	Acre	5.59	0.00	0.00	0.00	—	—
Other Asphalt Surfaces	47.5	1000sqft	1.09	0.00	0.00	0.00	—	—
Other Non-Asphalt Surfaces	38.5	1000sqft	0.88	0.00	0.00	0.00	—	—
Other Non-Asphalt Surfaces	416	1000sqft	9.54	0.00	0.00	0.00	—	—
Health Club	1.85	1000sqft	0.04	1,850	0.00	0.00	—	—
User Defined Recreational	1.00	User Defined Unit	1.01	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.42	79.5	36.1	33.8	0.06	1.60	7.87	9.47	1.47	3.99	5.46	—	6,806	6,806	0.27	0.07	1.04	6,831
Mit.	0.72	79.4	4.48	36.3	0.06	0.12	7.87	7.97	0.12	3.99	4.09	—	6,806	6,806	0.27	0.07	1.04	6,831
% Reduced	84%	< 0.5%	88%	-7%	—	92%	—	16%	92%	—	25%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	4.41	3.71	36.2	33.7	0.06	1.60	7.87	9.47	1.47	3.99	5.46	—	6,791	6,791	0.27	0.30	0.16	6,816
Mit.	1.35	1.14	8.38	36.2	0.06	0.23	7.87	7.97	0.22	3.99	4.09	—	6,791	6,791	0.27	0.30	0.16	6,816
% Reduced	69%	69%	77%	-7%	—	86%	—	16%	85%	—	25%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.78	2.34	22.0	20.6	0.04	0.94	3.50	4.44	0.86	1.62	2.48	—	4,336	4,336	0.17	0.07	0.57	4,363
Mit.	0.54	0.51	3.17	21.4	0.04	0.09	3.50	3.59	0.09	1.62	1.71	—	4,336	4,336	0.17	0.07	0.57	4,363
% Reduced	81%	78%	86%	-4%	—	90%	—	19%	89%	—	31%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.51	0.43	4.02	3.77	0.01	0.17	0.64	0.81	0.16	0.30	0.45	—	718	718	0.03	0.01	0.09	722
Mit.	0.10	0.09	0.58	3.90	0.01	0.02	0.64	0.66	0.02	0.30	0.31	—	718	718	0.03	0.01	0.09	722
% Reduced	81%	78%	86%	-4%	—	90%	—	19%	89%	—	31%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.42	3.71	36.1	33.8	0.06	1.60	7.87	9.47	1.47	3.99	5.46	—	6,806	6,806	0.27	0.07	1.04	6,831
2025	1.01	79.5	7.49	10.6	0.01	0.35	0.15	0.49	0.32	0.03	0.35	—	1,664	1,664	0.06	0.02	0.61	1,671
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.41	3.71	36.2	33.7	0.06	1.60	7.87	9.47	1.47	3.99	5.46	—	6,791	6,791	0.27	0.30	0.16	6,816
2025	1.35	1.13	10.5	13.1	0.02	0.43	0.15	0.49	0.40	0.03	0.40	—	2,412	2,412	0.10	0.02	0.02	2,421

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.78	2.34	22.0	20.6	0.04	0.94	3.50	4.44	0.86	1.62	2.48	—	4,336	4,336	0.17	0.07	0.57	4,363
2025	0.31	0.71	2.35	3.22	< 0.005	0.11	0.04	0.14	0.10	0.01	0.11	—	522	522	0.02	0.01	0.07	524
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.51	0.43	4.02	3.77	0.01	0.17	0.64	0.81	0.16	0.30	0.45	—	718	718	0.03	0.01	0.09	722
2025	0.06	0.13	0.43	0.59	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	86.4	86.4	< 0.005	< 0.005	0.01	86.8

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.72	0.71	4.48	36.3	0.06	0.12	7.87	7.97	0.12	3.99	4.09	—	6,806	6,806	0.27	0.07	1.04	6,831
2025	0.21	79.4	1.97	11.3	0.01	0.03	0.15	0.17	0.03	0.03	0.06	—	1,664	1,664	0.06	0.02	0.61	1,671
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.35	1.14	8.38	36.2	0.06	0.23	7.87	7.97	0.22	3.99	4.09	—	6,791	6,791	0.27	0.30	0.16	6,816
2025	0.35	0.33	2.84	14.9	0.02	0.08	0.15	0.17	0.07	0.03	0.08	—	2,412	2,412	0.10	0.02	0.02	2,421
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.54	0.51	3.17	21.4	0.04	0.09	3.50	3.59	0.09	1.62	1.71	—	4,336	4,336	0.17	0.07	0.57	4,363
2025	0.07	0.51	0.63	3.45	< 0.005	0.01	0.04	0.05	0.01	0.01	0.02	—	522	522	0.02	0.01	0.07	524
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.10	0.09	0.58	3.90	0.01	0.02	0.64	0.66	0.02	0.30	0.31	—	718	718	0.03	0.01	0.09	722
2025	0.01	0.09	0.11	0.63	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	86.4	86.4	< 0.005	< 0.005	0.01	86.8

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.24	0.34	0.17	1.59	< 0.005	< 0.005	0.33	0.34	< 0.005	0.08	0.09	5.94	416	422	0.61	0.02	1.33	444
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.21	0.32	0.20	1.48	< 0.005	< 0.005	0.33	0.34	< 0.005	0.08	0.09	5.94	394	400	0.62	0.02	0.04	421
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.20	0.30	0.17	1.32	< 0.005	< 0.005	0.30	0.31	< 0.005	0.08	0.08	5.94	363	369	0.61	0.02	0.53	390
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	0.06	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	0.98	60.1	61.1	0.10	< 0.005	0.09	64.5

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.22	0.20	0.15	1.50	< 0.005	< 0.005	0.33	0.34	< 0.005	0.08	0.09	—	378	378	0.02	0.02	1.33	385
Area	0.01	0.14	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.33	0.33	< 0.005	< 0.005	—	0.33
Energy	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	37.2	37.2	< 0.005	< 0.005	—	37.4
Water	—	—	—	—	—	—	—	—	—	—	—	0.21	0.40	0.61	0.02	< 0.005	—	1.30
Waste	—	—	—	—	—	—	—	—	—	—	—	5.73	0.00	5.73	0.57	0.00	—	20.0

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.24	0.34	0.17	1.59	< 0.005	< 0.005	0.33	0.34	< 0.005	0.08	0.09	5.94	416	422	0.61	0.02	1.33	444
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.20	0.18	1.46	< 0.005	< 0.005	0.33	0.34	< 0.005	0.08	0.09	—	357	357	0.02	0.02	0.03	363
Area	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	37.2	37.2	< 0.005	< 0.005	—	37.4
Water	—	—	—	—	—	—	—	—	—	—	—	0.21	0.40	0.61	0.02	< 0.005	—	1.30
Waste	—	—	—	—	—	—	—	—	—	—	—	5.73	0.00	5.73	0.57	0.00	—	20.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.21	0.32	0.20	1.48	< 0.005	< 0.005	0.33	0.34	< 0.005	0.08	0.09	5.94	394	400	0.62	0.02	0.04	421
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.19	0.17	0.15	1.26	< 0.005	< 0.005	0.30	0.31	< 0.005	0.08	0.08	—	325	325	0.02	0.02	0.52	331
Area	0.01	0.13	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.16	0.16	< 0.005	< 0.005	—	0.16
Energy	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	37.2	37.2	< 0.005	< 0.005	—	37.4
Water	—	—	—	—	—	—	—	—	—	—	—	0.21	0.40	0.61	0.02	< 0.005	—	1.30
Waste	—	—	—	—	—	—	—	—	—	—	—	5.73	0.00	5.73	0.57	0.00	—	20.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.20	0.30	0.17	1.32	< 0.005	< 0.005	0.30	0.31	< 0.005	0.08	0.08	5.94	363	369	0.61	0.02	0.53	390
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.03	0.03	0.03	0.23	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	—	53.8	53.8	< 0.005	< 0.005	0.09	54.8
Area	< 0.005	0.02	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.03	0.03	< 0.005	< 0.005	—	0.03
Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.17	6.17	< 0.005	< 0.005	—	6.20
Water	—	—	—	—	—	—	—	—	—	—	—	0.03	0.07	0.10	< 0.005	< 0.005	—	0.22
Waste	—	—	—	—	—	—	—	—	—	—	—	0.95	0.00	0.95	0.09	0.00	—	3.32
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.04	0.06	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	0.98	60.1	61.1	0.10	< 0.005	0.09	64.5

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.22	0.20	0.15	1.50	< 0.005	< 0.005	0.33	0.34	< 0.005	0.08	0.09	—	378	378	0.02	0.02	1.33	385
Area	0.01	0.14	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.33	0.33	< 0.005	< 0.005	—	0.33
Energy	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	37.2	37.2	< 0.005	< 0.005	—	37.4
Water	—	—	—	—	—	—	—	—	—	—	—	0.21	0.40	0.61	0.02	< 0.005	—	1.30
Waste	—	—	—	—	—	—	—	—	—	—	—	5.73	0.00	5.73	0.57	0.00	—	20.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.24	0.34	0.17	1.59	< 0.005	< 0.005	0.33	0.34	< 0.005	0.08	0.09	5.94	416	422	0.61	0.02	1.33	444
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.20	0.18	1.46	< 0.005	< 0.005	0.33	0.34	< 0.005	0.08	0.09	—	357	357	0.02	0.02	0.03	363
Area	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	37.2	37.2	< 0.005	< 0.005	—	37.4
Water	—	—	—	—	—	—	—	—	—	—	—	0.21	0.40	0.61	0.02	< 0.005	—	1.30
Waste	—	—	—	—	—	—	—	—	—	—	—	5.73	0.00	5.73	0.57	0.00	—	20.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.21	0.32	0.20	1.48	< 0.005	< 0.005	0.33	0.34	< 0.005	0.08	0.09	5.94	394	400	0.62	0.02	0.04	421
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.19	0.17	0.15	1.26	< 0.005	< 0.005	0.30	0.31	< 0.005	0.08	0.08	—	325	325	0.02	0.02	0.52	331
Area	0.01	0.13	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.16	0.16	< 0.005	< 0.005	—	0.16
Energy	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	37.2	37.2	< 0.005	< 0.005	—	37.4
Water	—	—	—	—	—	—	—	—	—	—	—	0.21	0.40	0.61	0.02	< 0.005	—	1.30

Waste	—	—	—	—	—	—	—	—	—	—	—	5.73	0.00	5.73	0.57	0.00	—	20.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.20	0.30	0.17	1.32	< 0.005	< 0.005	0.30	0.31	< 0.005	0.08	0.08	5.94	363	369	0.61	0.02	0.53	390
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.03	0.03	0.03	0.23	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	—	53.8	53.8	< 0.005	< 0.005	0.09	54.8
Area	< 0.005	0.02	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.03	0.03	< 0.005	< 0.005	—	0.03
Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.17	6.17	< 0.005	< 0.005	—	6.20
Water	—	—	—	—	—	—	—	—	—	—	—	0.03	0.07	0.10	< 0.005	< 0.005	—	0.22
Waste	—	—	—	—	—	—	—	—	—	—	—	0.95	0.00	0.95	0.09	0.00	—	3.32
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.04	0.06	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	0.98	60.1	61.1	0.10	< 0.005	0.09	64.5

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.25	1.05	10.3	9.47	0.01	0.46	—	0.46	0.42	—	0.42	—	1,523	1,523	0.06	0.01	—	1,529
Dust From Material Movement	—	—	—	—	—	—	2.21	2.21	—	1.13	1.13	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.19	1.89	1.73	< 0.005	0.08	—	0.08	0.08	—	0.08	—	252	252	0.01	< 0.005	—	253
Dust From Material Movement	—	—	—	—	—	—	0.40	0.40	—	0.21	0.21	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.83	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	182	182	< 0.005	0.01	0.78	184

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.15	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	119	119	0.01	0.02	0.26	125
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.72	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	168	168	< 0.005	0.01	0.02	170
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.15	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	119	119	0.01	0.02	0.01	125
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.20	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	48.7	48.7	< 0.005	< 0.005	0.10	49.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.2	34.2	< 0.005	0.01	0.03	35.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.07	8.07	< 0.005	< 0.005	0.02	8.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.67	5.67	< 0.005	< 0.005	0.01	5.95

3.2. Site Preparation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	0.21	0.04	—	5,314

Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.14	0.74	8.14	0.01	0.03	—	0.03	0.03	—	0.03	—	1,523	1,523	0.06	0.01	—	1,529
Dust From Material Movement	—	—	—	—	—	—	2.21	2.21	—	1.13	1.13	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.14	1.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	252	252	0.01	< 0.005	—	253
Dust From Material Movement	—	—	—	—	—	—	0.40	0.40	—	0.21	0.21	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.83	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	182	182	< 0.005	0.01	0.78	184
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.15	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	119	119	0.01	0.02	0.26	125
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.72	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	168	168	< 0.005	0.01	0.02	170
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.15	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	119	119	0.01	0.02	0.01	125
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.20	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	48.7	48.7	< 0.005	< 0.005	0.10	49.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.2	34.2	< 0.005	0.01	0.03	35.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.07	8.07	< 0.005	< 0.005	0.02	8.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.67	5.67	< 0.005	< 0.005	0.01	5.95

3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	4.19	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.19	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15	0.96	9.39	8.27	0.02	0.40	—	0.40	0.36	—	0.36	—	1,808	1,808	0.07	0.01	—	1,814
Dust From Material Movement	—	—	—	—	—	—	0.98	0.98	—	0.39	0.39	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.18	1.71	1.51	< 0.005	0.07	—	0.07	0.07	—	0.07	—	299	299	0.01	< 0.005	—	300
Dust From Material Movement	—	—	—	—	—	—	0.18	0.18	—	0.07	0.07	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.95	0.00	0.00	0.19	0.19	0.00	0.05	0.05	—	207	207	< 0.005	0.01	0.89	211
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.82	0.00	0.00	0.19	0.19	0.00	0.05	0.05	—	192	192	< 0.005	0.01	0.02	195
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.22	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	53.0	53.0	< 0.005	< 0.005	0.10	53.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.78	8.78	< 0.005	< 0.005	0.02	8.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.18	1.21	9.68	0.02	0.03	—	0.03	0.03	—	0.03	—	1,808	1,808	0.07	0.01	—	1,814
Dust From Material Movement	—	—	—	—	—	—	0.98	0.98	—	0.39	0.39	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.22	1.77	< 0.005	0.01	—	0.01	0.01	—	0.01	—	299	299	0.01	< 0.005	—	300

Dust From Material Movement	—	—	—	—	—	—	0.18	0.18	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.95	0.00	0.00	0.19	0.19	0.00	0.05	0.05	—	207	207	< 0.005	0.01	0.89	211
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.82	0.00	0.00	0.19	0.19	0.00	0.05	0.05	—	192	192	< 0.005	0.01	0.02	195
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.22	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	53.0	53.0	< 0.005	< 0.005	0.10	53.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.78	8.78	< 0.005	< 0.005	0.02	8.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. South shore beach activity (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.04	1.71	12.7	12.8	0.04	0.49	—	0.49	0.45	—	0.45	—	4,198	4,198	0.17	0.03	—	4,212
Dust From Material Movement	—	—	—	—	—	—	0.57	0.57	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.57	1.58	< 0.005	0.06	—	0.06	0.06	—	0.06	—	518	518	0.02	< 0.005	—	519
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.29	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	85.7	85.7	< 0.005	< 0.005	—	86.0
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.24	0.24	2.77	0.00	0.00	0.66	0.66	0.00	0.15	0.15	—	649	649	0.01	0.03	0.08	657
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.11	0.03	1.95	0.74	0.01	0.03	0.39	0.42	0.03	0.11	0.14	—	1,508	1,508	0.08	0.24	0.09	1,581
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.33	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	80.6	80.6	< 0.005	< 0.005	0.16	81.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.24	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	186	186	0.01	0.03	0.18	195
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.3	13.3	< 0.005	< 0.005	0.03	13.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.8	30.8	< 0.005	< 0.005	0.03	32.3

3.6. South shore beach activity (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99	0.87	6.19	17.6	0.04	0.20	—	0.20	0.19	—	0.19	—	4,198	4,198	0.17	0.03	—	4,212
Dust From Material Movement	—	—	—	—	—	—	0.57	0.57	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.11	0.76	2.17	< 0.005	0.03	—	0.03	0.02	—	0.02	—	518	518	0.02	< 0.005	—	519
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.40	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	85.7	85.7	< 0.005	< 0.005	—	86.0
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.24	0.24	2.77	0.00	0.00	0.66	0.66	0.00	0.15	0.15	—	649	649	0.01	0.03	0.08	657
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.11	0.03	1.95	0.74	0.01	0.03	0.39	0.42	0.03	0.11	0.14	—	1,508	1,508	0.08	0.24	0.09	1,581
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.33	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	80.6	80.6	< 0.005	< 0.005	0.16	81.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.24	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	186	186	0.01	0.03	0.18	195
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.3	13.3	< 0.005	< 0.005	0.03	13.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.8	30.8	< 0.005	< 0.005	0.03	32.3

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.40	0.46	< 0.005	0.02	—	0.02	0.02	—	0.02	—	84.5	84.5	< 0.005	< 0.005	—	84.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.0	14.0	< 0.005	< 0.005	—	14.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.47	7.47	< 0.005	< 0.005	< 0.005	7.57
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.18	7.18	< 0.005	< 0.005	< 0.005	7.51
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.27
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.25	0.25	< 0.005	< 0.005	< 0.005	0.26
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.83	14.8	0.02	0.08	—	0.08	0.07	—	0.07	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.52	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	84.5	84.5	< 0.005	< 0.005	—	84.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.0	14.0	< 0.005	< 0.005	—	14.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.47	7.47	< 0.005	< 0.005	< 0.005	7.57
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.18	7.18	< 0.005	< 0.005	< 0.005	7.51
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.27
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.25	0.25	< 0.005	< 0.005	< 0.005	0.26
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.06	0.05	0.49	0.61	< 0.005	0.02	—	0.02	0.02	—	0.02	—	113	113	< 0.005	< 0.005	—	113
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.6	18.6	< 0.005	< 0.005	—	18.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.33	7.33	< 0.005	< 0.005	< 0.005	7.42
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.07	7.07	< 0.005	< 0.005	< 0.005	7.38
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.35	0.35	< 0.005	< 0.005	< 0.005	0.35
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.06
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.08	—	0.08	0.07	—	0.07	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.13	0.70	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	113	113	< 0.005	< 0.005	—	113
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.6	18.6	< 0.005	< 0.005	—	18.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.33	7.33	< 0.005	< 0.005	< 0.005	7.42
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.07	7.07	< 0.005	< 0.005	< 0.005	7.38

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.35	0.35	< 0.005	< 0.005	< 0.005	0.35
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.06
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.20	1.84	2.46	< 0.005	0.09	—	0.09	0.08	—	0.08	—	373	373	0.02	< 0.005	—	374
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.34	0.45	< 0.005	0.02	—	0.02	0.01	—	0.01	—	61.7	61.7	< 0.005	< 0.005	—	61.9
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.66	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	153	153	< 0.005	0.01	0.61	155
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.57	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	141	141	< 0.005	0.01	0.02	143
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	35.1	35.1	< 0.005	< 0.005	0.06	35.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.81	5.81	< 0.005	< 0.005	0.01	5.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.48	2.61	< 0.005	0.01	—	0.01	0.01	—	0.01	—	373	373	0.02	< 0.005	—	374
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	61.7	61.7	< 0.005	< 0.005	—	61.9
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.66	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	153	153	< 0.005	0.01	0.61	155
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.57	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	141	141	< 0.005	0.01	0.02	143
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	35.1	35.1	< 0.005	< 0.005	0.06	35.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.81	5.81	< 0.005	< 0.005	0.01	5.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	79.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.73	0.73	< 0.005	< 0.005	—	0.73
Architectural Coatings	—	0.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.58	1.58	< 0.005	< 0.005	0.01	1.60
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Architectural Coating (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	79.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.73	0.73	< 0.005	< 0.005	—	0.73
Architectural Coatings	—	0.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.58	1.58	< 0.005	< 0.005	0.01	1.60
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.01	0.01	0.01	0.05	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	13.1	13.1	< 0.005	< 0.005	0.05	13.3
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Health Club	0.21	0.20	0.15	1.44	< 0.005	< 0.005	0.32	0.33	< 0.005	0.08	0.08	—	365	365	0.02	0.02	1.28	371
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.22	0.20	0.15	1.50	< 0.005	< 0.005	0.33	0.34	< 0.005	0.08	0.09	—	378	378	0.02	0.02	1.33	385
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.01	0.01	0.01	0.05	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	< 0.005	12.6
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Health Club	0.20	0.19	0.17	1.41	< 0.005	< 0.005	0.32	0.33	< 0.005	0.08	0.08	—	344	344	0.02	0.02	0.03	350
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.21	0.20	0.18	1.46	< 0.005	< 0.005	0.33	0.34	< 0.005	0.08	0.09	—	357	357	0.02	0.02	0.03	363
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.08	1.08	< 0.005	< 0.005	< 0.005	1.10
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Health Club	0.03	0.03	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	52.7	52.7	< 0.005	< 0.005	0.08	53.7
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Total	0.03	0.03	0.03	0.23	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	—	53.8	53.8	< 0.005	< 0.005	0.09	54.8

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.01	0.01	0.01	0.05	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	13.1	13.1	< 0.005	< 0.005	0.05	13.3
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Health Club	0.21	0.20	0.15	1.44	< 0.005	< 0.005	0.32	0.33	< 0.005	0.08	0.08	—	365	365	0.02	0.02	1.28	371
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.22	0.20	0.15	1.50	< 0.005	< 0.005	0.33	0.34	< 0.005	0.08	0.09	—	378	378	0.02	0.02	1.33	385
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.01	0.01	0.01	0.05	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	< 0.005	12.6
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Health Club	0.20	0.19	0.17	1.41	< 0.005	< 0.005	0.32	0.33	< 0.005	0.08	0.08	—	344	344	0.02	0.02	0.03	350

User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.21	0.20	0.18	1.46	< 0.005	< 0.005	0.33	0.34	< 0.005	0.08	0.09	—	357	357	0.02	0.02	0.03	363
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.08	1.08	< 0.005	< 0.005	< 0.005	1.10
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Health Club	0.03	0.03	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	52.7	52.7	< 0.005	< 0.005	0.08	53.7
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.03	0.03	0.03	0.23	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	—	53.8	53.8	< 0.005	< 0.005	0.09	54.8

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	11.3	11.3	< 0.005	< 0.005	—	11.4
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	11.3	11.3	< 0.005	< 0.005	—	11.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	11.3	11.3	< 0.005	< 0.005	—	11.4
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	11.3	11.3	< 0.005	< 0.005	—	11.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	1.87	1.87	< 0.005	< 0.005	—	1.89

User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1.87	1.87	< 0.005	< 0.005	—	1.89

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	11.3	11.3	< 0.005	< 0.005	—	11.4
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	11.3	11.3	< 0.005	< 0.005	—	11.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	11.3	11.3	< 0.005	< 0.005	—	11.4
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	11.3	11.3	< 0.005	< 0.005	—	11.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	1.87	1.87	< 0.005	< 0.005	—	1.89
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1.87	1.87	< 0.005	< 0.005	—	1.89

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.0	26.0	< 0.005	< 0.005	—	26.0
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.0	26.0	< 0.005	< 0.005	—	26.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.0	26.0	< 0.005	< 0.005	—	26.0
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.0	26.0	< 0.005	< 0.005	—	26.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.30	4.30	< 0.005	< 0.005	—	4.31
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.30	4.30	< 0.005	< 0.005	—	4.31

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.0	26.0	< 0.005	< 0.005	—	26.0
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.0	26.0	< 0.005	< 0.005	—	26.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.0	26.0	< 0.005	< 0.005	—	26.0
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.0	26.0	< 0.005	< 0.005	—	26.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Health Club	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.30	4.30	< 0.005	< 0.005	—	4.31
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.30	4.30	< 0.005	< 0.005	—	4.31

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.33	0.33	< 0.005	< 0.005	—	0.33
Total	0.01	0.14	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.33	0.33	< 0.005	< 0.005	—	0.33
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.03	0.03	< 0.005	< 0.005	—	0.03
Total	< 0.005	0.02	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.03	0.03	< 0.005	< 0.005	—	0.03

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.33	0.33	< 0.005	< 0.005	—	0.33
Total	0.01	0.14	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.33	0.33	< 0.005	< 0.005	—	0.33
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landsca Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.03	0.03	< 0.005	< 0.005	—	0.03
Total	< 0.005	0.02	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.03	0.03	< 0.005	< 0.005	—	0.03

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.21	0.40	0.61	0.02	< 0.005	—	1.30
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.21	0.40	0.61	0.02	< 0.005	—	1.30
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.21	0.40	0.61	0.02	< 0.005	—	1.30
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.21	0.40	0.61	0.02	< 0.005	—	1.30
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.03	0.07	0.10	< 0.005	< 0.005	—	0.22
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.03	0.07	0.10	< 0.005	< 0.005	—	0.22

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.21	0.40	0.61	0.02	< 0.005	—	1.30
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.21	0.40	0.61	0.02	< 0.005	—	1.30
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.21	0.40	0.61	0.02	< 0.005	—	1.30
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.21	0.40	0.61	0.02	< 0.005	—	1.30
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.03	0.07	0.10	< 0.005	< 0.005	—	0.22
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.03	0.07	0.10	< 0.005	< 0.005	—	0.22

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	< 0.005	0.00	—	0.16
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	5.68	0.00	5.68	0.57	0.00	—	19.9
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	5.73	0.00	5.73	0.57	0.00	—	20.0

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	< 0.005	0.00	—	0.16
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	5.68	0.00	5.68	0.57	0.00	—	19.9
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	5.73	0.00	5.73	0.57	0.00	—	20.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.01	0.00	0.01	< 0.005	0.00	—	0.03
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.94	0.00	0.94	0.09	0.00	—	3.29
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.95	0.00	0.95	0.09	0.00	—	3.32

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	< 0.005	0.00	—	0.16
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	5.68	0.00	5.68	0.57	0.00	—	19.9
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	5.73	0.00	5.73	0.57	0.00	—	20.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	< 0.005	0.00	—	0.16
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	5.68	0.00	5.68	0.57	0.00	—	19.9
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	5.73	0.00	5.73	0.57	0.00	—	20.0

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.01	0.00	0.01	< 0.005	0.00	—	0.03
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.94	0.00	0.94	0.09	0.00	—	3.29
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.95	0.00	0.95	0.09	0.00	—	3.32

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2024	5/24/2024	5.00	105	—
Grading	Grading	5/25/2024	10/11/2024	5.00	100	—
South shore beach activity	Grading	10/12/2024	12/13/2024	5.00	45.0	—
Building Construction	Building Construction	12/14/2024	1/24/2025	5.00	30.0	—
Paving	Paving	1/25/2025	5/30/2025	5.00	90.0	—
Architectural Coating	Architectural Coating	6/2/2025	6/3/2025	5.00	2.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
South shore beach activity	Excavators	Diesel	Average	2.00	1.77	36.0	0.38
South shore beach activity	Rubber Tired Loaders	Diesel	Average	1.00	0.71	150	0.36
South shore beach activity	Off-Highway Trucks	Diesel	Average	4.00	0.89	376	0.38
South shore beach activity	Off-Highway Trucks	Diesel	Average	2.00	0.88	376	0.38

South shore beach activity	Off-Highway Trucks	Diesel	Average	8.00	1.24	376	0.38
South shore beach activity	Off-Highway Trucks	Diesel	Average	2.00	2.66	376	0.38
South shore beach activity	Other Construction Equipment	Diesel	Average	1.00	0.53	82.0	0.42
South shore beach activity	Excavators	Diesel	Average	2.00	5.10	36.0	0.38
South shore beach activity	Rubber Tired Dozers	Diesel	Average	1.00	1.77	367	0.40
South shore beach activity	Plate Compactors	Diesel	Average	1.00	1.77	8.00	0.43
South shore beach activity	Rubber Tired Loaders	Diesel	Average	1.00	1.77	150	0.36
South shore beach activity	Excavators	Diesel	Average	1.00	0.88	36.0	0.38
South shore beach activity	Paving Equipment	Diesel	Average	1.00	0.88	89.0	0.36
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
South shore beach activity	Excavators	Diesel	Average	1.00	1.77	36.0	0.38
South shore beach activity	Excavators	Diesel	Tier 4 Final	1.00	1.77	36.0	0.38
South shore beach activity	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	0.71	150	0.36
South shore beach activity	Off-Highway Trucks	Diesel	Average	2.00	0.89	376	0.38
South shore beach activity	Off-Highway Trucks	Diesel	Tier 4 Final	2.00	0.89	376	0.38
South shore beach activity	Off-Highway Trucks	Diesel	Tier 4 Final	2.00	0.88	376	0.38
South shore beach activity	Off-Highway Trucks	Diesel	Average	6.00	1.24	376	0.38
South shore beach activity	Off-Highway Trucks	Diesel	Tier 4 Final	2.00	1.24	376	0.38
South shore beach activity	Off-Highway Trucks	Diesel	Tier 4 Final	2.00	2.66	376	0.38
South shore beach activity	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.53	82.0	0.42
South shore beach activity	Excavators	Diesel	Average	1.00	5.10	36.0	0.38
South shore beach activity	Excavators	Diesel	Tier 4 Final	1.00	5.10	36.0	0.38

South shore beach activity	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	1.77	367	0.40
South shore beach activity	Plate Compactors	Diesel	Average	1.00	1.77	8.00	0.43
South shore beach activity	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	1.77	150	0.36
South shore beach activity	Excavators	Diesel	Tier 4 Final	1.00	0.88	36.0	0.38
South shore beach activity	Paving Equipment	Diesel	Tier 4 Final	1.00	0.88	89.0	0.36
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	13.8	LDA,LDT1,LDT2
Site Preparation	Vendor	0.00	7.30	HHDT,MHDT
Site Preparation	Hauling	1.67	20.0	HHDT
Site Preparation	Onsite truck	0.00	—	HHDT

Grading	—	—	—	—
Grading	Worker	20.0	13.8	LDA,LDT1,LDT2
Grading	Vendor	0.00	7.30	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	0.00	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	0.78	13.8	LDA,LDT1,LDT2
Building Construction	Vendor	0.30	7.30	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	0.00	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	13.8	LDA,LDT1,LDT2
Paving	Vendor	0.00	7.30	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	0.00	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.16	13.8	LDA,LDT1,LDT2
Architectural Coating	Vendor	0.00	7.30	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	0.00	—	HHDT
South shore beach activity	—	—	—	—
South shore beach activity	Worker	67.5	13.8	LDA,LDT1,LDT2
South shore beach activity	Vendor	0.00	7.30	HHDT,MHDT
South shore beach activity	Hauling	21.1	20.0	HHDT
South shore beach activity	Onsite truck	0.00	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	13.8	LDA,LDT1,LDT2
Site Preparation	Vendor	0.00	7.30	HHDT,MHDT
Site Preparation	Hauling	1.67	20.0	HHDT
Site Preparation	Onsite truck	0.00	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	13.8	LDA,LDT1,LDT2
Grading	Vendor	0.00	7.30	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	0.00	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	0.78	13.8	LDA,LDT1,LDT2
Building Construction	Vendor	0.30	7.30	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	0.00	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	13.8	LDA,LDT1,LDT2
Paving	Vendor	0.00	7.30	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	0.00	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.16	13.8	LDA,LDT1,LDT2
Architectural Coating	Vendor	0.00	7.30	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	0.00	—	HHDT
South shore beach activity	—	—	—	—

South shore beach activity	Worker	67.5	13.8	LDA,LDT1,LDT2
South shore beach activity	Vendor	0.00	7.30	HHDT,MHDT
South shore beach activity	Hauling	21.1	20.0	HHDT
South shore beach activity	Onsite truck	0.00	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	2,775	925	30,090

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	1,400	—	11.0	0.00	—
Grading	—	—	11.0	0.00	—
South shore beach activity	5,100	2,500	4.98	0.00	—
Paving	0.00	0.00	0.00	0.00	11.5

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
City Park	0.00	0%
Other Asphalt Surfaces	1.09	100%
Other Non-Asphalt Surfaces	0.88	0%
Other Non-Asphalt Surfaces	9.54	0%
Health Club	0.00	0%
User Defined Recreational	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005
2025	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
City Park	0.78	1.96	2.19	420	5.86	14.7	16.4	3,152
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Health Club	60.9	38.6	49.5	20,475	457	290	371	153,726
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
City Park	0.78	1.96	2.19	420	5.86	14.7	16.4	3,152
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Health Club	60.9	38.6	49.5	20,475	457	290	371	153,726
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	2,775	925	30,090

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
City Park	0.00	204	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00
Health Club	20,184	204	0.0330	0.0040	81,010
User Defined Recreational	0.00	204	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
City Park	0.00	204	0.0330	0.0040	0.00

Other Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00
Health Club	20,184	204	0.0330	0.0040	81,010
User Defined Recreational	0.00	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
City Park	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00
Health Club	109,415	0.00
User Defined Recreational	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
City Park	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00
Health Club	109,415	0.00
User Defined Recreational	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
City Park	0.09	—
Other Asphalt Surfaces	0.00	—
Other Non-Asphalt Surfaces	0.00	—
Other Non-Asphalt Surfaces	0.00	—
Health Club	10.5	—
User Defined Recreational	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
City Park	0.09	—
Other Asphalt Surfaces	0.00	—
Other Non-Asphalt Surfaces	0.00	—
Other Non-Asphalt Surfaces	0.00	—
Health Club	10.5	—
User Defined Recreational	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Health Club	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Health Club	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Health Club	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Health Club	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	5.62	annual days of extreme heat
Extreme Precipitation	6.50	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	7.25	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	3.12
AQ-PM	47.4
AQ-DPM	98.1
Drinking Water	4.21
Lead Risk Housing	25.4
Pesticides	0.00
Toxic Releases	49.7
Traffic	71.3
Effect Indicators	—
CleanUp Sites	95.9
Groundwater	98.4
Haz Waste Facilities/Generators	83.8
Impaired Water Bodies	90.1
Solid Waste	35.7

Sensitive Population	—
Asthma	98.8
Cardio-vascular	51.3
Low Birth Weights	40.9
Socioeconomic Factor Indicators	—
Education	66.9
Housing	74.5
Linguistic	93.1
Poverty	69.7
Unemployment	—

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	39.99743359
Employed	82.72808931
Median HI	45.34838958
Education	—
Bachelor's or higher	76.49172334
High school enrollment	100
Preschool enrollment	95.7141024
Transportation	—
Auto Access	3.567303991
Active commuting	98.16501989
Social	—
2-parent households	16.41216476

Voting	59.39946105
Neighborhood	—
Alcohol availability	4.516874118
Park access	81.35506224
Retail density	96.24021558
Supermarket access	94.25125112
Tree canopy	11.95945079
Housing	—
Homeownership	12.72937251
Housing habitability	42.69215963
Low-inc homeowner severe housing cost burden	90.77377133
Low-inc renter severe housing cost burden	32.47786475
Uncrowded housing	50.73784165
Health Outcomes	—
Insured adults	42.12755037
Arthritis	63.4
Asthma ER Admissions	0.9
High Blood Pressure	45.3
Cancer (excluding skin)	63.4
Asthma	65.7
Coronary Heart Disease	77.0
Chronic Obstructive Pulmonary Disease	71.2
Diagnosed Diabetes	48.6
Life Expectancy at Birth	81.7
Cognitively Disabled	24.2
Physically Disabled	11.3
Heart Attack ER Admissions	72.1

Mental Health Not Good	66.0
Chronic Kidney Disease	64.9
Obesity	88.0
Pedestrian Injuries	92.5
Physical Health Not Good	61.7
Stroke	58.2
Health Risk Behaviors	—
Binge Drinking	92.1
Current Smoker	59.6
No Leisure Time for Physical Activity	46.8
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	18.8
Children	92.2
Elderly	32.3
English Speaking	6.5
Foreign-born	94.4
Outdoor Workers	98.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	1.2
Traffic Density	84.9
Traffic Access	87.4
Other Indices	—
Hardship	51.9
Other Decision Support	—
2016 Voting	48.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	83.0
Healthy Places Index Score for Project Location (b)	70.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Project specific information
Construction: Construction Phases	Project specific information
Construction: Off-Road Equipment	Project specific information
Construction: Dust From Material Movement	Project specific information

B-2 AERMOD Output

*	AERMOD	(22112	):	C:\Estuary	########				
*	AERMET	(	18081):	16:21:28					
*	MODELIN(	OPTIONS	USED:	RegDFAUL	CONC	ELEV	FLGPOL	RURAL	ADJ_U*
*	PLOT	FILE	OF	ANNUAL	VALUES	AVERAGEI	ACROSS	5	YEARS
*	FOR	A	TOTAL	OF	2500	RECEPTORS.			
*	FORMAT:	(3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)							
*	X	Y	AVERAGE	CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP
*	________	________	________	______	______	______	______	________	________
	564047.1	4182340	0.69609	3.17	3.17	1.5	ANNUAL	SRCGP1	5
	564067.1	4182340	0.71087	3.18	3.18	1.5	ANNUAL	SRCGP1	5
	564087.1	4182340	0.72372	3.11	3.11	1.5	ANNUAL	SRCGP1	5
	564107.1	4182340	0.73448	2.78	2.78	1.5	ANNUAL	SRCGP1	5
	564127.1	4182340	0.74075	2.69	2.69	1.5	ANNUAL	SRCGP1	5
	564147.1	4182340	0.74217	2.74	2.74	1.5	ANNUAL	SRCGP1	5
	564167.1	4182340	0.73709	3.26	3.26	1.5	ANNUAL	SRCGP1	5
	564187.1	4182340	0.72923	3.18	3.18	1.5	ANNUAL	SRCGP1	5
	564207.1	4182340	0.71654	3.32	3.32	1.5	ANNUAL	SRCGP1	5
	564227.1	4182340	0.70192	3.27	3.27	1.5	ANNUAL	SRCGP1	5
	564247.1	4182340	0.68904	2.5	3.49	1.5	ANNUAL	SRCGP1	5
	564267.1	4182340	0.67483	2.49	3.52	1.5	ANNUAL	SRCGP1	5
	564287.1	4182340	0.6642	2.18	3.57	1.5	ANNUAL	SRCGP1	5
	564307.1	4182340	0.66034	0.61	3.57	1.5	ANNUAL	SRCGP1	5
	564327.1	4182340	0.65538	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564347.1	4182340	0.65302	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564367.1	4182340	0.65226	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564387.1	4182340	0.65173	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564407.1	4182340	0.64994	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564427.1	4182340	0.64569	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564447.1	4182340	0.63859	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564467.1	4182340	0.62918	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564487.1	4182340	0.61851	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564507.1	4182340	0.60753	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564527.1	4182340	0.59678	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564547.1	4182340	0.58638	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564567.1	4182340	0.57621	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564587.1	4182340	0.56603	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564607.1	4182340	0.55565	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564627.1	4182340	0.5451	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564647.1	4182340	0.53478	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564667.1	4182340	0.52541	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564687.1	4182340	0.51784	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564707.1	4182340	0.51273	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564727.1	4182340	0.51038	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564747.1	4182340	0.51072	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564767.1	4182340	0.51346	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564787.1	4182340	0.51825	0.61	0.61	1.5	ANNUAL	SRCGP1	5
	564807.1	4182340	0.52479	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564827.1	4182340	0.53278	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182340	0.54194	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182340	0.55203	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564887.1	4182340	0.5628	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564907.1	4182340	0.57402	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564927.1	4182340	0.58541	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564947.1	4182340	0.59665	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564967.1	4182340	0.60742	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564987.1	4182340	0.61744	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565007.1	4182340	0.62646	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565027.1	4182340	0.63436	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564047.1	4182360	0.72676	3.23	3.23	1.5	ANNUAL	SRCGP1	5
564067.1	4182360	0.74577	3.09	3.09	1.5	ANNUAL	SRCGP1	5
564087.1	4182360	0.76226	3.15	3.15	1.5	ANNUAL	SRCGP1	5
564107.1	4182360	0.777	2.98	2.98	1.5	ANNUAL	SRCGP1	5
564127.1	4182360	0.78872	2.7	2.7	1.5	ANNUAL	SRCGP1	5
564147.1	4182360	0.79534	2.64	2.64	1.5	ANNUAL	SRCGP1	5
564167.1	4182360	0.79544	2.97	2.97	1.5	ANNUAL	SRCGP1	5
564187.1	4182360	0.79022	3.23	3.23	1.5	ANNUAL	SRCGP1	5
564207.1	4182360	0.78176	2.99	2.99	1.5	ANNUAL	SRCGP1	5
564227.1	4182360	0.77208	1.9	2.98	1.5	ANNUAL	SRCGP1	5
564247.1	4182360	0.76	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182360	0.74448	0.61	3.52	1.5	ANNUAL	SRCGP1	5
564287.1	4182360	0.73079	0.61	3.57	1.5	ANNUAL	SRCGP1	5
564307.1	4182360	0.72002	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182360	0.71241	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182360	0.70764	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182360	0.70489	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182360	0.70306	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182360	0.70066	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182360	0.69625	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182360	0.68909	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182360	0.67941	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182360	0.66814	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182360	0.65632	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564527.1	4182360	0.64459	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182360	0.63312	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564567.1	4182360	0.62184	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564587.1	4182360	0.61056	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182360	0.59921	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182360	0.58797	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182360	0.57738	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182360	0.56828	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182360	0.56157	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182360	0.5579	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182360	0.55748	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182360	0.56011	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564767.1	4182360	0.56536	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182360	0.57281	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182360	0.58205	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182360	0.59269	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182360	0.60439	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182360	0.61682	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564887.1	4182360	0.62973	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564907.1	4182360	0.64279	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564927.1	4182360	0.65567	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564947.1	4182360	0.66798	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564967.1	4182360	0.67935	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564987.1	4182360	0.68949	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565007.1	4182360	0.69819	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565027.1	4182360	0.70538	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564047.1	4182380	0.75729	3.22	3.22	1.5	ANNUAL	SRCGP1	5
564067.1	4182380	0.7802	3.11	3.11	1.5	ANNUAL	SRCGP1	5
564087.1	4182380	0.80174	2.99	2.99	1.5	ANNUAL	SRCGP1	5
564107.1	4182380	0.82077	2.97	2.97	1.5	ANNUAL	SRCGP1	5
564127.1	4182380	0.8377	2.72	2.72	1.5	ANNUAL	SRCGP1	5
564147.1	4182380	0.8517	2.16	2.64	1.5	ANNUAL	SRCGP1	5
564167.1	4182380	0.86206	1.04	3.68	1.5	ANNUAL	SRCGP1	5
564187.1	4182380	0.85593	3.09	3.09	1.5	ANNUAL	SRCGP1	5
564207.1	4182380	0.8498	3.3	3.3	1.5	ANNUAL	SRCGP1	5
564227.1	4182380	0.84352	2.24	2.99	1.5	ANNUAL	SRCGP1	5
564247.1	4182380	0.8339	0.68	0.68	1.5	ANNUAL	SRCGP1	5
564267.1	4182380	0.81803	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182380	0.80262	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182380	0.78945	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182380	0.77914	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182380	0.77159	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182380	0.76632	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182380	0.76251	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182380	0.75889	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182380	0.75397	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182380	0.74659	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182380	0.73658	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182380	0.72466	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182380	0.71185	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564527.1	4182380	0.69896	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182380	0.68627	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564567.1	4182380	0.67378	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564587.1	4182380	0.66137	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182380	0.64913	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182380	0.63738	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182380	0.62683	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182380	0.61845	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182380	0.61319	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564707.1	4182380	0.61165	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182380	0.61391	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182380	0.61957	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182380	0.62809	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182380	0.63886	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182380	0.65135	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182380	0.66507	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182380	0.67958	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182380	0.69451	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564887.1	4182380	0.70953	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564907.1	4182380	0.72427	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564927.1	4182380	0.7383	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564947.1	4182380	0.75116	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564967.1	4182380	0.76248	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564987.1	4182380	0.77198	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565007.1	4182380	0.77956	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565027.1	4182380	0.78518	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564047.1	4182400	0.78699	3.21	3.21	1.5	ANNUAL	SRCGP1	5
564067.1	4182400	0.81446	3.04	3.04	1.5	ANNUAL	SRCGP1	5
564087.1	4182400	0.84045	3	3	1.5	ANNUAL	SRCGP1	5
564107.1	4182400	0.86466	2.99	2.99	1.5	ANNUAL	SRCGP1	5
564127.1	4182400	0.89057	1.91	2.98	1.5	ANNUAL	SRCGP1	5
564147.1	4182400	0.91223	0.83	0.83	1.5	ANNUAL	SRCGP1	5
564167.1	4182400	0.92626	0.64	0.64	1.5	ANNUAL	SRCGP1	5
564187.1	4182400	0.92902	2.09	3.12	1.5	ANNUAL	SRCGP1	5
564207.1	4182400	0.92531	3.07	3.07	1.5	ANNUAL	SRCGP1	5
564227.1	4182400	0.92523	1.65	3.48	1.5	ANNUAL	SRCGP1	5
564247.1	4182400	0.91664	0.66	0.66	1.5	ANNUAL	SRCGP1	5
564267.1	4182400	0.90149	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182400	0.88524	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182400	0.87015	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182400	0.85731	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182400	0.84689	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182400	0.83867	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182400	0.83214	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182400	0.82653	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182400	0.82048	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182400	0.81262	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182400	0.80217	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182400	0.78947	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182400	0.77549	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564527.1	4182400	0.76122	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182400	0.74714	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564567.1	4182400	0.73336	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564587.1	4182400	0.71989	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182400	0.70692	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182400	0.69499	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564647.1	4182400	0.68497	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182400	0.67798	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182400	0.67501	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182400	0.67655	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182400	0.68247	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182400	0.69215	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182400	0.7048	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182400	0.71962	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182400	0.7359	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182400	0.75302	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182400	0.77047	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182400	0.78783	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564887.1	4182400	0.8047	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564907.1	4182400	0.82062	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564927.1	4182400	0.83508	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564947.1	4182400	0.84761	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564967.1	4182400	0.85785	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564987.1	4182400	0.86566	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565007.1	4182400	0.87101	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565027.1	4182400	0.874	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564047.1	4182420	0.81567	3.09	3.09	1.5	ANNUAL	SRCGP1	5
564067.1	4182420	0.8474	3.03	3.03	1.5	ANNUAL	SRCGP1	5
564087.1	4182420	0.87862	2.97	2.97	1.5	ANNUAL	SRCGP1	5
564107.1	4182420	0.91031	2.54	2.54	1.5	ANNUAL	SRCGP1	5
564127.1	4182420	0.94406	0.98	2.98	1.5	ANNUAL	SRCGP1	5
564147.1	4182420	0.97043	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182420	0.99143	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182420	1.00651	0.67	0.67	1.5	ANNUAL	SRCGP1	5
564207.1	4182420	1.01426	0.82	3.48	1.5	ANNUAL	SRCGP1	5
564227.1	4182420	1.01533	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182420	1.00833	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182420	0.99562	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182420	0.97987	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182420	0.96375	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182420	0.94892	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182420	0.93585	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182420	0.92445	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182420	0.91459	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182420	0.90605	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182420	0.89803	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182420	0.88913	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182420	0.87805	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182420	0.86442	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182420	0.84904	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564527.1	4182420	0.83312	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182420	0.81746	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564567.1	4182420	0.80239	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564587.1	4182420	0.78801	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182420	0.77465	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182420	0.76306	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182420	0.75434	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182420	0.74976	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182420	0.75027	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182420	0.75619	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182420	0.76706	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182420	0.78192	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182420	0.79967	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182420	0.81924	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182420	0.8397	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182420	0.86031	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182420	0.88052	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182420	0.89986	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564887.1	4182420	0.91786	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564907.1	4182420	0.93397	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564927.1	4182420	0.94765	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564947.1	4182420	0.95848	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564967.1	4182420	0.96624	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564987.1	4182420	0.97094	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565007.1	4182420	0.97271	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565027.1	4182420	0.97175	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564047.1	4182440	0.84169	3.09	3.09	1.5	ANNUAL	SRCGP1	5
564067.1	4182440	0.87808	3.11	3.11	1.5	ANNUAL	SRCGP1	5
564087.1	4182440	0.91546	2.91	2.91	1.5	ANNUAL	SRCGP1	5
564107.1	4182440	0.95271	2.64	2.64	1.5	ANNUAL	SRCGP1	5
564127.1	4182440	0.98965	2.18	2.18	1.5	ANNUAL	SRCGP1	5
564147.1	4182440	1.02836	0.61	2.86	1.5	ANNUAL	SRCGP1	5
564167.1	4182440	1.05778	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182440	1.08206	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182440	1.09947	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182440	1.10856	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182440	1.10877	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182440	1.10104	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182440	1.08777	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182440	1.07203	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182440	1.05617	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182440	1.04108	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182440	1.02671	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182440	1.01314	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182440	1.00075	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182440	0.98963	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182440	0.97886	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182440	0.96671	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182440	0.95192	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182440	0.93487	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564527.1	4182440	0.91697	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182440	0.89956	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564567.1	4182440	0.88325	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564587.1	4182440	0.86831	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182440	0.85516	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182440	0.84479	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182440	0.83859	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182440	0.83792	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182440	0.84361	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182440	0.85562	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182440	0.87302	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182440	0.89437	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182440	0.91815	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182440	0.94294	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182440	0.96761	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182440	0.99135	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182440	1.0136	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182440	1.03385	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564887.1	4182440	1.05159	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564907.1	4182440	1.06623	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564927.1	4182440	1.07731	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564947.1	4182440	1.08458	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564967.1	4182440	1.08804	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564987.1	4182440	1.0879	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565007.1	4182440	1.08448	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565027.1	4182440	1.07807	0.61	4.15	1.5	ANNUAL	SRCGP1	5
564047.1	4182460	0.86548	2.92	2.92	1.5	ANNUAL	SRCGP1	5
564067.1	4182460	0.90668	3.04	3.04	1.5	ANNUAL	SRCGP1	5
564087.1	4182460	0.9496	2.92	2.92	1.5	ANNUAL	SRCGP1	5
564107.1	4182460	0.99267	2.83	2.83	1.5	ANNUAL	SRCGP1	5
564127.1	4182460	1.03603	2.61	2.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182460	1.0853	0.72	2.86	1.5	ANNUAL	SRCGP1	5
564167.1	4182460	1.12451	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182460	1.15909	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182460	1.18744	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182460	1.20754	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182460	1.21781	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182460	1.21809	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182460	1.21004	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182460	1.19682	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182460	1.18149	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182460	1.16556	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182460	1.14903	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182460	1.13185	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182460	1.11488	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182460	1.09937	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182460	1.08548	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564467.1	4182460	1.07148	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182460	1.05518	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182460	1.03609	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564527.1	4182460	1.01587	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182460	0.99655	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564567.1	4182460	0.97927	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564587.1	4182460	0.96441	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182460	0.9525	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182460	0.94482	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182460	0.94303	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182460	0.94849	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182460	0.96168	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182460	0.98193	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182460	1.00766	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182460	1.03678	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182460	1.06719	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182460	1.09713	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182460	1.12535	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182460	1.15105	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182460	1.17373	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182460	1.19293	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564887.1	4182460	1.20812	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564907.1	4182460	1.21886	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564927.1	4182460	1.22487	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564947.1	4182460	1.22621	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564967.1	4182460	1.22317	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564987.1	4182460	1.2162	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565007.1	4182460	1.20575	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565027.1	4182460	1.19221	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564047.1	4182480	0.88529	2.89	2.89	1.5	ANNUAL	SRCGP1	5
564067.1	4182480	0.93246	2.83	2.83	1.5	ANNUAL	SRCGP1	5
564087.1	4182480	0.98257	2.47	2.47	1.5	ANNUAL	SRCGP1	5
564107.1	4182480	1.03403	2.1	2.1	1.5	ANNUAL	SRCGP1	5
564127.1	4182480	1.08578	1.82	1.82	1.5	ANNUAL	SRCGP1	5
564147.1	4182480	1.13955	1.03	1.03	1.5	ANNUAL	SRCGP1	5
564167.1	4182480	1.19035	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182480	1.23653	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182480	1.27763	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182480	1.31117	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182480	1.33471	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182480	1.3467	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182480	1.34756	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182480	1.33996	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182480	1.32755	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182480	1.31269	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182480	1.29555	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182480	1.27567	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564407.1	4182480	1.25396	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182480	1.23283	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182480	1.21414	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182480	1.19705	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182480	1.17856	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182480	1.15703	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564527.1	4182480	1.1341	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182480	1.11284	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564567.1	4182480	1.09516	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564587.1	4182480	1.08156	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182480	1.07268	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182480	1.0701	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182480	1.07564	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182480	1.09038	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182480	1.11405	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182480	1.14509	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182480	1.18092	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182480	1.21859	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182480	1.25541	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182480	1.28934	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182480	1.31922	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182480	1.34445	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182480	1.36471	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182480	1.37968	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564887.1	4182480	1.38904	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564907.1	4182480	1.39259	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564927.1	4182480	1.39046	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564947.1	4182480	1.38308	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564967.1	4182480	1.37106	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564987.1	4182480	1.35504	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565007.1	4182480	1.33559	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565027.1	4182480	1.31315	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564047.1	4182500	0.90185	2.79	2.79	1.5	ANNUAL	SRCGP1	5
564067.1	4182500	0.9551	2.45	2.45	1.5	ANNUAL	SRCGP1	5
564087.1	4182500	1.01151	2.01	2.01	1.5	ANNUAL	SRCGP1	5
564107.1	4182500	1.07033	1.57	1.57	1.5	ANNUAL	SRCGP1	5
564127.1	4182500	1.13104	1.14	1.14	1.5	ANNUAL	SRCGP1	5
564147.1	4182500	1.19326	0.64	0.64	1.5	ANNUAL	SRCGP1	5
564167.1	4182500	1.25376	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182500	1.31275	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182500	1.36834	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182500	1.41781	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182500	1.45803	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182500	1.48613	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182500	1.50071	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182500	1.50317	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182500	1.49723	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564347.1	4182500	1.48627	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182500	1.47104	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182500	1.45047	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182500	1.42488	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182500	1.39745	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182500	1.37215	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182500	1.35	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182500	1.32815	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182500	1.30364	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564527.1	4182500	1.27775	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182500	1.25481	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564567.1	4182500	1.23788	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564587.1	4182500	1.22767	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182500	1.22491	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182500	1.23133	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182500	1.24856	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182500	1.27683	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182500	1.31461	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182500	1.35893	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182500	1.40591	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182500	1.45163	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182500	1.49291	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182500	1.52782	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182500	1.55561	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182500	1.57616	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182500	1.58955	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182500	1.59579	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564887.1	4182500	1.59495	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564907.1	4182500	1.58693	0.65	6.92	1.5	ANNUAL	SRCGP1	5
564927.1	4182500	1.57001	0.98	6.92	1.5	ANNUAL	SRCGP1	5
564947.1	4182500	1.55326	0.73	6.96	1.5	ANNUAL	SRCGP1	5
564967.1	4182500	1.53058	0.62	6.97	1.5	ANNUAL	SRCGP1	5
564987.1	4182500	1.50327	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565007.1	4182500	1.47278	0.61	0.61	1.5	ANNUAL	SRCGP1	5
565027.1	4182500	1.43969	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564047.1	4182520	0.91814	1.91	1.91	1.5	ANNUAL	SRCGP1	5
564067.1	4182520	0.97646	1.36	1.36	1.5	ANNUAL	SRCGP1	5
564087.1	4182520	1.03817	0.96	0.96	1.5	ANNUAL	SRCGP1	5
564107.1	4182520	1.10318	0.68	0.68	1.5	ANNUAL	SRCGP1	5
564127.1	4182520	1.17083	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182520	1.24101	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182520	1.31309	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182520	1.38584	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182520	1.45739	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182520	1.52512	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182520	1.58553	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182520	1.63458	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564287.1	4182520	1.66889	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182520	1.68761	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182520	1.69342	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182520	1.69067	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182520	1.68115	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182520	1.66336	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182520	1.63632	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182520	1.60315	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182520	1.56975	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182520	1.54001	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182520	1.51283	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182520	1.48458	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564527.1	4182520	1.45577	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182520	1.43204	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564567.1	4182520	1.41815	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564587.1	4182520	1.41522	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182520	1.42382	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182520	1.44538	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182520	1.4805	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182520	1.52762	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182520	1.58314	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182520	1.64214	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182520	1.69928	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182520	1.74983	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182520	1.7907	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182520	1.82073	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182520	1.84012	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182520	1.8496	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182520	1.84991	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182520	1.84162	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564887.1	4182520	1.82528	0.62	6.92	1.5	ANNUAL	SRCGP1	5
564907.1	4182520	1.78753	1.95	6.92	1.5	ANNUAL	SRCGP1	5
564927.1	4182520	1.74369	3.46	3.46	1.5	ANNUAL	SRCGP1	5
564947.1	4182520	1.71798	2.76	6.94	1.5	ANNUAL	SRCGP1	5
564967.1	4182520	1.69527	1.2	7.59	1.5	ANNUAL	SRCGP1	5
564987.1	4182520	1.65934	0.63	7.68	1.5	ANNUAL	SRCGP1	5
565007.1	4182520	1.6131	0.98	6.95	1.5	ANNUAL	SRCGP1	5
565027.1	4182520	1.57053	0.62	0.62	1.5	ANNUAL	SRCGP1	5
564047.1	4182540	0.93209	0.92	0.92	1.5	ANNUAL	SRCGP1	5
564067.1	4182540	0.99301	0.65	0.65	1.5	ANNUAL	SRCGP1	5
564087.1	4182540	1.05823	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182540	1.12834	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182540	1.20339	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182540	1.28309	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182540	1.3669	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182540	1.45387	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182540	1.54246	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564227.1	4182540	1.63033	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182540	1.71404	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182540	1.78899	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182540	1.84995	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182540	1.89312	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182540	1.91863	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182540	1.93061	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182540	1.93252	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182540	1.92288	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182540	1.89898	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182540	1.86281	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182540	1.82131	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182540	1.78138	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182540	1.74586	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182540	1.71274	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564527.1	4182540	1.68177	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182540	1.65962	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564567.1	4182540	1.6534	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564587.1	4182540	1.6647	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182540	1.69338	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182540	1.73937	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182540	1.80055	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182540	1.87203	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182540	1.94718	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182540	2.0189	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182540	2.08076	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182540	2.12819	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182540	2.15937	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182540	2.1749	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182540	2.17657	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182540	2.16632	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182540	2.14577	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182540	2.1162	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564887.1	4182540	2.07378	1.01	6.96	1.5	ANNUAL	SRCGP1	5
564907.1	4182540	2.00426	3.19	6.92	1.5	ANNUAL	SRCGP1	5
564927.1	4182540	1.94779	4.04	6.96	1.5	ANNUAL	SRCGP1	5
564947.1	4182540	1.8966	4.16	6.97	1.5	ANNUAL	SRCGP1	5
564967.1	4182540	1.85424	3.15	7.59	1.5	ANNUAL	SRCGP1	5
564987.1	4182540	1.80886	2.09	7.68	1.5	ANNUAL	SRCGP1	5
565007.1	4182540	1.75224	2	7.59	1.5	ANNUAL	SRCGP1	5
565027.1	4182540	1.70212	0.97	7.59	1.5	ANNUAL	SRCGP1	5
564047.1	4182560	0.94289	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182560	1.00564	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182560	1.07435	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182560	1.14941	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182560	1.23106	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182560	1.31943	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564167.1	4182560	1.41438	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182560	1.51537	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182560	1.62139	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182560	1.73059	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182560	1.84003	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182560	1.94518	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182560	2.03986	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182560	2.1174	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182560	2.17373	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182560	2.2106	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182560	2.23264	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182560	2.23948	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182560	2.22637	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182560	2.19319	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182560	2.1466	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182560	2.09551	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182560	2.04809	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182560	2.00857	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564527.1	4182560	1.97774	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182560	1.96271	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564567.1	4182560	1.9733	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564587.1	4182560	2.01122	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182560	2.07399	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182560	2.15746	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182560	2.25367	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182560	2.35224	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182560	2.44314	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182560	2.51806	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182560	2.57133	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182560	2.60065	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182560	2.60719	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182560	2.59438	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182560	2.56612	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182560	2.5257	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182560	2.47555	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182560	2.41759	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564887.1	4182560	2.34192	1.43	6.96	1.5	ANNUAL	SRCGP1	5
564907.1	4182560	2.25527	2.84	6.96	1.5	ANNUAL	SRCGP1	5
564927.1	4182560	2.14048	5.58	6.96	1.5	ANNUAL	SRCGP1	5
564947.1	4182560	2.05314	6.89	6.89	1.5	ANNUAL	SRCGP1	5
564967.1	4182560	1.99893	5.93	6.97	1.5	ANNUAL	SRCGP1	5
564987.1	4182560	1.9643	3.28	7.68	1.5	ANNUAL	SRCGP1	5
565007.1	4182560	1.89408	3.01	7.68	1.5	ANNUAL	SRCGP1	5
565027.1	4182560	1.82326	2.8	2.8	1.5	ANNUAL	SRCGP1	5
564047.1	4182580	0.95323	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182580	1.0178	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182580	1.08921	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564107.1	4182580	1.16809	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182580	1.25511	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182580	1.35084	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182580	1.45569	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182580	1.56977	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182580	1.69274	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182580	1.82357	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182580	1.96013	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182580	2.0987	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182580	2.23326	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182580	2.35551	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182580	2.45683	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182580	2.53358	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182580	2.58928	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182580	2.62548	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182580	2.63559	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182580	2.61635	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182580	2.57296	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182580	2.51424	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182580	2.45341	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182580	2.40641	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564527.1	4182580	2.38164	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182580	2.38607	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564567.1	4182580	2.43144	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564587.1	4182580	2.51739	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182580	2.63542	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182580	2.77194	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182580	2.90785	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182580	3.02589	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182580	3.11497	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182580	3.16985	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182580	3.18962	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182580	3.17714	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182580	3.13829	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182580	3.0798	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182580	3.0075	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182580	2.92566	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182580	2.83713	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182580	2.74402	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564887.1	4182580	2.64349	0.9	6.96	1.5	ANNUAL	SRCGP1	5
564907.1	4182580	2.52153	2.56	6.96	1.5	ANNUAL	SRCGP1	5
564927.1	4182580	2.41991	3	7.15	1.5	ANNUAL	SRCGP1	5
564947.1	4182580	2.28814	5.2	6.94	1.5	ANNUAL	SRCGP1	5
564967.1	4182580	2.16891	7.1	7.1	1.5	ANNUAL	SRCGP1	5
564987.1	4182580	2.10662	5.32	7.68	1.5	ANNUAL	SRCGP1	5
565007.1	4182580	2.04349	3.54	8.25	1.5	ANNUAL	SRCGP1	5
565027.1	4182580	1.95865	3.16	8.25	1.5	ANNUAL	SRCGP1	5

564047.1	4182600	0.965	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182600	1.03093	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182600	1.10436	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182600	1.18618	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182600	1.27741	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182600	1.37907	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182600	1.49219	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182600	1.61771	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182600	1.75623	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182600	1.90786	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182600	2.07175	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182600	2.24554	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182600	2.42455	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182600	2.60074	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182600	2.76269	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182600	2.89959	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182600	3.00923	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182600	3.0945	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182600	3.14796	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182600	3.16178	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182600	3.13858	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182600	3.08524	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182600	3.0186	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182600	2.96926	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564527.1	4182600	2.9649	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182600	3.01519	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564567.1	4182600	3.12957	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564587.1	4182600	3.29902	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182600	3.50029	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182600	3.69939	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182600	3.86024	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182600	3.96362	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182600	4.00791	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182600	3.99961	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182600	3.94755	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182600	3.8618	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182600	3.75279	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182600	3.6296	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182600	3.4989	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182600	3.36482	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182600	3.22985	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182600	3.09559	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564887.1	4182600	2.93879	1.94	2.7	1.5	ANNUAL	SRCGP1	5
564907.1	4182600	2.79787	2.7	2.7	1.5	ANNUAL	SRCGP1	5
564927.1	4182600	2.67236	2.82	6.96	1.5	ANNUAL	SRCGP1	5
564947.1	4182600	2.54941	3.01	7.68	1.5	ANNUAL	SRCGP1	5
564967.1	4182600	2.42426	3.63	7.68	1.5	ANNUAL	SRCGP1	5

564987.1	4182600	2.30482	4.16	8.25	1.5	ANNUAL	SRCGP1	5
565007.1	4182600	2.20257	3.58	8.42	1.5	ANNUAL	SRCGP1	5
565027.1	4182600	2.07997	4.71	8.42	1.5	ANNUAL	SRCGP1	5
564047.1	4182620	0.97877	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182620	1.04581	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182620	1.12088	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182620	1.20509	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182620	1.29972	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182620	1.40619	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182620	1.52611	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182620	1.6612	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182620	1.81317	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182620	1.98359	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182620	2.17347	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182620	2.38264	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182620	2.60877	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182620	2.84607	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182620	3.08355	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182620	3.30516	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182620	3.49785	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182620	3.6611	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182620	3.78888	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182620	3.86809	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182620	3.89784	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182620	3.88199	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182620	3.84197	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182620	3.82204	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564527.1	4182620	3.87486	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182620	4.02508	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564567.1	4182620	4.27143	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564587.1	4182620	4.57802	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182620	4.88489	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182620	5.11821	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182620	5.23337	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182620	5.23669	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182620	5.15739	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182620	5.02226	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182620	4.85032	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182620	4.65602	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182620	4.45113	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182620	4.24455	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182620	4.04179	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182620	3.84553	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182620	3.65674	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182620	3.47559	0.62	0.62	1.5	ANNUAL	SRCGP1	5
564887.1	4182620	3.26788	2.24	2.24	1.5	ANNUAL	SRCGP1	5
564907.1	4182620	3.09344	2.83	2.83	1.5	ANNUAL	SRCGP1	5

564927.1	4182620	2.937	2.92	2.92	1.5	ANNUAL	SRCGP1	5
564947.1	4182620	2.78765	2.97	7.68	1.5	ANNUAL	SRCGP1	5
564967.1	4182620	2.64253	3.13	8.25	1.5	ANNUAL	SRCGP1	5
564987.1	4182620	2.46854	5.26	8.25	1.5	ANNUAL	SRCGP1	5
565007.1	4182620	2.31871	6.73	8.25	1.5	ANNUAL	SRCGP1	5
565027.1	4182620	2.22621	4.59	8.42	1.5	ANNUAL	SRCGP1	5
564047.1	4182640	0.99444	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182640	1.06256	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182640	1.13913	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182640	1.22545	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182640	1.32302	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182640	1.43365	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182640	1.55935	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182640	1.70254	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182640	1.86598	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182640	2.05267	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182640	2.26584	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182640	2.50827	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182640	2.78155	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182640	3.08434	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182640	3.40984	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182640	3.74259	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182640	4.05901	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182640	4.34371	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182640	4.591	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182640	4.78576	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182640	4.92748	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182640	5.02343	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182640	5.10782	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182640	5.22952	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564527.1	4182640	5.44261	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182640	5.80009	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564567.1	4182640	6.28762	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564587.1	4182640	6.7939	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182640	7.15722	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182640	7.2649	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182640	7.1485	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182640	6.89831	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182640	6.58621	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182640	6.2502	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182640	5.90773	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182640	5.56895	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182640	5.24216	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182640	4.93323	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182640	4.64459	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182640	4.37596	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182640	4.12578	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564867.1	4182640	3.89024	0.68	2.71	1.5	ANNUAL	SRCGP1	5
564887.1	4182640	3.62196	2.66	2.66	1.5	ANNUAL	SRCGP1	5
564907.1	4182640	3.40892	3.16	3.16	1.5	ANNUAL	SRCGP1	5
564927.1	4182640	3.21659	3.28	3.28	1.5	ANNUAL	SRCGP1	5
564947.1	4182640	3.03619	3.28	3.28	1.5	ANNUAL	SRCGP1	5
564967.1	4182640	2.86425	3.27	8.25	1.5	ANNUAL	SRCGP1	5
564987.1	4182640	2.70245	3.11	8.42	1.5	ANNUAL	SRCGP1	5
565007.1	4182640	2.51643	4.86	8.42	1.5	ANNUAL	SRCGP1	5
565027.1	4182640	2.33243	7.48	8.42	1.5	ANNUAL	SRCGP1	5
564047.1	4182660	1.01133	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182660	1.08058	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182660	1.1586	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182660	1.24687	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182660	1.34716	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182660	1.46151	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182660	1.5924	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182660	1.74281	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182660	1.91633	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182660	2.1173	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182660	2.35085	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182660	2.62299	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182660	2.94017	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182660	3.30813	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182660	3.72917	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182660	4.1969	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182660	4.6885	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182660	5.16558	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182660	5.60377	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182660	5.98952	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182660	6.34351	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182660	6.72376	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182660	7.20309	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182660	7.77978	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564527.1	4182660	8.4413	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182660	9.23048	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564567.1	4182660	10.1169	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564587.1	4182660	10.80975	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182660	10.84295	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182660	10.3735	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182660	9.7038	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182660	9.00316	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182660	8.33834	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182660	7.72267	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182660	7.15281	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182660	6.62684	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182660	6.14652	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182660	5.71247	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564807.1	4182660	5.32175	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182660	4.96902	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182660	4.64832	0.61	2.58	1.5	ANNUAL	SRCGP1	5
564867.1	4182660	4.30452	2.15	2.58	1.5	ANNUAL	SRCGP1	5
564887.1	4182660	4.0248	2.58	2.58	1.5	ANNUAL	SRCGP1	5
564907.1	4182660	3.75889	3.26	3.26	1.5	ANNUAL	SRCGP1	5
564927.1	4182660	3.52004	3.57	3.57	1.5	ANNUAL	SRCGP1	5
564947.1	4182660	3.29973	3.67	3.67	1.5	ANNUAL	SRCGP1	5
564967.1	4182660	3.09716	3.46	3.46	1.5	ANNUAL	SRCGP1	5
564987.1	4182660	2.90766	3.08	8.42	1.5	ANNUAL	SRCGP1	5
565007.1	4182660	2.72329	3	8.42	1.5	ANNUAL	SRCGP1	5
565027.1	4182660	2.54384	3.33	8.42	1.5	ANNUAL	SRCGP1	5
564047.1	4182680	1.02816	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182680	1.09862	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182680	1.17807	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182680	1.26817	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182680	1.37086	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182680	1.4885	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182680	1.62396	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182680	1.78079	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182680	1.96333	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182680	2.17707	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182680	2.42886	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182680	2.72746	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182680	3.08392	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182680	3.51184	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182680	4.02675	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182680	4.64238	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182680	5.35851	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182680	6.13523	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182680	6.88823	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182680	7.5803	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182680	8.34392	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182680	9.47249	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564487.1	4182680	10.9846	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564507.1	4182680	12.64834	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564527.1	4182680	14.33097	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564547.1	4182680	15.83071	0.78	2.92	1.5	ANNUAL	SRCGP1	5
564567.1	4182680	17.31318	0.63	2.41	1.5	ANNUAL	SRCGP1	5
564587.1	4182680	17.77448	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182680	16.46158	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182680	14.70316	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182680	13.07486	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182680	11.68904	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182680	10.52018	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182680	9.51462	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182680	8.63386	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564747.1	4182680	7.85997	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182680	7.18467	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182680	6.59835	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182680	6.08757	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182680	5.63761	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182680	5.23519	0.61	2.74	1.5	ANNUAL	SRCGP1	5
564867.1	4182680	4.8091	2.22	2.22	1.5	ANNUAL	SRCGP1	5
564887.1	4182680	4.4501	3.12	5.19	1.5	ANNUAL	SRCGP1	5
564907.1	4182680	4.11124	4.35	4.83	1.5	ANNUAL	SRCGP1	5
564927.1	4182680	3.84617	3.82	5.03	1.5	ANNUAL	SRCGP1	5
564947.1	4182680	3.58251	3.81	3.81	1.5	ANNUAL	SRCGP1	5
564967.1	4182680	3.33675	3.71	3.71	1.5	ANNUAL	SRCGP1	5
564987.1	4182680	3.11155	3.33	3.33	1.5	ANNUAL	SRCGP1	5
565007.1	4182680	2.89901	3.04	8.42	1.5	ANNUAL	SRCGP1	5
565027.1	4182680	2.69919	2.87	8.42	1.5	ANNUAL	SRCGP1	5
564047.1	4182700	1.04345	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182700	1.11514	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182700	1.19599	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182700	1.2877	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182700	1.39241	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182700	1.51273	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182700	1.65188	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182700	1.81389	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182700	2.00388	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182700	2.22835	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182700	2.49577	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182700	2.81742	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182700	3.20843	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182700	3.68954	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182700	4.28934	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182700	5.04666	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182700	6.00793	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182700	7.19021	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182700	8.43352	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182700	9.49895	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564447.1	4182700	11.19636	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564467.1	4182700	14.13127	0.65	2.36	1.5	ANNUAL	SRCGP1	5
564487.1	4182700	17.48214	1.07	2.65	1.5	ANNUAL	SRCGP1	5
564507.1	4182700	21.22311	1.83	2.77	1.5	ANNUAL	SRCGP1	5
564527.1	4182700	25.87121	2.55	2.55	1.5	ANNUAL	SRCGP1	5
564547.1	4182700	29.05165	2.86	2.86	1.5	ANNUAL	SRCGP1	5
564567.1	4182700	27.12596	1.53	2.72	1.5	ANNUAL	SRCGP1	5
564587.1	4182700	27.34431	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564607.1	4182700	24.29711	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182700	20.52706	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182700	17.45659	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182700	15.09241	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564687.1	4182700	13.21021	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182700	11.6568	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182700	10.35535	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182700	9.2652	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182700	8.35619	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182700	7.596	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182700	6.95078	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182700	6.39055	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182700	5.89246	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182700	5.42609	0.95	5.19	1.5	ANNUAL	SRCGP1	5
564887.1	4182700	4.92434	3.31	5.19	1.5	ANNUAL	SRCGP1	5
564907.1	4182700	4.47766	5.17	5.17	1.5	ANNUAL	SRCGP1	5
564927.1	4182700	4.12777	5.64	5.64	1.5	ANNUAL	SRCGP1	5
564947.1	4182700	3.82562	5.37	5.37	1.5	ANNUAL	SRCGP1	5
564967.1	4182700	3.58095	3.72	5.86	1.5	ANNUAL	SRCGP1	5
564987.1	4182700	3.315	3.37	3.37	1.5	ANNUAL	SRCGP1	5
565007.1	4182700	3.06658	3.19	3.19	1.5	ANNUAL	SRCGP1	5
565027.1	4182700	2.83947	2.98	2.98	1.5	ANNUAL	SRCGP1	5
564047.1	4182720	1.05577	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182720	1.12863	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182720	1.21073	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182720	1.30382	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182720	1.41011	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182720	1.53236	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182720	1.67406	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182720	1.83964	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182720	2.03476	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182720	2.26684	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182720	2.54569	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182720	2.88465	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182720	3.30234	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182720	3.82548	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182720	4.49393	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182720	5.36911	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182720	6.54632	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182720	8.14604	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182720	9.90012	0.65	0.65	1.5	ANNUAL	SRCGP1	5
564427.1	4182720	11.35593	1.65	1.65	1.5	ANNUAL	SRCGP1	5
564447.1	4182720	16.82359	2.28	2.28	1.5	ANNUAL	SRCGP1	5
564467.1	4182720	23.31584	2.44	2.44	1.5	ANNUAL	SRCGP1	5
564487.1	4182720	29.87156	2.68	2.68	1.5	ANNUAL	SRCGP1	5
564507.1	4182720	35.33259	2.87	2.87	1.5	ANNUAL	SRCGP1	5
564527.1	4182720	39.32374	3.01	3.01	1.5	ANNUAL	SRCGP1	5
564547.1	4182720	42.4413	3.24	3.24	1.5	ANNUAL	SRCGP1	5
564567.1	4182720	38.5302	2.68	2.68	1.5	ANNUAL	SRCGP1	5
564587.1	4182720	35.62298	0.81	2.54	1.5	ANNUAL	SRCGP1	5
564607.1	4182720	32.58412	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564627.1	4182720	27.16956	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182720	22.61897	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182720	19.10458	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182720	16.2961	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182720	14.04077	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182720	12.23681	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182720	10.79735	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182720	9.64526	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182720	8.70316	0.65	2.73	1.5	ANNUAL	SRCGP1	5
564807.1	4182720	7.91661	0.63	2.42	1.5	ANNUAL	SRCGP1	5
564827.1	4182720	7.23195	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182720	6.61795	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182720	6.02432	1.32	2.26	1.5	ANNUAL	SRCGP1	5
564887.1	4182720	5.44588	2.99	4.99	1.5	ANNUAL	SRCGP1	5
564907.1	4182720	4.93032	4.53	5.12	1.5	ANNUAL	SRCGP1	5
564927.1	4182720	4.45999	5.91	5.91	1.5	ANNUAL	SRCGP1	5
564947.1	4182720	4.07973	6.2	6.2	1.5	ANNUAL	SRCGP1	5
564967.1	4182720	3.77934	4.87	6.6	1.5	ANNUAL	SRCGP1	5
564987.1	4182720	3.50317	3.49	6.6	1.5	ANNUAL	SRCGP1	5
565007.1	4182720	3.22086	3.33	3.33	1.5	ANNUAL	SRCGP1	5
565027.1	4182720	2.96605	3.18	3.18	1.5	ANNUAL	SRCGP1	5
564047.1	4182740	1.06397	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182740	1.1378	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182740	1.22091	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182740	1.31505	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182740	1.42244	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182740	1.54588	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182740	1.68897	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182740	1.85631	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182740	2.05395	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182740	2.28982	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182740	2.57463	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182740	2.92309	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182740	3.35598	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182740	3.90383	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182740	4.61357	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182740	5.56117	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182740	6.87677	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182740	8.77928	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182740	11.20556	0.67	0.67	1.5	ANNUAL	SRCGP1	5
564427.1	4182740	14.10323	2.2	2.2	1.5	ANNUAL	SRCGP1	5
564447.1	4182740	20.96256	2.43	2.43	1.5	ANNUAL	SRCGP1	5
564467.1	4182740	28.60617	2.46	2.46	1.5	ANNUAL	SRCGP1	5
564487.1	4182740	36.58271	2.8	2.8	1.5	ANNUAL	SRCGP1	5
564507.1	4182740	42.96698	3.07	3.07	1.5	ANNUAL	SRCGP1	5
564527.1	4182740	46.74646	3.16	3.16	1.5	ANNUAL	SRCGP1	5
564547.1	4182740	49.12258	3.27	3.27	1.5	ANNUAL	SRCGP1	5

564567.1	4182740	46.4827	2.95	2.95	1.5	ANNUAL	SRCGP1	5
564587.1	4182740	41.52056	1.47	2.73	1.5	ANNUAL	SRCGP1	5
564607.1	4182740	39.36311	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182740	33.90139	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182740	28.33672	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182740	23.42621	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182740	19.49076	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182740	16.47695	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182740	14.18481	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182740	12.43041	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182740	11.03013	0.84	3.11	1.5	ANNUAL	SRCGP1	5
564787.1	4182740	9.73955	2.45	2.45	1.5	ANNUAL	SRCGP1	5
564807.1	4182740	8.8343	2.35	3.16	1.5	ANNUAL	SRCGP1	5
564827.1	4182740	8.09574	1.39	3.32	1.5	ANNUAL	SRCGP1	5
564847.1	4182740	7.37281	0.94	3.05	1.5	ANNUAL	SRCGP1	5
564867.1	4182740	6.62535	1.96	1.96	1.5	ANNUAL	SRCGP1	5
564887.1	4182740	6.00984	1.84	4.71	1.5	ANNUAL	SRCGP1	5
564907.1	4182740	5.41495	2.58	6.35	1.5	ANNUAL	SRCGP1	5
564927.1	4182740	4.85028	4.2	6.52	1.5	ANNUAL	SRCGP1	5
564947.1	4182740	4.33912	5.97	6.52	1.5	ANNUAL	SRCGP1	5
564967.1	4182740	3.92838	6.63	6.63	1.5	ANNUAL	SRCGP1	5
564987.1	4182740	3.63179	4.89	6.56	1.5	ANNUAL	SRCGP1	5
565007.1	4182740	3.35702	3.44	6.56	1.5	ANNUAL	SRCGP1	5
565027.1	4182740	3.07511	3.48	3.48	1.5	ANNUAL	SRCGP1	5
564047.1	4182760	1.06724	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182760	1.14164	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182760	1.22533	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182760	1.32004	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182760	1.42793	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182760	1.55176	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182760	1.69509	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182760	1.86253	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182760	2.06016	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182760	2.29613	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182760	2.58148	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182760	2.93164	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182760	3.36864	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564307.1	4182760	3.92558	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564327.1	4182760	4.65483	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564347.1	4182760	5.64548	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564367.1	4182760	7.05845	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564387.1	4182760	9.16333	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564407.1	4182760	12.09657	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564427.1	4182760	15.13881	1.51	2.34	1.5	ANNUAL	SRCGP1	5
564447.1	4182760	20.88882	2.38	2.38	1.5	ANNUAL	SRCGP1	5
564467.1	4182760	30.18022	2.57	2.57	1.5	ANNUAL	SRCGP1	5
564487.1	4182760	40.03815	3.03	3.03	1.5	ANNUAL	SRCGP1	5

564507.1	4182760	46.90471	3.24	3.24	1.5	ANNUAL	SRCGP1	5
564527.1	4182760	50.77065	3.27	3.27	1.5	ANNUAL	SRCGP1	5
564547.1	4182760	51.9347	3.16	3.16	1.5	ANNUAL	SRCGP1	5
564567.1	4182760	53.61659	3.33	3.33	1.5	ANNUAL	SRCGP1	5
564587.1	4182760	48.1307	2.7	2.7	1.5	ANNUAL	SRCGP1	5
564607.1	4182760	43.69917	1.16	2.67	1.5	ANNUAL	SRCGP1	5
564627.1	4182760	40.40574	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564647.1	4182760	34.21691	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564667.1	4182760	27.60934	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182760	22.55072	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182760	18.88333	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182760	16.21091	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182760	14.22336	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182760	12.44563	1.94	2.88	1.5	ANNUAL	SRCGP1	5
564787.1	4182760	11.00675	3.17	3.17	1.5	ANNUAL	SRCGP1	5
564807.1	4182760	9.89678	3.28	3.28	1.5	ANNUAL	SRCGP1	5
564827.1	4182760	8.8998	3.24	3.24	1.5	ANNUAL	SRCGP1	5
564847.1	4182760	8.00085	3.01	3.01	1.5	ANNUAL	SRCGP1	5
564867.1	4182760	7.19925	2.51	2.51	1.5	ANNUAL	SRCGP1	5
564887.1	4182760	6.45065	2.47	2.47	1.5	ANNUAL	SRCGP1	5
564907.1	4182760	5.79145	2.34	2.34	1.5	ANNUAL	SRCGP1	5
564927.1	4182760	5.19609	2.56	6.65	1.5	ANNUAL	SRCGP1	5
564947.1	4182760	4.62728	4.08	6.69	1.5	ANNUAL	SRCGP1	5
564967.1	4182760	4.13925	5.3	6.69	1.5	ANNUAL	SRCGP1	5
564987.1	4182760	3.74743	5.61	6.38	1.5	ANNUAL	SRCGP1	5
565007.1	4182760	3.46313	3.93	6.38	1.5	ANNUAL	SRCGP1	5
565027.1	4182760	3.17358	3.56	6.07	1.5	ANNUAL	SRCGP1	5
564047.1	4182780	1.06499	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182780	1.13939	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182780	1.22302	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182780	1.31759	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182780	1.42522	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182780	1.54854	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182780	1.69105	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182780	1.85721	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182780	2.05302	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182780	2.28658	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182780	2.5691	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182780	2.91656	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564287.1	4182780	3.35233	0.62	3.11	1.5	ANNUAL	SRCGP1	5
564307.1	4182780	3.91137	0.67	3.11	1.5	ANNUAL	SRCGP1	5
564327.1	4182780	4.65433	0.61	3.38	1.5	ANNUAL	SRCGP1	5
564347.1	4182780	5.65187	1.01	3.38	1.5	ANNUAL	SRCGP1	5
564367.1	4182780	7.00395	2.04	2.64	1.5	ANNUAL	SRCGP1	5
564387.1	4182780	9.03963	1.96	2.47	1.5	ANNUAL	SRCGP1	5
564407.1	4182780	12.10521	0.84	3.72	1.5	ANNUAL	SRCGP1	5
564427.1	4182780	15.7178	1.54	2.42	1.5	ANNUAL	SRCGP1	5

564447.1	4182780	20.37741	2.51	2.51	1.5	ANNUAL	SRCGP1	5
564467.1	4182780	28.30983	2.45	2.45	1.5	ANNUAL	SRCGP1	5
564487.1	4182780	39.31008	2.98	2.98	1.5	ANNUAL	SRCGP1	5
564507.1	4182780	46.51456	3.13	3.13	1.5	ANNUAL	SRCGP1	5
564527.1	4182780	50.52247	3.08	3.08	1.5	ANNUAL	SRCGP1	5
564547.1	4182780	52.17957	2.92	2.92	1.5	ANNUAL	SRCGP1	5
564567.1	4182780	52.83412	2.87	2.87	1.5	ANNUAL	SRCGP1	5
564587.1	4182780	52.13828	2.88	2.88	1.5	ANNUAL	SRCGP1	5
564607.1	4182780	49.59806	2.84	2.84	1.5	ANNUAL	SRCGP1	5
564627.1	4182780	44.15288	0.81	2.93	1.5	ANNUAL	SRCGP1	5
564647.1	4182780	38.33097	0.61	2.79	1.5	ANNUAL	SRCGP1	5
564667.1	4182780	31.01271	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564687.1	4182780	25.30502	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564707.1	4182780	21.26958	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182780	18.44925	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182780	16.33735	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182780	14.45942	1.08	2.99	1.5	ANNUAL	SRCGP1	5
564787.1	4182780	12.56448	2.94	2.94	1.5	ANNUAL	SRCGP1	5
564807.1	4182780	10.96707	4.32	5.1	1.5	ANNUAL	SRCGP1	5
564827.1	4182780	9.72982	4.16	4.96	1.5	ANNUAL	SRCGP1	5
564847.1	4182780	8.68283	3.21	3.21	1.5	ANNUAL	SRCGP1	5
564867.1	4182780	7.67343	3.2	4.48	1.5	ANNUAL	SRCGP1	5
564887.1	4182780	6.80232	3.12	3.12	1.5	ANNUAL	SRCGP1	5
564907.1	4182780	6.06612	2.77	2.77	1.5	ANNUAL	SRCGP1	5
564927.1	4182780	5.41339	2.81	2.81	1.5	ANNUAL	SRCGP1	5
564947.1	4182780	4.78726	4.44	4.91	1.5	ANNUAL	SRCGP1	5
564967.1	4182780	4.33152	3.96	5.57	1.5	ANNUAL	SRCGP1	5
564987.1	4182780	3.9162	4.09	7.23	1.5	ANNUAL	SRCGP1	5
565007.1	4182780	3.53179	4.83	4.83	1.5	ANNUAL	SRCGP1	5
565027.1	4182780	3.20463	5.54	6.07	1.5	ANNUAL	SRCGP1	5
564047.1	4182800	1.05689	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182800	1.13062	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182800	1.21349	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182800	1.30714	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182800	1.41363	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182800	1.5356	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182800	1.67642	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182800	1.84054	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564207.1	4182800	2.03386	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564227.1	4182800	2.2643	0.64	3.46	1.5	ANNUAL	SRCGP1	5
564247.1	4182800	2.54059	0.92	3.46	1.5	ANNUAL	SRCGP1	5
564267.1	4182800	2.8752	1.52	3.18	1.5	ANNUAL	SRCGP1	5
564287.1	4182800	3.27856	2.65	2.9	1.5	ANNUAL	SRCGP1	5
564307.1	4182800	3.81799	2.84	2.84	1.5	ANNUAL	SRCGP1	5
564327.1	4182800	4.55627	2.4	2.4	1.5	ANNUAL	SRCGP1	5
564347.1	4182800	5.47242	3.26	3.26	1.5	ANNUAL	SRCGP1	5
564367.1	4182800	6.78211	3.29	3.29	1.5	ANNUAL	SRCGP1	5

564387.1	4182800	8.61112	3.23	3.23	1.5	ANNUAL	SRCGP1	5
564407.1	4182800	11.30641	2.79	2.79	1.5	ANNUAL	SRCGP1	5
564427.1	4182800	15.14581	3.05	3.05	1.5	ANNUAL	SRCGP1	5
564447.1	4182800	20.5714	3.06	3.06	1.5	ANNUAL	SRCGP1	5
564467.1	4182800	25.52473	2.4	2.4	1.5	ANNUAL	SRCGP1	5
564487.1	4182800	35.75304	2.71	2.71	1.5	ANNUAL	SRCGP1	5
564507.1	4182800	43.09552	2.75	2.75	1.5	ANNUAL	SRCGP1	5
564527.1	4182800	48.44649	2.77	2.77	1.5	ANNUAL	SRCGP1	5
564547.1	4182800	52.07638	2.81	2.81	1.5	ANNUAL	SRCGP1	5
564567.1	4182800	54.20183	2.91	2.91	1.5	ANNUAL	SRCGP1	5
564587.1	4182800	54.31936	3.01	3.01	1.5	ANNUAL	SRCGP1	5
564607.1	4182800	51.87467	2.91	2.91	1.5	ANNUAL	SRCGP1	5
564627.1	4182800	45.04141	2.87	2.87	1.5	ANNUAL	SRCGP1	5
564647.1	4182800	38.16778	2.49	2.79	1.5	ANNUAL	SRCGP1	5
564667.1	4182800	32.3632	1.59	2.75	1.5	ANNUAL	SRCGP1	5
564687.1	4182800	27.57985	0.68	0.68	1.5	ANNUAL	SRCGP1	5
564707.1	4182800	23.93841	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182800	21.42477	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182800	19.10287	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182800	16.79883	0.63	0.63	1.5	ANNUAL	SRCGP1	5
564787.1	4182800	14.47294	1.46	5.1	1.5	ANNUAL	SRCGP1	5
564807.1	4182800	12.29805	3.09	5.1	1.5	ANNUAL	SRCGP1	5
564827.1	4182800	10.39992	4.97	5.33	1.5	ANNUAL	SRCGP1	5
564847.1	4182800	9.16597	4.05	4.05	1.5	ANNUAL	SRCGP1	5
564867.1	4182800	7.9729	4.43	4.43	1.5	ANNUAL	SRCGP1	5
564887.1	4182800	7.09364	3.19	5.69	1.5	ANNUAL	SRCGP1	5
564907.1	4182800	6.2799	2.99	2.99	1.5	ANNUAL	SRCGP1	5
564927.1	4182800	5.59056	2.84	2.84	1.5	ANNUAL	SRCGP1	5
564947.1	4182800	4.9092	4.6	4.97	1.5	ANNUAL	SRCGP1	5
564967.1	4182800	4.45108	3.93	7.23	1.5	ANNUAL	SRCGP1	5
564987.1	4182800	3.95223	5.69	7.23	1.5	ANNUAL	SRCGP1	5
565007.1	4182800	3.6354	4.53	7.23	1.5	ANNUAL	SRCGP1	5
565027.1	4182800	3.28765	5.28	5.28	1.5	ANNUAL	SRCGP1	5
564047.1	4182820	1.04304	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182820	1.11552	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182820	1.19696	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182820	1.28901	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182820	1.39373	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182820	1.51375	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182820	1.65247	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564187.1	4182820	1.81433	0.62	3.29	1.5	ANNUAL	SRCGP1	5
564207.1	4182820	2.00044	1.24	3.45	1.5	ANNUAL	SRCGP1	5
564227.1	4182820	2.20534	3.07	3.07	1.5	ANNUAL	SRCGP1	5
564247.1	4182820	2.47019	3.41	3.41	1.5	ANNUAL	SRCGP1	5
564267.1	4182820	2.8012	3.47	3.47	1.5	ANNUAL	SRCGP1	5
564287.1	4182820	3.22944	3.06	3.06	1.5	ANNUAL	SRCGP1	5
564307.1	4182820	3.76814	2.93	2.93	1.5	ANNUAL	SRCGP1	5

564327.1	4182820	4.44236	3.32	3.32	1.5	ANNUAL	SRCGP1	5
564347.1	4182820	5.34058	3.42	3.42	1.5	ANNUAL	SRCGP1	5
564367.1	4182820	6.55301	3.3	3.3	1.5	ANNUAL	SRCGP1	5
564387.1	4182820	8.18476	3.29	3.29	1.5	ANNUAL	SRCGP1	5
564407.1	4182820	10.48058	3.28	3.28	1.5	ANNUAL	SRCGP1	5
564427.1	4182820	13.81224	3.25	3.25	1.5	ANNUAL	SRCGP1	5
564447.1	4182820	18.86423	3.19	3.19	1.5	ANNUAL	SRCGP1	5
564467.1	4182820	23.80522	2.75	2.75	1.5	ANNUAL	SRCGP1	5
564487.1	4182820	32.93047	2.74	2.74	1.5	ANNUAL	SRCGP1	5
564507.1	4182820	41.08859	2.77	2.77	1.5	ANNUAL	SRCGP1	5
564527.1	4182820	47.5625	2.84	2.84	1.5	ANNUAL	SRCGP1	5
564547.1	4182820	51.69919	2.83	2.83	1.5	ANNUAL	SRCGP1	5
564567.1	4182820	54.76876	2.97	2.97	1.5	ANNUAL	SRCGP1	5
564587.1	4182820	55.28851	3.04	3.04	1.5	ANNUAL	SRCGP1	5
564607.1	4182820	52.82668	2.88	2.88	1.5	ANNUAL	SRCGP1	5
564627.1	4182820	46.71795	3.12	3.12	1.5	ANNUAL	SRCGP1	5
564647.1	4182820	39.83082	2.93	2.93	1.5	ANNUAL	SRCGP1	5
564667.1	4182820	34.12565	2.72	2.72	1.5	ANNUAL	SRCGP1	5
564687.1	4182820	30.70212	0.9	3.04	1.5	ANNUAL	SRCGP1	5
564707.1	4182820	28.62294	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564727.1	4182820	26.25728	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564747.1	4182820	22.9052	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182820	19.44737	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182820	16.31952	0.75	2.52	1.5	ANNUAL	SRCGP1	5
564807.1	4182820	13.52901	1.97	5.33	1.5	ANNUAL	SRCGP1	5
564827.1	4182820	11.34049	2.95	5.33	1.5	ANNUAL	SRCGP1	5
564847.1	4182820	9.69324	3.17	5.37	1.5	ANNUAL	SRCGP1	5
564867.1	4182820	8.34773	3.58	5.69	1.5	ANNUAL	SRCGP1	5
564887.1	4182820	7.15711	5.03	5.29	1.5	ANNUAL	SRCGP1	5
564907.1	4182820	6.46115	2.96	5.29	1.5	ANNUAL	SRCGP1	5
564927.1	4182820	5.72544	3.04	3.04	1.5	ANNUAL	SRCGP1	5
564947.1	4182820	5.10969	3.08	7.23	1.5	ANNUAL	SRCGP1	5
564967.1	4182820	4.56481	3.65	7.23	1.5	ANNUAL	SRCGP1	5
564987.1	4182820	4.01221	6.32	6.32	1.5	ANNUAL	SRCGP1	5
565007.1	4182820	3.65674	5.95	6.29	1.5	ANNUAL	SRCGP1	5
565027.1	4182820	3.41506	3.49	7.06	1.5	ANNUAL	SRCGP1	5
564047.1	4182840	1.02411	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182840	1.09492	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182840	1.17454	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182840	1.26462	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182840	1.36724	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182840	1.48511	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182840	1.62157	0.63	0.63	1.5	ANNUAL	SRCGP1	5
564187.1	4182840	1.77184	1.94	3.07	1.5	ANNUAL	SRCGP1	5
564207.1	4182840	1.94322	3.37	3.37	1.5	ANNUAL	SRCGP1	5
564227.1	4182840	2.16343	3.43	3.43	1.5	ANNUAL	SRCGP1	5
564247.1	4182840	2.4309	3.43	3.43	1.5	ANNUAL	SRCGP1	5

564267.1	4182840	2.7599	3.38	3.38	1.5	ANNUAL	SRCGP1	5
564287.1	4182840	3.17578	3.07	3.07	1.5	ANNUAL	SRCGP1	5
564307.1	4182840	3.69218	2.98	2.98	1.5	ANNUAL	SRCGP1	5
564327.1	4182840	4.33065	3.27	3.27	1.5	ANNUAL	SRCGP1	5
564347.1	4182840	5.16074	3.29	3.29	1.5	ANNUAL	SRCGP1	5
564367.1	4182840	6.2372	3.31	3.31	1.5	ANNUAL	SRCGP1	5
564387.1	4182840	7.67	3.33	3.33	1.5	ANNUAL	SRCGP1	5
564407.1	4182840	9.66684	3.26	3.26	1.5	ANNUAL	SRCGP1	5
564427.1	4182840	12.46773	3.35	3.35	1.5	ANNUAL	SRCGP1	5
564447.1	4182840	16.64251	3.23	3.23	1.5	ANNUAL	SRCGP1	5
564467.1	4182840	22.08805	3.02	3.02	1.5	ANNUAL	SRCGP1	5
564487.1	4182840	28.05908	2.52	2.52	1.5	ANNUAL	SRCGP1	5
564507.1	4182840	37.90046	2.74	2.74	1.5	ANNUAL	SRCGP1	5
564527.1	4182840	45.38886	2.84	2.84	1.5	ANNUAL	SRCGP1	5
564547.1	4182840	50.69233	2.9	2.9	1.5	ANNUAL	SRCGP1	5
564567.1	4182840	53.9556	2.94	2.94	1.5	ANNUAL	SRCGP1	5
564587.1	4182840	54.41027	2.82	2.82	1.5	ANNUAL	SRCGP1	5
564607.1	4182840	52.75761	2.62	2.62	1.5	ANNUAL	SRCGP1	5
564627.1	4182840	50.99456	3.02	3.02	1.5	ANNUAL	SRCGP1	5
564647.1	4182840	44.21709	2.98	2.98	1.5	ANNUAL	SRCGP1	5
564667.1	4182840	40.27943	2.79	2.79	1.5	ANNUAL	SRCGP1	5
564687.1	4182840	38.44452	2.82	2.82	1.5	ANNUAL	SRCGP1	5
564707.1	4182840	35.22973	1.59	2.82	1.5	ANNUAL	SRCGP1	5
564727.1	4182840	32.94628	0.62	0.62	1.5	ANNUAL	SRCGP1	5
564747.1	4182840	27.8276	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564767.1	4182840	22.37266	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564787.1	4182840	17.99875	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182840	14.70885	0.66	5.33	1.5	ANNUAL	SRCGP1	5
564827.1	4182840	11.99866	2.15	2.63	1.5	ANNUAL	SRCGP1	5
564847.1	4182840	10.1027	2.65	2.65	1.5	ANNUAL	SRCGP1	5
564867.1	4182840	8.68176	2.67	2.67	1.5	ANNUAL	SRCGP1	5
564887.1	4182840	7.54237	2.73	5.29	1.5	ANNUAL	SRCGP1	5
564907.1	4182840	6.60594	2.93	2.93	1.5	ANNUAL	SRCGP1	5
564927.1	4182840	5.85135	2.87	2.87	1.5	ANNUAL	SRCGP1	5
564947.1	4182840	5.22316	2.75	2.75	1.5	ANNUAL	SRCGP1	5
564967.1	4182840	4.66434	3.21	7.23	1.5	ANNUAL	SRCGP1	5
564987.1	4182840	4.20775	3.23	7.23	1.5	ANNUAL	SRCGP1	5
565007.1	4182840	3.81238	3.32	7.23	1.5	ANNUAL	SRCGP1	5
565027.1	4182840	3.46774	3.48	3.48	1.5	ANNUAL	SRCGP1	5
564047.1	4182860	1.00139	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182860	1.07036	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182860	1.14803	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182860	1.23608	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182860	1.33663	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182860	1.45239	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564167.1	4182860	1.58487	0.95	3.27	1.5	ANNUAL	SRCGP1	5
564187.1	4182860	1.72576	2.95	2.95	1.5	ANNUAL	SRCGP1	5

564207.1	4182860	1.90211	3.51	3.51	1.5	ANNUAL	SRCGP1	5
564227.1	4182860	2.11841	3.57	3.57	1.5	ANNUAL	SRCGP1	5
564247.1	4182860	2.37914	3.6	3.6	1.5	ANNUAL	SRCGP1	5
564267.1	4182860	2.70036	3.42	3.42	1.5	ANNUAL	SRCGP1	5
564287.1	4182860	3.09627	3.17	3.17	1.5	ANNUAL	SRCGP1	5
564307.1	4182860	3.57975	3.11	3.11	1.5	ANNUAL	SRCGP1	5
564327.1	4182860	4.18105	3.05	3.05	1.5	ANNUAL	SRCGP1	5
564347.1	4182860	4.92999	3.09	3.09	1.5	ANNUAL	SRCGP1	5
564367.1	4182860	5.87158	3.27	3.27	1.5	ANNUAL	SRCGP1	5
564387.1	4182860	7.13385	3.14	3.14	1.5	ANNUAL	SRCGP1	5
564407.1	4182860	8.85936	2.99	2.99	1.5	ANNUAL	SRCGP1	5
564427.1	4182860	11.26584	2.88	2.88	1.5	ANNUAL	SRCGP1	5
564447.1	4182860	14.61202	3.17	3.17	1.5	ANNUAL	SRCGP1	5
564467.1	4182860	19.75621	3.12	3.12	1.5	ANNUAL	SRCGP1	5
564487.1	4182860	23.93092	2.45	2.45	1.5	ANNUAL	SRCGP1	5
564507.1	4182860	31.47966	2.18	2.18	1.5	ANNUAL	SRCGP1	5
564527.1	4182860	41.81941	2.75	2.75	1.5	ANNUAL	SRCGP1	5
564547.1	4182860	47.96755	2.82	2.82	1.5	ANNUAL	SRCGP1	5
564567.1	4182860	52.12958	2.88	2.88	1.5	ANNUAL	SRCGP1	5
564587.1	4182860	54.2982	2.9	2.9	1.5	ANNUAL	SRCGP1	5
564607.1	4182860	53.0717	2.57	2.57	1.5	ANNUAL	SRCGP1	5
564627.1	4182860	52.55742	2.62	2.62	1.5	ANNUAL	SRCGP1	5
564647.1	4182860	49.9515	2.65	2.65	1.5	ANNUAL	SRCGP1	5
564667.1	4182860	48.16625	2.7	2.7	1.5	ANNUAL	SRCGP1	5
564687.1	4182860	47.8331	3.02	3.02	1.5	ANNUAL	SRCGP1	5
564707.1	4182860	44.01304	2.95	2.95	1.5	ANNUAL	SRCGP1	5
564727.1	4182860	37.77162	1.34	2.82	1.5	ANNUAL	SRCGP1	5
564747.1	4182860	31.6597	0.63	5.3	1.5	ANNUAL	SRCGP1	5
564767.1	4182860	24.45609	0.61	5.13	1.5	ANNUAL	SRCGP1	5
564787.1	4182860	19.09617	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564807.1	4182860	15.33696	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182860	12.62802	0.63	2.35	1.5	ANNUAL	SRCGP1	5
564847.1	4182860	10.54289	1.09	2.61	1.5	ANNUAL	SRCGP1	5
564867.1	4182860	8.97021	1.41	1.81	1.5	ANNUAL	SRCGP1	5
564887.1	4182860	7.77838	1.3	4.33	1.5	ANNUAL	SRCGP1	5
564907.1	4182860	6.58707	4.05	4.05	1.5	ANNUAL	SRCGP1	5
564927.1	4182860	5.83039	3.99	3.99	1.5	ANNUAL	SRCGP1	5
564947.1	4182860	5.21269	3.68	3.68	1.5	ANNUAL	SRCGP1	5
564967.1	4182860	4.69078	3.34	3.34	1.5	ANNUAL	SRCGP1	5
564987.1	4182860	4.23599	3.2	3.2	1.5	ANNUAL	SRCGP1	5
565007.1	4182860	3.83831	3.23	3.23	1.5	ANNUAL	SRCGP1	5
565027.1	4182860	3.49405	3.26	3.26	1.5	ANNUAL	SRCGP1	5
564047.1	4182880	0.9765	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182880	1.04373	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182880	1.11958	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182880	1.20573	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564127.1	4182880	1.30419	0.64	3.34	1.5	ANNUAL	SRCGP1	5

564147.1	4182880	1.41345	1.48	3.37	1.5	ANNUAL	SRCGP1	5
564167.1	4182880	1.53387	2.99	2.99	1.5	ANNUAL	SRCGP1	5
564187.1	4182880	1.68285	3.28	3.28	1.5	ANNUAL	SRCGP1	5
564207.1	4182880	1.86007	3.37	3.37	1.5	ANNUAL	SRCGP1	5
564227.1	4182880	2.06768	3.61	3.61	1.5	ANNUAL	SRCGP1	5
564247.1	4182880	2.31878	3.61	3.61	1.5	ANNUAL	SRCGP1	5
564267.1	4182880	2.62006	3.6	3.6	1.5	ANNUAL	SRCGP1	5
564287.1	4182880	2.99025	3.33	3.33	1.5	ANNUAL	SRCGP1	5
564307.1	4182880	3.43836	3.13	3.13	1.5	ANNUAL	SRCGP1	5
564327.1	4182880	3.98471	2.98	2.98	1.5	ANNUAL	SRCGP1	5
564347.1	4182880	4.64913	3.03	3.03	1.5	ANNUAL	SRCGP1	5
564367.1	4182880	5.4885	2.97	2.97	1.5	ANNUAL	SRCGP1	5
564387.1	4182880	6.55651	3.13	3.13	1.5	ANNUAL	SRCGP1	5
564407.1	4182880	8.0151	2.97	2.97	1.5	ANNUAL	SRCGP1	5
564427.1	4182880	9.98428	3	3	1.5	ANNUAL	SRCGP1	5
564447.1	4182880	12.6998	3.25	3.25	1.5	ANNUAL	SRCGP1	5
564467.1	4182880	16.8199	3.22	3.22	1.5	ANNUAL	SRCGP1	5
564487.1	4182880	21.79949	2.9	2.9	1.5	ANNUAL	SRCGP1	5
564507.1	4182880	27.03444	2.2	2.2	1.5	ANNUAL	SRCGP1	5
564527.1	4182880	37.72712	2.73	2.73	1.5	ANNUAL	SRCGP1	5
564547.1	4182880	44.89978	2.86	2.86	1.5	ANNUAL	SRCGP1	5
564567.1	4182880	49.83685	2.94	2.94	1.5	ANNUAL	SRCGP1	5
564587.1	4182880	52.46598	2.92	2.92	1.5	ANNUAL	SRCGP1	5
564607.1	4182880	53.16388	2.81	2.81	1.5	ANNUAL	SRCGP1	5
564627.1	4182880	51.91333	2.49	2.49	1.5	ANNUAL	SRCGP1	5
564647.1	4182880	52.45227	2.79	2.79	1.5	ANNUAL	SRCGP1	5
564667.1	4182880	50.65453	2.77	2.77	1.5	ANNUAL	SRCGP1	5
564687.1	4182880	49.14016	2.96	2.96	1.5	ANNUAL	SRCGP1	5
564707.1	4182880	46.11855	3.2	3.2	1.5	ANNUAL	SRCGP1	5
564727.1	4182880	39.11671	3.17	3.67	1.5	ANNUAL	SRCGP1	5
564747.1	4182880	29.34109	2.99	5.3	1.5	ANNUAL	SRCGP1	5
564767.1	4182880	24.07433	0.67	5.3	1.5	ANNUAL	SRCGP1	5
564787.1	4182880	18.90261	0.61	5.3	1.5	ANNUAL	SRCGP1	5
564807.1	4182880	15.19262	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564827.1	4182880	12.51038	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564847.1	4182880	10.50944	0.62	0.62	1.5	ANNUAL	SRCGP1	5
564867.1	4182880	8.96337	0.71	0.71	1.5	ANNUAL	SRCGP1	5
564887.1	4182880	7.76391	0.65	4.33	1.5	ANNUAL	SRCGP1	5
564907.1	4182880	6.63434	2.52	4.26	1.5	ANNUAL	SRCGP1	5
564927.1	4182880	5.81085	3.31	3.31	1.5	ANNUAL	SRCGP1	5
564947.1	4182880	5.19094	3.1	3.1	1.5	ANNUAL	SRCGP1	5
564967.1	4182880	4.6579	3.07	3.07	1.5	ANNUAL	SRCGP1	5
564987.1	4182880	4.19519	3.24	3.24	1.5	ANNUAL	SRCGP1	5
565007.1	4182880	3.80063	3.35	3.35	1.5	ANNUAL	SRCGP1	5
565027.1	4182880	3.46252	3.36	3.36	1.5	ANNUAL	SRCGP1	5
564047.1	4182900	0.95122	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182900	1.01689	0.61	0.61	1.5	ANNUAL	SRCGP1	5

564087.1	4182900	1.09111	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564107.1	4182900	1.17537	0.65	3.58	1.5	ANNUAL	SRCGP1	5
564127.1	4182900	1.26226	2.62	3.16	1.5	ANNUAL	SRCGP1	5
564147.1	4182900	1.367	3.36	3.36	1.5	ANNUAL	SRCGP1	5
564167.1	4182900	1.49222	3.49	3.49	1.5	ANNUAL	SRCGP1	5
564187.1	4182900	1.6397	3.42	3.42	1.5	ANNUAL	SRCGP1	5
564207.1	4182900	1.8129	3.29	3.29	1.5	ANNUAL	SRCGP1	5
564227.1	4182900	2.01433	3.32	3.32	1.5	ANNUAL	SRCGP1	5
564247.1	4182900	2.24812	3.56	3.56	1.5	ANNUAL	SRCGP1	5
564267.1	4182900	2.527	3.64	3.64	1.5	ANNUAL	SRCGP1	5
564287.1	4182900	2.86355	3.49	3.49	1.5	ANNUAL	SRCGP1	5
564307.1	4182900	3.27316	3.09	3.09	1.5	ANNUAL	SRCGP1	5
564327.1	4182900	3.75596	3.01	3.01	1.5	ANNUAL	SRCGP1	5
564347.1	4182900	4.33726	3.04	3.04	1.5	ANNUAL	SRCGP1	5
564367.1	4182900	5.064	2.94	2.94	1.5	ANNUAL	SRCGP1	5
564387.1	4182900	5.9653	3.2	3.2	1.5	ANNUAL	SRCGP1	5
564407.1	4182900	7.15369	3.29	3.29	1.5	ANNUAL	SRCGP1	5
564427.1	4182900	8.74942	3.29	3.29	1.5	ANNUAL	SRCGP1	5
564447.1	4182900	10.94688	3.25	3.25	1.5	ANNUAL	SRCGP1	5
564467.1	4182900	14.15422	2.93	2.93	1.5	ANNUAL	SRCGP1	5
564487.1	4182900	18.59686	2.79	2.79	1.5	ANNUAL	SRCGP1	5
564507.1	4182900	22.68111	2.36	2.36	1.5	ANNUAL	SRCGP1	5
564527.1	4182900	30.00407	2.14	2.14	1.5	ANNUAL	SRCGP1	5
564547.1	4182900	38.69538	2.6	2.6	1.5	ANNUAL	SRCGP1	5
564567.1	4182900	44.61953	2.81	2.81	1.5	ANNUAL	SRCGP1	5
564587.1	4182900	48.23998	2.88	2.88	1.5	ANNUAL	SRCGP1	5
564607.1	4182900	49.0804	2.73	2.73	1.5	ANNUAL	SRCGP1	5
564627.1	4182900	48.33316	2.51	2.51	1.5	ANNUAL	SRCGP1	5
564647.1	4182900	48.80614	2.83	2.83	1.5	ANNUAL	SRCGP1	5
564667.1	4182900	45.4809	2.62	2.62	1.5	ANNUAL	SRCGP1	5
564687.1	4182900	41.86452	2.74	2.74	1.5	ANNUAL	SRCGP1	5
564707.1	4182900	36.39478	3.56	3.56	1.5	ANNUAL	SRCGP1	5
564727.1	4182900	28.79376	4.3	4.3	1.5	ANNUAL	SRCGP1	5
564747.1	4182900	22.56736	5.16	5.16	1.5	ANNUAL	SRCGP1	5
564767.1	4182900	20.60381	1.33	5.3	1.5	ANNUAL	SRCGP1	5
564787.1	4182900	16.99106	0.62	5.3	1.5	ANNUAL	SRCGP1	5
564807.1	4182900	13.96144	0.63	2.84	1.5	ANNUAL	SRCGP1	5
564827.1	4182900	11.60821	0.94	2.79	1.5	ANNUAL	SRCGP1	5
564847.1	4182900	9.79653	1.35	2.88	1.5	ANNUAL	SRCGP1	5
564867.1	4182900	8.37478	1.86	2.37	1.5	ANNUAL	SRCGP1	5
564887.1	4182900	7.39621	0.9	2.92	1.5	ANNUAL	SRCGP1	5
564907.1	4182900	6.37445	2.43	2.43	1.5	ANNUAL	SRCGP1	5
564927.1	4182900	5.61531	3.04	3.04	1.5	ANNUAL	SRCGP1	5
564947.1	4182900	5.01933	3.06	3.06	1.5	ANNUAL	SRCGP1	5
564967.1	4182900	4.50896	3.19	3.19	1.5	ANNUAL	SRCGP1	5
564987.1	4182900	4.07561	3.26	3.26	1.5	ANNUAL	SRCGP1	5
565007.1	4182900	3.70052	3.37	3.37	1.5	ANNUAL	SRCGP1	5

565027.1	4182900	3.37166	3.58	3.58	1.5	ANNUAL	SRCGP1	5
564047.1	4182920	0.92691	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564067.1	4182920	0.99123	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564087.1	4182920	1.06319	0.83	3.5	1.5	ANNUAL	SRCGP1	5
564107.1	4182920	1.13815	2.6	3.09	1.5	ANNUAL	SRCGP1	5
564127.1	4182920	1.22578	3.55	3.55	1.5	ANNUAL	SRCGP1	5
564147.1	4182920	1.33258	3.45	3.45	1.5	ANNUAL	SRCGP1	5
564167.1	4182920	1.4539	3.55	3.55	1.5	ANNUAL	SRCGP1	5
564187.1	4182920	1.59488	3.54	3.54	1.5	ANNUAL	SRCGP1	5
564207.1	4182920	1.75973	3.39	3.39	1.5	ANNUAL	SRCGP1	5
564227.1	4182920	1.95306	3.11	3.11	1.5	ANNUAL	SRCGP1	5
564247.1	4182920	2.1722	3.26	3.26	1.5	ANNUAL	SRCGP1	5
564267.1	4182920	2.42372	3.6	3.6	1.5	ANNUAL	SRCGP1	5
564287.1	4182920	2.73047	3.33	3.33	1.5	ANNUAL	SRCGP1	5
564307.1	4182920	3.09141	3.08	3.08	1.5	ANNUAL	SRCGP1	5
564327.1	4182920	3.51011	3.12	3.12	1.5	ANNUAL	SRCGP1	5
564347.1	4182920	4.02062	2.9	2.9	1.5	ANNUAL	SRCGP1	5
564367.1	4182920	4.62431	3.14	3.14	1.5	ANNUAL	SRCGP1	5
564387.1	4182920	5.39573	3.11	3.11	1.5	ANNUAL	SRCGP1	5
564407.1	4182920	6.36196	3.32	3.32	1.5	ANNUAL	SRCGP1	5
564427.1	4182920	7.64963	3.22	3.22	1.5	ANNUAL	SRCGP1	5
564447.1	4182920	9.39945	2.93	2.93	1.5	ANNUAL	SRCGP1	5
564467.1	4182920	11.74701	2.9	2.9	1.5	ANNUAL	SRCGP1	5
564487.1	4182920	15.06283	2.86	2.86	1.5	ANNUAL	SRCGP1	5
564507.1	4182920	18.67079	2.54	2.54	1.5	ANNUAL	SRCGP1	5
564527.1	4182920	23.24144	2.13	2.13	1.5	ANNUAL	SRCGP1	5
564547.1	4182920	31.70202	2.76	2.76	1.5	ANNUAL	SRCGP1	5
564567.1	4182920	36.76296	2.76	2.76	1.5	ANNUAL	SRCGP1	5
564587.1	4182920	39.29282	2.65	2.65	1.5	ANNUAL	SRCGP1	5
564607.1	4182920	39.2591	2.35	2.35	1.5	ANNUAL	SRCGP1	5
564627.1	4182920	39.02	2.46	2.46	1.5	ANNUAL	SRCGP1	5
564647.1	4182920	37.99693	2.8	2.8	1.5	ANNUAL	SRCGP1	5
564667.1	4182920	34.2108	2.51	2.51	1.5	ANNUAL	SRCGP1	5
564687.1	4182920	29.85917	2.98	2.98	1.5	ANNUAL	SRCGP1	5
564707.1	4182920	25.57302	3.29	3.29	1.5	ANNUAL	SRCGP1	5
564727.1	4182920	21.94525	3.2	4.51	1.5	ANNUAL	SRCGP1	5
564747.1	4182920	18.89516	2.76	5.3	1.5	ANNUAL	SRCGP1	5
564767.1	4182920	16.04271	2.62	5.3	1.5	ANNUAL	SRCGP1	5
564787.1	4182920	13.61724	2.5	2.5	1.5	ANNUAL	SRCGP1	5
564807.1	4182920	11.56126	2.66	2.66	1.5	ANNUAL	SRCGP1	5
564827.1	4182920	9.915	2.79	2.79	1.5	ANNUAL	SRCGP1	5
564847.1	4182920	8.59847	2.82	2.82	1.5	ANNUAL	SRCGP1	5
564867.1	4182920	7.5286	2.79	2.79	1.5	ANNUAL	SRCGP1	5
564887.1	4182920	6.7151	2	2.51	1.5	ANNUAL	SRCGP1	5
564907.1	4182920	6.06654	0.72	3.07	1.5	ANNUAL	SRCGP1	5
564927.1	4182920	5.32066	2.13	2.13	1.5	ANNUAL	SRCGP1	5
564947.1	4182920	4.72316	3.22	3.22	1.5	ANNUAL	SRCGP1	5

564967.1	4182920	4.27486	3.16	3.16	1.5	ANNUAL	SRCGP1	5
564987.1	4182920	3.88424	3.17	3.17	1.5	ANNUAL	SRCGP1	5
565007.1	4182920	3.53794	3.36	3.36	1.5	ANNUAL	SRCGP1	5
565027.1	4182920	3.23868	3.45	3.45	1.5	ANNUAL	SRCGP1	5
564047.1	4182940	0.90337	0.96	0.96	1.5	ANNUAL	SRCGP1	5
564067.1	4182940	0.96425	1.62	1.62	1.5	ANNUAL	SRCGP1	5
564087.1	4182940	1.0288	3.16	3.16	1.5	ANNUAL	SRCGP1	5
564107.1	4182940	1.10645	3.5	3.5	1.5	ANNUAL	SRCGP1	5
564127.1	4182940	1.19574	3.61	3.61	1.5	ANNUAL	SRCGP1	5
564147.1	4182940	1.29876	3.52	3.52	1.5	ANNUAL	SRCGP1	5
564167.1	4182940	1.41655	3.42	3.42	1.5	ANNUAL	SRCGP1	5
564187.1	4182940	1.55032	3.44	3.44	1.5	ANNUAL	SRCGP1	5
564207.1	4182940	1.70345	3.47	3.47	1.5	ANNUAL	SRCGP1	5
564227.1	4182940	1.88294	3.19	3.19	1.5	ANNUAL	SRCGP1	5
564247.1	4182940	2.08719	3.09	3.09	1.5	ANNUAL	SRCGP1	5
564267.1	4182940	2.3157	3.4	3.4	1.5	ANNUAL	SRCGP1	5
564287.1	4182940	2.58833	3.21	3.21	1.5	ANNUAL	SRCGP1	5
564307.1	4182940	2.90392	3.05	3.05	1.5	ANNUAL	SRCGP1	5
564327.1	4182940	3.26582	3.12	3.12	1.5	ANNUAL	SRCGP1	5
564347.1	4182940	3.69883	3.01	3.01	1.5	ANNUAL	SRCGP1	5
564367.1	4182940	4.21472	3.08	3.08	1.5	ANNUAL	SRCGP1	5
564387.1	4182940	4.85761	3.02	3.02	1.5	ANNUAL	SRCGP1	5
564407.1	4182940	5.64452	3.21	3.21	1.5	ANNUAL	SRCGP1	5
564427.1	4182940	6.65853	3.16	3.16	1.5	ANNUAL	SRCGP1	5
564447.1	4182940	7.93772	3.28	3.28	1.5	ANNUAL	SRCGP1	5
564467.1	4182940	9.63698	3.16	3.16	1.5	ANNUAL	SRCGP1	5
564487.1	4182940	11.87615	2.87	2.87	1.5	ANNUAL	SRCGP1	5
564507.1	4182940	14.63459	2.64	2.64	1.5	ANNUAL	SRCGP1	5
564527.1	4182940	17.8117	2.52	2.52	1.5	ANNUAL	SRCGP1	5
564547.1	4182940	21.2628	2.64	2.64	1.5	ANNUAL	SRCGP1	5
564567.1	4182940	24.49123	2.37	2.37	1.5	ANNUAL	SRCGP1	5
564587.1	4182940	26.81411	2.48	2.48	1.5	ANNUAL	SRCGP1	5
564607.1	4182940	27.162	2.61	2.61	1.5	ANNUAL	SRCGP1	5
564627.1	4182940	26.41319	2.55	2.55	1.5	ANNUAL	SRCGP1	5
564647.1	4182940	24.97901	2.52	2.52	1.5	ANNUAL	SRCGP1	5
564667.1	4182940	23.11708	2.47	2.47	1.5	ANNUAL	SRCGP1	5
564687.1	4182940	20.83696	2.66	2.66	1.5	ANNUAL	SRCGP1	5
564707.1	4182940	18.46553	2.88	2.88	1.5	ANNUAL	SRCGP1	5
564727.1	4182940	16.25464	2.98	2.98	1.5	ANNUAL	SRCGP1	5
564747.1	4182940	14.24777	3.04	3.04	1.5	ANNUAL	SRCGP1	5
564767.1	4182940	12.4712	3.05	3.05	1.5	ANNUAL	SRCGP1	5
564787.1	4182940	10.91988	3.03	3.03	1.5	ANNUAL	SRCGP1	5
564807.1	4182940	9.5676	3.04	3.04	1.5	ANNUAL	SRCGP1	5
564827.1	4182940	8.40506	3.13	3.13	1.5	ANNUAL	SRCGP1	5
564847.1	4182940	7.44582	3.05	3.05	1.5	ANNUAL	SRCGP1	5
564867.1	4182940	6.63745	2.91	2.91	1.5	ANNUAL	SRCGP1	5
564887.1	4182940	6.03421	1.75	1.97	1.5	ANNUAL	SRCGP1	5

564907.1	4182940	5.50532	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564927.1	4182940	4.96055	0.66	3.25	1.5	ANNUAL	SRCGP1	5
564947.1	4182940	4.40359	2.28	3.25	1.5	ANNUAL	SRCGP1	5
564967.1	4182940	3.94962	3.61	3.61	1.5	ANNUAL	SRCGP1	5
564987.1	4182940	3.61865	3.45	3.45	1.5	ANNUAL	SRCGP1	5
565007.1	4182940	3.32793	3.25	3.25	1.5	ANNUAL	SRCGP1	5
565027.1	4182940	3.06392	3.25	3.25	1.5	ANNUAL	SRCGP1	5
564047.1	4182960	0.8772	2.82	2.82	1.5	ANNUAL	SRCGP1	5
564067.1	4182960	0.93666	3.22	3.22	1.5	ANNUAL	SRCGP1	5
564087.1	4182960	1.0041	3.43	3.43	1.5	ANNUAL	SRCGP1	5
564107.1	4182960	1.08045	3.54	3.54	1.5	ANNUAL	SRCGP1	5
564127.1	4182960	1.16767	3.46	3.46	1.5	ANNUAL	SRCGP1	5
564147.1	4182960	1.26574	3.47	3.47	1.5	ANNUAL	SRCGP1	5
564167.1	4182960	1.37713	3.43	3.43	1.5	ANNUAL	SRCGP1	5
564187.1	4182960	1.50457	3.25	3.25	1.5	ANNUAL	SRCGP1	5
564207.1	4182960	1.64487	3.51	3.51	1.5	ANNUAL	SRCGP1	5
564227.1	4182960	1.80758	3.42	3.42	1.5	ANNUAL	SRCGP1	5
564247.1	4182960	1.99286	3.3	3.3	1.5	ANNUAL	SRCGP1	5
564267.1	4182960	2.20263	3.25	3.25	1.5	ANNUAL	SRCGP1	5
564287.1	4182960	2.44304	3.12	3.12	1.5	ANNUAL	SRCGP1	5
564307.1	4182960	2.71593	3.09	3.09	1.5	ANNUAL	SRCGP1	5
564327.1	4182960	3.02766	3.15	3.15	1.5	ANNUAL	SRCGP1	5
564347.1	4182960	3.39309	3.15	3.15	1.5	ANNUAL	SRCGP1	5
564367.1	4182960	3.83272	3.05	3.05	1.5	ANNUAL	SRCGP1	5
564387.1	4182960	4.35615	3.18	3.18	1.5	ANNUAL	SRCGP1	5
564407.1	4182960	4.99403	3.31	3.31	1.5	ANNUAL	SRCGP1	5
564427.1	4182960	5.78297	3.33	3.33	1.5	ANNUAL	SRCGP1	5
564447.1	4182960	6.7605	3.27	3.27	1.5	ANNUAL	SRCGP1	5
564467.1	4182960	7.94555	3.26	3.26	1.5	ANNUAL	SRCGP1	5
564487.1	4182960	9.4131	2.98	2.98	1.5	ANNUAL	SRCGP1	5
564507.1	4182960	11.11494	2.72	2.72	1.5	ANNUAL	SRCGP1	5
564527.1	4182960	12.91054	2.66	2.66	1.5	ANNUAL	SRCGP1	5
564547.1	4182960	14.5821	2.79	2.79	1.5	ANNUAL	SRCGP1	5
564567.1	4182960	16.0207	2.84	2.84	1.5	ANNUAL	SRCGP1	5
564587.1	4182960	17.03312	2.69	2.69	1.5	ANNUAL	SRCGP1	5
564607.1	4182960	17.3816	2.66	2.66	1.5	ANNUAL	SRCGP1	5
564627.1	4182960	17.19198	2.67	2.67	1.5	ANNUAL	SRCGP1	5
564647.1	4182960	16.62371	2.64	2.64	1.5	ANNUAL	SRCGP1	5
564667.1	4182960	15.7514	2.6	2.6	1.5	ANNUAL	SRCGP1	5
564687.1	4182960	14.59778	2.71	2.71	1.5	ANNUAL	SRCGP1	5
564707.1	4182960	13.28405	2.94	2.94	1.5	ANNUAL	SRCGP1	5
564727.1	4182960	12.03577	3.02	3.02	1.5	ANNUAL	SRCGP1	5
564747.1	4182960	10.86139	3.05	3.05	1.5	ANNUAL	SRCGP1	5
564767.1	4182960	9.67697	3.47	3.47	1.5	ANNUAL	SRCGP1	5
564787.1	4182960	8.78722	2.97	2.97	1.5	ANNUAL	SRCGP1	5
564807.1	4182960	7.89469	2.91	2.91	1.5	ANNUAL	SRCGP1	5
564827.1	4182960	7.11168	2.7	2.7	1.5	ANNUAL	SRCGP1	5

564847.1	4182960	6.38736	2.78	2.78	1.5	ANNUAL	SRCGP1	5
564867.1	4182960	5.73755	3.09	3.09	1.5	ANNUAL	SRCGP1	5
564887.1	4182960	5.26677	2.18	2.18	1.5	ANNUAL	SRCGP1	5
564907.1	4182960	4.85646	1.13	1.13	1.5	ANNUAL	SRCGP1	5
564927.1	4182960	4.45528	0.65	0.65	1.5	ANNUAL	SRCGP1	5
564947.1	4182960	4.06748	0.75	3.5	1.5	ANNUAL	SRCGP1	5
564967.1	4182960	3.62397	3.18	3.18	1.5	ANNUAL	SRCGP1	5
564987.1	4182960	3.33836	3.17	3.17	1.5	ANNUAL	SRCGP1	5
565007.1	4182960	3.08949	2.98	2.98	1.5	ANNUAL	SRCGP1	5
565027.1	4182960	2.86091	2.97	2.97	1.5	ANNUAL	SRCGP1	5
564047.1	4182980	0.85615	3.47	3.47	1.5	ANNUAL	SRCGP1	5
564067.1	4182980	0.91489	3.59	3.59	1.5	ANNUAL	SRCGP1	5
564087.1	4182980	0.98131	3.53	3.53	1.5	ANNUAL	SRCGP1	5
564107.1	4182980	1.05551	3.51	3.51	1.5	ANNUAL	SRCGP1	5
564127.1	4182980	1.13896	3.44	3.44	1.5	ANNUAL	SRCGP1	5
564147.1	4182980	1.23215	3.44	3.44	1.5	ANNUAL	SRCGP1	5
564167.1	4182980	1.33595	3.54	3.54	1.5	ANNUAL	SRCGP1	5
564187.1	4182980	1.45431	3.39	3.39	1.5	ANNUAL	SRCGP1	5
564207.1	4182980	1.58481	3.5	3.5	1.5	ANNUAL	SRCGP1	5
564227.1	4182980	1.73391	3.34	3.34	1.5	ANNUAL	SRCGP1	5
564247.1	4182980	1.90063	3.25	3.25	1.5	ANNUAL	SRCGP1	5
564267.1	4182980	2.08825	3.15	3.15	1.5	ANNUAL	SRCGP1	5
564287.1	4182980	2.29726	3.19	3.19	1.5	ANNUAL	SRCGP1	5
564307.1	4182980	2.53428	3.16	3.16	1.5	ANNUAL	SRCGP1	5
564327.1	4182980	2.80186	3.23	3.23	1.5	ANNUAL	SRCGP1	5
564347.1	4182980	3.11117	3.29	3.29	1.5	ANNUAL	SRCGP1	5
564367.1	4182980	3.47486	3.36	3.36	1.5	ANNUAL	SRCGP1	5
564387.1	4182980	3.91155	3.33	3.33	1.5	ANNUAL	SRCGP1	5
564407.1	4182980	4.42689	3.4	3.4	1.5	ANNUAL	SRCGP1	5
564427.1	4182980	5.04362	3.35	3.35	1.5	ANNUAL	SRCGP1	5
564447.1	4182980	5.76444	3.32	3.32	1.5	ANNUAL	SRCGP1	5
564467.1	4182980	6.60182	3.22	3.22	1.5	ANNUAL	SRCGP1	5
564487.1	4182980	7.56498	3.03	3.03	1.5	ANNUAL	SRCGP1	5
564507.1	4182980	8.57171	2.96	2.96	1.5	ANNUAL	SRCGP1	5
564527.1	4182980	9.56823	2.91	2.91	1.5	ANNUAL	SRCGP1	5
564547.1	4182980	10.49012	2.82	2.82	1.5	ANNUAL	SRCGP1	5
564567.1	4182980	11.21359	2.76	2.76	1.5	ANNUAL	SRCGP1	5
564587.1	4182980	11.7173	2.63	2.63	1.5	ANNUAL	SRCGP1	5
564607.1	4182980	11.94822	2.52	2.52	1.5	ANNUAL	SRCGP1	5
564627.1	4182980	11.85352	2.66	2.66	1.5	ANNUAL	SRCGP1	5
564647.1	4182980	11.54224	2.84	2.84	1.5	ANNUAL	SRCGP1	5
564667.1	4182980	11.11538	2.83	2.83	1.5	ANNUAL	SRCGP1	5
564687.1	4182980	10.53276	2.82	2.82	1.5	ANNUAL	SRCGP1	5
564707.1	4182980	9.82767	2.89	2.89	1.5	ANNUAL	SRCGP1	5
564727.1	4182980	9.14194	2.79	2.79	1.5	ANNUAL	SRCGP1	5
564747.1	4182980	8.45337	2.72	2.72	1.5	ANNUAL	SRCGP1	5
564767.1	4182980	7.73473	2.9	2.9	1.5	ANNUAL	SRCGP1	5

564787.1	4182980	7.10879	2.74	2.74	1.5	ANNUAL	SRCGP1	5
564807.1	4182980	6.50339	2.75	2.75	1.5	ANNUAL	SRCGP1	5
564827.1	4182980	5.96506	2.52	2.52	1.5	ANNUAL	SRCGP1	5
564847.1	4182980	5.44472	2.53	2.53	1.5	ANNUAL	SRCGP1	5
564867.1	4182980	4.97283	2.57	2.57	1.5	ANNUAL	SRCGP1	5
564887.1	4182980	4.57653	2.24	2.24	1.5	ANNUAL	SRCGP1	5
564907.1	4182980	4.21953	1.94	1.94	1.5	ANNUAL	SRCGP1	5
564927.1	4182980	3.9229	1.2	2.38	1.5	ANNUAL	SRCGP1	5
564947.1	4182980	3.64574	0.65	2.53	1.5	ANNUAL	SRCGP1	5
564967.1	4182980	3.29937	2.38	2.38	1.5	ANNUAL	SRCGP1	5
564987.1	4182980	3.0435	2.87	2.87	1.5	ANNUAL	SRCGP1	5
565007.1	4182980	2.83368	2.74	2.74	1.5	ANNUAL	SRCGP1	5
565027.1	4182980	2.64282	2.63	2.63	1.5	ANNUAL	SRCGP1	5
564047.1	4183000	0.83847	3.51	3.51	1.5	ANNUAL	SRCGP1	5
564067.1	4183000	0.89566	3.57	3.57	1.5	ANNUAL	SRCGP1	5
564087.1	4183000	0.96078	3.26	3.26	1.5	ANNUAL	SRCGP1	5
564107.1	4183000	1.03095	3.46	3.46	1.5	ANNUAL	SRCGP1	5
564127.1	4183000	1.10976	3.49	3.49	1.5	ANNUAL	SRCGP1	5
564147.1	4183000	1.19786	3.44	3.44	1.5	ANNUAL	SRCGP1	5
564167.1	4183000	1.29535	3.46	3.46	1.5	ANNUAL	SRCGP1	5
564187.1	4183000	1.40178	3.71	3.71	1.5	ANNUAL	SRCGP1	5
564207.1	4183000	1.52133	3.77	3.77	1.5	ANNUAL	SRCGP1	5
564227.1	4183000	1.65688	3.55	3.55	1.5	ANNUAL	SRCGP1	5
564247.1	4183000	1.80837	3.27	3.27	1.5	ANNUAL	SRCGP1	5
564267.1	4183000	1.97433	3.21	3.21	1.5	ANNUAL	SRCGP1	5
564287.1	4183000	2.15773	3.24	3.24	1.5	ANNUAL	SRCGP1	5
564307.1	4183000	2.36372	3.19	3.19	1.5	ANNUAL	SRCGP1	5
564327.1	4183000	2.5928	3.3	3.3	1.5	ANNUAL	SRCGP1	5
564347.1	4183000	2.85374	3.44	3.44	1.5	ANNUAL	SRCGP1	5
564367.1	4183000	3.15844	3.49	3.49	1.5	ANNUAL	SRCGP1	5
564387.1	4183000	3.51038	3.61	3.61	1.5	ANNUAL	SRCGP1	5
564407.1	4183000	3.92395	3.54	3.54	1.5	ANNUAL	SRCGP1	5
564427.1	4183000	4.39637	3.45	3.45	1.5	ANNUAL	SRCGP1	5
564447.1	4183000	4.92488	3.37	3.37	1.5	ANNUAL	SRCGP1	5
564467.1	4183000	5.51483	3.19	3.19	1.5	ANNUAL	SRCGP1	5
564487.1	4183000	6.14071	3.09	3.09	1.5	ANNUAL	SRCGP1	5
564507.1	4183000	6.75298	3.04	3.04	1.5	ANNUAL	SRCGP1	5
564527.1	4183000	7.36082	2.82	2.82	1.5	ANNUAL	SRCGP1	5
564547.1	4183000	7.94104	2.45	2.45	1.5	ANNUAL	SRCGP1	5
564567.1	4183000	8.30642	2.51	2.51	1.5	ANNUAL	SRCGP1	5
564587.1	4183000	8.53222	2.52	2.52	1.5	ANNUAL	SRCGP1	5
564607.1	4183000	8.60243	2.69	2.69	1.5	ANNUAL	SRCGP1	5
564627.1	4183000	8.58375	2.78	2.78	1.5	ANNUAL	SRCGP1	5
564647.1	4183000	8.44939	2.89	2.89	1.5	ANNUAL	SRCGP1	5
564667.1	4183000	8.23415	2.84	2.84	1.5	ANNUAL	SRCGP1	5
564687.1	4183000	7.91722	2.73	2.73	1.5	ANNUAL	SRCGP1	5
564707.1	4183000	7.4859	2.85	2.85	1.5	ANNUAL	SRCGP1	5

564727.1	4183000	7.07767	2.73	2.73	1.5	ANNUAL	SRCGP1	5
564747.1	4183000	6.6587	2.64	2.64	1.5	ANNUAL	SRCGP1	5
564767.1	4183000	6.23537	2.52	2.52	1.5	ANNUAL	SRCGP1	5
564787.1	4183000	5.81081	2.44	2.44	1.5	ANNUAL	SRCGP1	5
564807.1	4183000	5.38694	2.55	2.55	1.5	ANNUAL	SRCGP1	5
564827.1	4183000	4.9916	2.6	2.6	1.5	ANNUAL	SRCGP1	5
564847.1	4183000	4.59871	2.9	2.9	1.5	ANNUAL	SRCGP1	5
564867.1	4183000	4.25353	2.89	2.89	1.5	ANNUAL	SRCGP1	5
564887.1	4183000	3.93714	2.85	2.85	1.5	ANNUAL	SRCGP1	5
564907.1	4183000	3.6609	2.58	2.58	1.5	ANNUAL	SRCGP1	5
564927.1	4183000	3.42307	2.02	2.8	1.5	ANNUAL	SRCGP1	5
564947.1	4183000	3.24116	0.65	0.65	1.5	ANNUAL	SRCGP1	5
564967.1	4183000	3.01095	0.83	0.83	1.5	ANNUAL	SRCGP1	5
564987.1	4183000	2.77522	1.85	1.85	1.5	ANNUAL	SRCGP1	5
565007.1	4183000	2.58445	2.24	2.24	1.5	ANNUAL	SRCGP1	5
565027.1	4183000	2.42411	2.15	2.15	1.5	ANNUAL	SRCGP1	5
564047.1	4183020	0.82244	3.32	3.32	1.5	ANNUAL	SRCGP1	5
564067.1	4183020	0.87702	3.57	3.57	1.5	ANNUAL	SRCGP1	5
564087.1	4183020	0.93888	3.41	3.41	1.5	ANNUAL	SRCGP1	5
564107.1	4183020	1.00643	3.43	3.43	1.5	ANNUAL	SRCGP1	5
564127.1	4183020	1.08051	3.54	3.54	1.5	ANNUAL	SRCGP1	5
564147.1	4183020	1.164	3.32	3.32	1.5	ANNUAL	SRCGP1	5
564167.1	4183020	1.25519	3.25	3.25	1.5	ANNUAL	SRCGP1	5
564187.1	4183020	1.35167	3.72	3.72	1.5	ANNUAL	SRCGP1	5
564207.1	4183020	1.46211	3.61	3.61	1.5	ANNUAL	SRCGP1	5
564227.1	4183020	1.58518	3.34	3.34	1.5	ANNUAL	SRCGP1	5
564247.1	4183020	1.71877	3.27	3.27	1.5	ANNUAL	SRCGP1	5
564267.1	4183020	1.86467	3.29	3.29	1.5	ANNUAL	SRCGP1	5
564287.1	4183020	2.02374	3.41	3.41	1.5	ANNUAL	SRCGP1	5
564307.1	4183020	2.20327	3.25	3.25	1.5	ANNUAL	SRCGP1	5
564327.1	4183020	2.39608	3.52	3.52	1.5	ANNUAL	SRCGP1	5
564347.1	4183020	2.62019	3.44	3.44	1.5	ANNUAL	SRCGP1	5
564367.1	4183020	2.87427	3.42	3.42	1.5	ANNUAL	SRCGP1	5
564387.1	4183020	3.16087	3.46	3.46	1.5	ANNUAL	SRCGP1	5
564407.1	4183020	3.47873	3.56	3.56	1.5	ANNUAL	SRCGP1	5
564427.1	4183020	3.83347	3.49	3.49	1.5	ANNUAL	SRCGP1	5
564447.1	4183020	4.21884	3.36	3.36	1.5	ANNUAL	SRCGP1	5
564467.1	4183020	4.63526	3.12	3.12	1.5	ANNUAL	SRCGP1	5
564487.1	4183020	5.06628	2.83	2.83	1.5	ANNUAL	SRCGP1	5
564507.1	4183020	5.46523	2.69	2.69	1.5	ANNUAL	SRCGP1	5
564527.1	4183020	5.82101	2.68	2.68	1.5	ANNUAL	SRCGP1	5
564547.1	4183020	6.16349	2.37	2.37	1.5	ANNUAL	SRCGP1	5
564567.1	4183020	6.36931	2.45	2.45	1.5	ANNUAL	SRCGP1	5
564587.1	4183020	6.48479	2.49	2.49	1.5	ANNUAL	SRCGP1	5
564607.1	4183020	6.51469	2.67	2.67	1.5	ANNUAL	SRCGP1	5
564627.1	4183020	6.50902	2.77	2.77	1.5	ANNUAL	SRCGP1	5
564647.1	4183020	6.4378	2.92	2.92	1.5	ANNUAL	SRCGP1	5

564667.1	4183020	6.31397	2.91	2.91	1.5	ANNUAL	SRCGP1	5
564687.1	4183020	6.14825	2.61	2.61	1.5	ANNUAL	SRCGP1	5
564707.1	4183020	5.88397	2.66	2.66	1.5	ANNUAL	SRCGP1	5
564727.1	4183020	5.61468	2.64	2.64	1.5	ANNUAL	SRCGP1	5
564747.1	4183020	5.34702	2.56	2.56	1.5	ANNUAL	SRCGP1	5
564767.1	4183020	5.05595	2.63	2.63	1.5	ANNUAL	SRCGP1	5
564787.1	4183020	4.77056	2.58	2.58	1.5	ANNUAL	SRCGP1	5
564807.1	4183020	4.46968	2.79	2.79	1.5	ANNUAL	SRCGP1	5
564827.1	4183020	4.18443	2.96	2.96	1.5	ANNUAL	SRCGP1	5
564847.1	4183020	3.92488	2.88	2.88	1.5	ANNUAL	SRCGP1	5
564867.1	4183020	3.67715	2.72	2.72	1.5	ANNUAL	SRCGP1	5
564887.1	4183020	3.44062	2.54	2.54	1.5	ANNUAL	SRCGP1	5
564907.1	4183020	3.2119	2.51	2.51	1.5	ANNUAL	SRCGP1	5
564927.1	4183020	3.02368	1.92	1.92	1.5	ANNUAL	SRCGP1	5
564947.1	4183020	2.87132	0.78	0.78	1.5	ANNUAL	SRCGP1	5
564967.1	4183020	2.69547	0.61	0.61	1.5	ANNUAL	SRCGP1	5
564987.1	4183020	2.50458	1.39	2.62	1.5	ANNUAL	SRCGP1	5
565007.1	4183020	2.32359	2.58	2.58	1.5	ANNUAL	SRCGP1	5
565027.1	4183020	2.19391	2.39	2.39	1.5	ANNUAL	SRCGP1	5
564047.1	4183040	0.80691	3.19	3.19	1.5	ANNUAL	SRCGP1	5
564067.1	4183040	0.85903	3.54	3.54	1.5	ANNUAL	SRCGP1	5
564087.1	4183040	0.91752	3.52	3.52	1.5	ANNUAL	SRCGP1	5
564107.1	4183040	0.98182	3.46	3.46	1.5	ANNUAL	SRCGP1	5
564127.1	4183040	1.05161	3.53	3.53	1.5	ANNUAL	SRCGP1	5
564147.1	4183040	1.12805	3.57	3.57	1.5	ANNUAL	SRCGP1	5
564167.1	4183040	1.21321	3.33	3.33	1.5	ANNUAL	SRCGP1	5
564187.1	4183040	1.30223	3.69	3.69	1.5	ANNUAL	SRCGP1	5
564207.1	4183040	1.40164	3.7	3.7	1.5	ANNUAL	SRCGP1	5
564227.1	4183040	1.51104	3.58	3.58	1.5	ANNUAL	SRCGP1	5
564247.1	4183040	1.6298	3.5	3.5	1.5	ANNUAL	SRCGP1	5
564267.1	4183040	1.75911	3.4	3.4	1.5	ANNUAL	SRCGP1	5
564287.1	4183040	1.89611	3.59	3.59	1.5	ANNUAL	SRCGP1	5
564307.1	4183040	2.05044	3.38	3.38	1.5	ANNUAL	SRCGP1	5
564327.1	4183040	2.21922	3.25	3.25	1.5	ANNUAL	SRCGP1	5
564347.1	4183040	2.40398	3.29	3.29	1.5	ANNUAL	SRCGP1	5
564367.1	4183040	2.60899	3.37	3.37	1.5	ANNUAL	SRCGP1	5
564387.1	4183040	2.83509	3.45	3.45	1.5	ANNUAL	SRCGP1	5
564407.1	4183040	3.08082	3.5	3.5	1.5	ANNUAL	SRCGP1	5
564427.1	4183040	3.34314	3.51	3.51	1.5	ANNUAL	SRCGP1	5
564447.1	4183040	3.6222	3.41	3.41	1.5	ANNUAL	SRCGP1	5
564467.1	4183040	3.9137	3.24	3.24	1.5	ANNUAL	SRCGP1	5
564487.1	4183040	4.20472	2.99	2.99	1.5	ANNUAL	SRCGP1	5
564507.1	4183040	4.45762	2.97	2.97	1.5	ANNUAL	SRCGP1	5
564527.1	4183040	4.69261	2.79	2.79	1.5	ANNUAL	SRCGP1	5
564547.1	4183040	4.90446	2.46	2.46	1.5	ANNUAL	SRCGP1	5
564567.1	4183040	5.04151	2.39	2.39	1.5	ANNUAL	SRCGP1	5
564587.1	4183040	5.10186	2.52	2.52	1.5	ANNUAL	SRCGP1	5

564607.1	4183040	5.11294	2.71	2.71	1.5	ANNUAL	SRCGP1	5
564627.1	4183040	5.10224	2.83	2.83	1.5	ANNUAL	SRCGP1	5
564647.1	4183040	5.06556	2.9	2.9	1.5	ANNUAL	SRCGP1	5
564667.1	4183040	4.99062	2.89	2.89	1.5	ANNUAL	SRCGP1	5
564687.1	4183040	4.87104	2.79	2.79	1.5	ANNUAL	SRCGP1	5
564707.1	4183040	4.6946	2.92	2.92	1.5	ANNUAL	SRCGP1	5
564727.1	4183040	4.50098	3.13	3.13	1.5	ANNUAL	SRCGP1	5
564747.1	4183040	4.32565	3.08	3.08	1.5	ANNUAL	SRCGP1	5
564767.1	4183040	4.14869	2.95	2.95	1.5	ANNUAL	SRCGP1	5
564787.1	4183040	3.96453	2.78	2.78	1.5	ANNUAL	SRCGP1	5
564807.1	4183040	3.77127	2.68	2.68	1.5	ANNUAL	SRCGP1	5
564827.1	4183040	3.57957	2.58	2.58	1.5	ANNUAL	SRCGP1	5
564847.1	4183040	3.38887	2.51	2.51	1.5	ANNUAL	SRCGP1	5
564867.1	4183040	3.20028	2.44	2.44	1.5	ANNUAL	SRCGP1	5
564887.1	4183040	3.01107	2.46	2.46	1.5	ANNUAL	SRCGP1	5
564907.1	4183040	2.82686	2.53	2.53	1.5	ANNUAL	SRCGP1	5
564927.1	4183040	2.65703	2.49	2.49	1.5	ANNUAL	SRCGP1	5
564947.1	4183040	2.52608	1.61	1.61	1.5	ANNUAL	SRCGP1	5
564967.1	4183040	2.40809	0.62	0.62	1.5	ANNUAL	SRCGP1	5
564987.1	4183040	2.26748	0.68	2.91	1.5	ANNUAL	SRCGP1	5
565007.1	4183040	2.09412	2.56	2.56	1.5	ANNUAL	SRCGP1	5
565027.1	4183040	1.98009	2.64	2.64	1.5	ANNUAL	SRCGP1	5
564047.1	4183060	0.79162	3.15	3.15	1.5	ANNUAL	SRCGP1	5
564067.1	4183060	0.84189	3.38	3.38	1.5	ANNUAL	SRCGP1	5
564087.1	4183060	0.89691	3.51	3.51	1.5	ANNUAL	SRCGP1	5
564107.1	4183060	0.9576	3.43	3.43	1.5	ANNUAL	SRCGP1	5
564127.1	4183060	1.02263	3.55	3.55	1.5	ANNUAL	SRCGP1	5
564147.1	4183060	1.09281	3.72	3.72	1.5	ANNUAL	SRCGP1	5
564167.1	4183060	1.17005	3.66	3.66	1.5	ANNUAL	SRCGP1	5
564187.1	4183060	1.25317	3.67	3.67	1.5	ANNUAL	SRCGP1	5
564207.1	4183060	1.3419	3.82	3.82	1.5	ANNUAL	SRCGP1	5
564227.1	4183060	1.43939	3.72	3.72	1.5	ANNUAL	SRCGP1	5
564247.1	4183060	1.54512	3.52	3.52	1.5	ANNUAL	SRCGP1	5
564267.1	4183060	1.65801	3.38	3.38	1.5	ANNUAL	SRCGP1	5
564287.1	4183060	1.77782	3.34	3.34	1.5	ANNUAL	SRCGP1	5
564307.1	4183060	1.90465	3.44	3.44	1.5	ANNUAL	SRCGP1	5
564327.1	4183060	2.04113	3.57	3.57	1.5	ANNUAL	SRCGP1	5
564347.1	4183060	2.18916	3.73	3.73	1.5	ANNUAL	SRCGP1	5
564367.1	4183060	2.35054	3.87	3.87	1.5	ANNUAL	SRCGP1	5
564387.1	4183060	2.53171	3.67	3.67	1.5	ANNUAL	SRCGP1	5
564407.1	4183060	2.72078	3.63	3.63	1.5	ANNUAL	SRCGP1	5
564427.1	4183060	2.91972	3.54	3.54	1.5	ANNUAL	SRCGP1	5
564447.1	4183060	3.12589	3.44	3.44	1.5	ANNUAL	SRCGP1	5
564467.1	4183060	3.31828	3.73	3.73	1.5	ANNUAL	SRCGP1	5
564487.1	4183060	3.51668	3.56	3.56	1.5	ANNUAL	SRCGP1	5
564507.1	4183060	3.7157	2.97	2.97	1.5	ANNUAL	SRCGP1	5
564527.1	4183060	3.86104	2.93	2.93	1.5	ANNUAL	SRCGP1	5

564547.1	4183060	3.99004	2.66	2.66	1.5	ANNUAL	SRCGP1	5
564567.1	4183060	4.092	2.35	2.35	1.5	ANNUAL	SRCGP1	5
564587.1	4183060	4.12447	2.58	2.58	1.5	ANNUAL	SRCGP1	5
564607.1	4183060	4.13458	2.72	2.72	1.5	ANNUAL	SRCGP1	5
564627.1	4183060	4.12706	2.77	2.77	1.5	ANNUAL	SRCGP1	5
564647.1	4183060	4.09759	2.8	2.8	1.5	ANNUAL	SRCGP1	5
564667.1	4183060	4.02923	2.97	2.97	1.5	ANNUAL	SRCGP1	5
564687.1	4183060	3.93336	3.11	3.11	1.5	ANNUAL	SRCGP1	5
564707.1	4183060	3.83149	3.04	3.04	1.5	ANNUAL	SRCGP1	5
564727.1	4183060	3.7109	3.1	3.1	1.5	ANNUAL	SRCGP1	5
564747.1	4183060	3.61761	2.64	2.64	1.5	ANNUAL	SRCGP1	5
564767.1	4183060	3.4852	2.71	2.71	1.5	ANNUAL	SRCGP1	5
564787.1	4183060	3.3598	2.52	2.52	1.5	ANNUAL	SRCGP1	5
564807.1	4183060	3.21274	2.62	2.62	1.5	ANNUAL	SRCGP1	5
564827.1	4183060	3.06717	2.67	2.67	1.5	ANNUAL	SRCGP1	5
564847.1	4183060	2.92914	2.56	2.56	1.5	ANNUAL	SRCGP1	5
564867.1	4183060	2.78932	2.48	2.48	1.5	ANNUAL	SRCGP1	5
564887.1	4183060	2.64564	2.49	2.49	1.5	ANNUAL	SRCGP1	5
564907.1	4183060	2.50452	2.46	2.46	1.5	ANNUAL	SRCGP1	5
564927.1	4183060	2.36579	2.47	2.47	1.5	ANNUAL	SRCGP1	5
564947.1	4183060	2.2312	2.57	2.57	1.5	ANNUAL	SRCGP1	5
564967.1	4183060	2.15004	0.98	2.13	1.5	ANNUAL	SRCGP1	5
564987.1	4183060	2.04221	0.62	0.62	1.5	ANNUAL	SRCGP1	5
565007.1	4183060	1.90178	2.02	2.02	1.5	ANNUAL	SRCGP1	5
565027.1	4183060	1.78823	2.88	2.88	1.5	ANNUAL	SRCGP1	5
564047.1	4183080	0.77614	3.3	3.3	1.5	ANNUAL	SRCGP1	5
564067.1	4183080	0.82463	3.31	3.31	1.5	ANNUAL	SRCGP1	5
564087.1	4183080	0.87601	3.6	3.6	1.5	ANNUAL	SRCGP1	5
564107.1	4183080	0.93212	3.7	3.7	1.5	ANNUAL	SRCGP1	5
564127.1	4183080	0.99352	3.58	3.58	1.5	ANNUAL	SRCGP1	5
564147.1	4183080	1.0579	3.8	3.8	1.5	ANNUAL	SRCGP1	5
564167.1	4183080	1.12756	3.89	3.89	1.5	ANNUAL	SRCGP1	5
564187.1	4183080	1.20428	3.63	3.63	1.5	ANNUAL	SRCGP1	5
564207.1	4183080	1.28499	3.58	3.58	1.5	ANNUAL	SRCGP1	5
564227.1	4183080	1.37091	3.53	3.53	1.5	ANNUAL	SRCGP1	5
564247.1	4183080	1.46105	3.59	3.59	1.5	ANNUAL	SRCGP1	5
564267.1	4183080	1.55484	3.77	3.77	1.5	ANNUAL	SRCGP1	5
564287.1	4183080	1.6544	3.82	3.82	1.5	ANNUAL	SRCGP1	5
564307.1	4183080	1.76209	3.62	3.62	1.5	ANNUAL	SRCGP1	5
564327.1	4183080	1.87557	3.54	3.54	1.5	ANNUAL	SRCGP1	5
564347.1	4183080	1.99417	3.71	3.71	1.5	ANNUAL	SRCGP1	5
564367.1	4183080	2.12339	3.74	3.74	1.5	ANNUAL	SRCGP1	5
564387.1	4183080	2.26452	3.56	3.56	1.5	ANNUAL	SRCGP1	5
564407.1	4183080	2.4088	3.58	3.58	1.5	ANNUAL	SRCGP1	5
564427.1	4183080	2.55968	3.53	3.53	1.5	ANNUAL	SRCGP1	5
564447.1	4183080	2.71351	3.51	3.51	1.5	ANNUAL	SRCGP1	5
564467.1	4183080	2.86326	3.56	3.56	1.5	ANNUAL	SRCGP1	5

564487.1	4183080	2.98944	3.88	3.88	1.5	ANNUAL	SRCGP1	5
564507.1	4183080	3.11174	3.73	3.73	1.5	ANNUAL	SRCGP1	5
564527.1	4183080	3.20832	3.61	3.61	1.5	ANNUAL	SRCGP1	5
564547.1	4183080	3.28927	3.31	3.31	1.5	ANNUAL	SRCGP1	5
564567.1	4183080	3.36406	2.81	2.81	1.5	ANNUAL	SRCGP1	5
564587.1	4183080	3.41412	2.53	2.53	1.5	ANNUAL	SRCGP1	5
564607.1	4183080	3.42431	2.65	2.65	1.5	ANNUAL	SRCGP1	5
564627.1	4183080	3.41146	2.79	2.79	1.5	ANNUAL	SRCGP1	5
564647.1	4183080	3.3742	2.96	2.96	1.5	ANNUAL	SRCGP1	5
564667.1	4183080	3.33043	2.89	2.89	1.5	ANNUAL	SRCGP1	5
564687.1	4183080	3.26984	2.83	2.83	1.5	ANNUAL	SRCGP1	5
564707.1	4183080	3.19159	2.91	2.91	1.5	ANNUAL	SRCGP1	5
564727.1	4183080	3.10945	2.96	2.96	1.5	ANNUAL	SRCGP1	5
564747.1	4183080	3.04988	2.47	2.47	1.5	ANNUAL	SRCGP1	5
564767.1	4183080	2.94632	2.79	2.79	1.5	ANNUAL	SRCGP1	5
564787.1	4183080	2.85911	2.64	2.64	1.5	ANNUAL	SRCGP1	5
564807.1	4183080	2.7601	2.61	2.61	1.5	ANNUAL	SRCGP1	5
564827.1	4183080	2.65304	2.69	2.69	1.5	ANNUAL	SRCGP1	5
564847.1	4183080	2.54762	2.69	5.44	1.5	ANNUAL	SRCGP1	5
564867.1	4183080	2.44295	2.63	2.63	1.5	ANNUAL	SRCGP1	5
564887.1	4183080	2.33495	2.61	2.61	1.5	ANNUAL	SRCGP1	5
564907.1	4183080	2.22525	2.59	2.59	1.5	ANNUAL	SRCGP1	5
564927.1	4183080	2.11736	2.49	2.49	1.5	ANNUAL	SRCGP1	5
564947.1	4183080	2.00452	2.66	2.66	1.5	ANNUAL	SRCGP1	5
564967.1	4183080	1.92508	1.59	2.79	1.5	ANNUAL	SRCGP1	5
564987.1	4183080	1.84927	0.54	0.54	1.5	ANNUAL	SRCGP1	5
565007.1	4183080	1.74381	1.05	2	1.5	ANNUAL	SRCGP1	5
565027.1	4183080	1.6304	2.54	2.54	1.5	ANNUAL	SRCGP1	5
564047.1	4183100	0.76032	3.61	3.61	1.5	ANNUAL	SRCGP1	5
564067.1	4183100	0.80684	3.38	3.38	1.5	ANNUAL	SRCGP1	5
564087.1	4183100	0.85584	3.43	3.43	1.5	ANNUAL	SRCGP1	5
564107.1	4183100	0.90719	3.76	3.76	1.5	ANNUAL	SRCGP1	5
564127.1	4183100	0.96395	3.61	3.61	1.5	ANNUAL	SRCGP1	5
564147.1	4183100	1.02417	3.53	3.53	1.5	ANNUAL	SRCGP1	5
564167.1	4183100	1.08783	3.52	3.52	1.5	ANNUAL	SRCGP1	5
564187.1	4183100	1.15509	3.54	3.54	1.5	ANNUAL	SRCGP1	5
564207.1	4183100	1.2252	3.69	3.69	1.5	ANNUAL	SRCGP1	5
564227.1	4183100	1.29869	3.82	3.82	1.5	ANNUAL	SRCGP1	5
564247.1	4183100	1.37504	3.95	3.95	1.5	ANNUAL	SRCGP1	5
564267.1	4183100	1.45518	3.92	3.92	1.5	ANNUAL	SRCGP1	5
564287.1	4183100	1.53894	3.78	3.78	1.5	ANNUAL	SRCGP1	5
564307.1	4183100	1.62612	3.64	3.64	1.5	ANNUAL	SRCGP1	5
564327.1	4183100	1.71801	3.5	3.5	1.5	ANNUAL	SRCGP1	5
564347.1	4183100	1.81338	3.58	3.58	1.5	ANNUAL	SRCGP1	5
564367.1	4183100	1.91561	3.6	3.6	1.5	ANNUAL	SRCGP1	5
564387.1	4183100	2.02423	3.57	3.57	1.5	ANNUAL	SRCGP1	5
564407.1	4183100	2.13765	3.54	3.54	1.5	ANNUAL	SRCGP1	5

564427.1	4183100	2.25613	3.46	3.46	1.5	ANNUAL	SRCGP1	5
564447.1	4183100	2.37534	3.46	3.46	1.5	ANNUAL	SRCGP1	5
564467.1	4183100	2.48831	3.56	3.56	1.5	ANNUAL	SRCGP1	5
564487.1	4183100	2.58039	3.91	3.91	1.5	ANNUAL	SRCGP1	5
564507.1	4183100	2.66535	3.85	3.85	1.5	ANNUAL	SRCGP1	5
564527.1	4183100	2.72647	3.82	3.82	1.5	ANNUAL	SRCGP1	5
564547.1	4183100	2.77207	3.66	3.66	1.5	ANNUAL	SRCGP1	5
564567.1	4183100	2.82279	3.13	3.13	1.5	ANNUAL	SRCGP1	5
564587.1	4183100	2.8644	2.73	2.73	1.5	ANNUAL	SRCGP1	5
564607.1	4183100	2.87488	2.82	2.82	1.5	ANNUAL	SRCGP1	5
564627.1	4183100	2.87149	2.82	2.82	1.5	ANNUAL	SRCGP1	5
564647.1	4183100	2.84858	2.77	2.77	1.5	ANNUAL	SRCGP1	5
564667.1	4183100	2.80214	2.84	2.84	1.5	ANNUAL	SRCGP1	5
564687.1	4183100	2.75573	2.7	2.7	1.5	ANNUAL	SRCGP1	5
564707.1	4183100	2.70417	2.6	2.6	1.5	ANNUAL	SRCGP1	5
564727.1	4183100	2.65198	2.47	2.47	1.5	ANNUAL	SRCGP1	5
564747.1	4183100	2.58325	2.7	2.7	1.5	ANNUAL	SRCGP1	5
564767.1	4183100	2.51504	2.88	2.88	1.5	ANNUAL	SRCGP1	5
564787.1	4183100	2.44865	2.92	2.92	1.5	ANNUAL	SRCGP1	5
564807.1	4183100	2.3867	2.68	2.68	1.5	ANNUAL	SRCGP1	5
564827.1	4183100	2.30208	2.99	5.69	1.5	ANNUAL	SRCGP1	5
564847.1	4183100	2.19	4.2	5.44	1.5	ANNUAL	SRCGP1	5
564867.1	4183100	2.14904	2.89	6.11	1.5	ANNUAL	SRCGP1	5
564887.1	4183100	2.06894	2.83	6.11	1.5	ANNUAL	SRCGP1	5
564907.1	4183100	1.98463	2.82	2.82	1.5	ANNUAL	SRCGP1	5
564927.1	4183100	1.8967	2.86	2.86	1.5	ANNUAL	SRCGP1	5
564947.1	4183100	1.80598	2.99	2.99	1.5	ANNUAL	SRCGP1	5
564967.1	4183100	1.74438	1.74	2.89	1.5	ANNUAL	SRCGP1	5
564987.1	4183100	1.688	0.31	0.31	1.5	ANNUAL	SRCGP1	5
565007.1	4183100	1.59998	0.55	2.99	1.5	ANNUAL	SRCGP1	5
565027.1	4183100	1.48348	2.9	2.9	1.5	ANNUAL	SRCGP1	5
564047.1	4183120	0.74516	3.62	3.62	1.5	ANNUAL	SRCGP1	5
564067.1	4183120	0.78838	3.53	3.53	1.5	ANNUAL	SRCGP1	5
564087.1	4183120	0.83464	3.37	3.37	1.5	ANNUAL	SRCGP1	5
564107.1	4183120	0.88287	3.46	3.46	1.5	ANNUAL	SRCGP1	5
564127.1	4183120	0.9349	3.29	3.29	1.5	ANNUAL	SRCGP1	5
564147.1	4183120	0.98881	3.36	3.36	1.5	ANNUAL	SRCGP1	5
564167.1	4183120	1.04464	3.59	3.59	1.5	ANNUAL	SRCGP1	5
564187.1	4183120	1.10316	3.76	3.76	1.5	ANNUAL	SRCGP1	5
564207.1	4183120	1.1653	3.67	3.67	1.5	ANNUAL	SRCGP1	5
564227.1	4183120	1.22832	3.76	3.76	1.5	ANNUAL	SRCGP1	5
564247.1	4183120	1.29233	3.9	3.9	1.5	ANNUAL	SRCGP1	5
564267.1	4183120	1.35838	3.88	3.88	1.5	ANNUAL	SRCGP1	5
564287.1	4183120	1.42615	3.78	3.78	1.5	ANNUAL	SRCGP1	5
564307.1	4183120	1.49546	3.73	3.73	1.5	ANNUAL	SRCGP1	5
564327.1	4183120	1.56873	3.6	3.6	1.5	ANNUAL	SRCGP1	5
564347.1	4183120	1.64526	3.6	3.6	1.5	ANNUAL	SRCGP1	5

564367.1	4183120	1.72703	3.57	3.57	1.5	ANNUAL	SRCGP1	5
564387.1	4183120	1.81333	3.55	3.55	1.5	ANNUAL	SRCGP1	5
564407.1	4183120	1.90286	3.59	3.59	1.5	ANNUAL	SRCGP1	5
564427.1	4183120	1.99542	3.64	3.64	1.5	ANNUAL	SRCGP1	5
564447.1	4183120	2.09237	3.52	3.52	1.5	ANNUAL	SRCGP1	5
564467.1	4183120	2.18181	3.56	3.56	1.5	ANNUAL	SRCGP1	5
564487.1	4183120	2.25565	3.74	3.74	1.5	ANNUAL	SRCGP1	5
564507.1	4183120	2.30954	3.97	3.97	1.5	ANNUAL	SRCGP1	5
564527.1	4183120	2.35062	3.92	3.92	1.5	ANNUAL	SRCGP1	5
564547.1	4183120	2.37813	3.77	3.77	1.5	ANNUAL	SRCGP1	5
564567.1	4183120	2.41257	3.23	3.23	1.5	ANNUAL	SRCGP1	5
564587.1	4183120	2.43648	3.01	3.01	1.5	ANNUAL	SRCGP1	5
564607.1	4183120	2.46316	2.61	2.61	1.5	ANNUAL	SRCGP1	5
564627.1	4183120	2.45815	2.69	2.69	1.5	ANNUAL	SRCGP1	5
564647.1	4183120	2.43543	2.72	2.72	1.5	ANNUAL	SRCGP1	5
564667.1	4183120	2.39541	2.78	2.78	1.5	ANNUAL	SRCGP1	5
564687.1	4183120	2.35074	2.77	2.77	1.5	ANNUAL	SRCGP1	5
564707.1	4183120	2.30684	2.72	2.72	1.5	ANNUAL	SRCGP1	5
564727.1	4183120	2.26406	2.66	2.66	1.5	ANNUAL	SRCGP1	5
564747.1	4183120	2.21287	2.87	2.87	1.5	ANNUAL	SRCGP1	5
564767.1	4183120	2.16829	2.88	2.88	1.5	ANNUAL	SRCGP1	5
564787.1	4183120	2.11689	3.07	3.07	1.5	ANNUAL	SRCGP1	5
564807.1	4183120	2.06405	3.21	4.71	1.5	ANNUAL	SRCGP1	5
564827.1	4183120	1.95365	4.81	4.81	1.5	ANNUAL	SRCGP1	5
564847.1	4183120	1.87939	5.63	5.63	1.5	ANNUAL	SRCGP1	5
564867.1	4183120	1.83131	5.44	6.11	1.5	ANNUAL	SRCGP1	5
564887.1	4183120	1.84035	3.1	6.11	1.5	ANNUAL	SRCGP1	5
564907.1	4183120	1.77712	3.07	3.07	1.5	ANNUAL	SRCGP1	5
564927.1	4183120	1.71039	3.04	3.04	1.5	ANNUAL	SRCGP1	5
564947.1	4183120	1.63761	3.18	3.18	1.5	ANNUAL	SRCGP1	5
564967.1	4183120	1.58782	1.96	3.12	1.5	ANNUAL	SRCGP1	5
564987.1	4183120	1.54502	0.31	0.31	1.5	ANNUAL	SRCGP1	5
565007.1	4183120	1.4681	0.55	2.99	1.5	ANNUAL	SRCGP1	5
565027.1	4183120	1.36488	2.82	2.82	1.5	ANNUAL	SRCGP1	5
564047.1	4183140	0.72966	3.53	3.53	1.5	ANNUAL	SRCGP1	5
564067.1	4183140	0.76977	3.47	3.47	1.5	ANNUAL	SRCGP1	5
564087.1	4183140	0.81209	3.41	3.41	1.5	ANNUAL	SRCGP1	5
564107.1	4183140	0.85644	3.39	3.39	1.5	ANNUAL	SRCGP1	5
564127.1	4183140	0.90205	3.59	3.59	1.5	ANNUAL	SRCGP1	5
564147.1	4183140	0.9495	3.79	3.79	1.5	ANNUAL	SRCGP1	5
564167.1	4183140	0.99905	3.89	3.89	1.5	ANNUAL	SRCGP1	5
564187.1	4183140	1.05108	3.78	3.78	1.5	ANNUAL	SRCGP1	5
564207.1	4183140	1.10501	3.53	3.53	1.5	ANNUAL	SRCGP1	5
564227.1	4183140	1.15811	3.59	3.59	1.5	ANNUAL	SRCGP1	5
564247.1	4183140	1.21035	3.82	3.82	1.5	ANNUAL	SRCGP1	5
564267.1	4183140	1.26357	3.86	3.86	1.5	ANNUAL	SRCGP1	5
564287.1	4183140	1.31691	3.91	3.91	1.5	ANNUAL	SRCGP1	5

564307.1	4183140	1.37367	3.66	3.66	1.5	ANNUAL	SRCGP1	5
564327.1	4183140	1.43147	3.63	3.63	1.5	ANNUAL	SRCGP1	5
564347.1	4183140	1.49244	3.67	3.67	1.5	ANNUAL	SRCGP1	5
564367.1	4183140	1.55886	3.59	3.59	1.5	ANNUAL	SRCGP1	5
564387.1	4183140	1.63004	3.48	3.48	1.5	ANNUAL	SRCGP1	5
564407.1	4183140	1.70253	3.59	3.59	1.5	ANNUAL	SRCGP1	5
564427.1	4183140	1.77671	3.76	3.76	1.5	ANNUAL	SRCGP1	5
564447.1	4183140	1.8547	3.69	3.69	1.5	ANNUAL	SRCGP1	5
564467.1	4183140	1.92789	3.62	3.62	1.5	ANNUAL	SRCGP1	5
564487.1	4183140	1.98791	3.65	3.65	1.5	ANNUAL	SRCGP1	5
564507.1	4183140	2.02606	3.91	3.91	1.5	ANNUAL	SRCGP1	5
564527.1	4183140	2.04856	4.04	4.04	1.5	ANNUAL	SRCGP1	5
564547.1	4183140	2.07209	3.62	3.62	1.5	ANNUAL	SRCGP1	5
564567.1	4183140	2.08623	3.4	3.4	1.5	ANNUAL	SRCGP1	5
564587.1	4183140	2.10012	3.26	3.26	1.5	ANNUAL	SRCGP1	5
564607.1	4183140	2.12229	2.81	2.81	1.5	ANNUAL	SRCGP1	5
564627.1	4183140	2.1251	2.67	2.67	1.5	ANNUAL	SRCGP1	5
564647.1	4183140	2.10598	2.72	2.72	1.5	ANNUAL	SRCGP1	5
564667.1	4183140	2.06901	2.9	2.9	1.5	ANNUAL	SRCGP1	5
564687.1	4183140	2.02987	2.94	2.94	1.5	ANNUAL	SRCGP1	5
564707.1	4183140	1.99436	2.83	2.83	1.5	ANNUAL	SRCGP1	5
564727.1	4183140	1.95902	2.75	2.75	1.5	ANNUAL	SRCGP1	5
564747.1	4183140	1.90808	3.31	3.31	1.5	ANNUAL	SRCGP1	5
564767.1	4183140	1.8813	3.02	3.02	1.5	ANNUAL	SRCGP1	5
564787.1	4183140	1.84316	3.2	3.2	1.5	ANNUAL	SRCGP1	5
564807.1	4183140	1.78226	4.34	4.34	1.5	ANNUAL	SRCGP1	5
564827.1	4183140	1.71552	5.01	5.01	1.5	ANNUAL	SRCGP1	5
564847.1	4183140	1.66551	5.59	5.59	1.5	ANNUAL	SRCGP1	5
564867.1	4183140	1.64206	4.95	5.96	1.5	ANNUAL	SRCGP1	5
564887.1	4183140	1.64257	3.37	6.11	1.5	ANNUAL	SRCGP1	5
564907.1	4183140	1.59579	3.35	3.35	1.5	ANNUAL	SRCGP1	5
564927.1	4183140	1.54545	3.32	3.32	1.5	ANNUAL	SRCGP1	5
564947.1	4183140	1.49009	3.37	3.37	1.5	ANNUAL	SRCGP1	5
564967.1	4183140	1.43956	2.92	2.92	1.5	ANNUAL	SRCGP1	5
564987.1	4183140	1.41838	0.45	3.49	1.5	ANNUAL	SRCGP1	5
565007.1	4183140	1.35812	0.33	0.33	1.5	ANNUAL	SRCGP1	5
565027.1	4183140	1.2768	1.75	2.79	1.5	ANNUAL	SRCGP1	5
564047.1	4183160	0.71307	3.47	3.47	1.5	ANNUAL	SRCGP1	5
564067.1	4183160	0.74986	3.45	3.45	1.5	ANNUAL	SRCGP1	5
564087.1	4183160	0.78763	3.64	3.64	1.5	ANNUAL	SRCGP1	5
564107.1	4183160	0.82673	3.86	3.86	1.5	ANNUAL	SRCGP1	5
564127.1	4183160	0.86766	3.93	3.93	1.5	ANNUAL	SRCGP1	5
564147.1	4183160	0.90996	3.95	3.95	1.5	ANNUAL	SRCGP1	5
564167.1	4183160	0.95367	3.86	3.86	1.5	ANNUAL	SRCGP1	5
564187.1	4183160	0.99833	3.71	3.71	1.5	ANNUAL	SRCGP1	5
564207.1	4183160	1.04264	3.7	3.7	1.5	ANNUAL	SRCGP1	5
564227.1	4183160	1.08683	3.67	3.67	1.5	ANNUAL	SRCGP1	5

564247.1	4183160	1.12979	3.77	3.77	1.5	ANNUAL	SRCGP1	5
564267.1	4183160	1.17288	3.73	3.73	1.5	ANNUAL	SRCGP1	5
564287.1	4183160	1.21587	3.7	3.7	1.5	ANNUAL	SRCGP1	5
564307.1	4183160	1.25979	3.69	3.69	1.5	ANNUAL	SRCGP1	5
564327.1	4183160	1.30609	3.69	3.69	1.5	ANNUAL	SRCGP1	5
564347.1	4183160	1.35597	3.69	3.69	1.5	ANNUAL	SRCGP1	5
564367.1	4183160	1.41024	3.66	3.66	1.5	ANNUAL	SRCGP1	5
564387.1	4183160	1.46891	3.61	3.61	1.5	ANNUAL	SRCGP1	5
564407.1	4183160	1.53139	3.57	3.57	1.5	ANNUAL	SRCGP1	5
564427.1	4183160	1.59346	3.76	3.76	1.5	ANNUAL	SRCGP1	5
564447.1	4183160	1.65705	3.77	3.77	1.5	ANNUAL	SRCGP1	5
564467.1	4183160	1.7158	3.73	3.73	1.5	ANNUAL	SRCGP1	5
564487.1	4183160	1.76322	3.72	3.72	1.5	ANNUAL	SRCGP1	5
564507.1	4183160	1.79525	3.74	3.74	1.5	ANNUAL	SRCGP1	5
564527.1	4183160	1.81289	3.7	3.7	1.5	ANNUAL	SRCGP1	5
564547.1	4183160	1.82444	3.44	3.44	1.5	ANNUAL	SRCGP1	5
564567.1	4183160	1.82708	3.44	3.44	1.5	ANNUAL	SRCGP1	5
564587.1	4183160	1.8359	3.28	3.28	1.5	ANNUAL	SRCGP1	5
564607.1	4183160	1.85083	2.89	2.89	1.5	ANNUAL	SRCGP1	5
564627.1	4183160	1.85335	2.72	2.72	1.5	ANNUAL	SRCGP1	5
564647.1	4183160	1.83548	2.87	2.87	1.5	ANNUAL	SRCGP1	5
564667.1	4183160	1.80777	2.97	2.97	1.5	ANNUAL	SRCGP1	5
564687.1	4183160	1.77912	2.87	2.87	1.5	ANNUAL	SRCGP1	5
564707.1	4183160	1.74375	2.98	2.98	1.5	ANNUAL	SRCGP1	5
564727.1	4183160	1.70942	3.06	3.06	1.5	ANNUAL	SRCGP1	5
564747.1	4183160	1.67066	3.4	3.4	1.5	ANNUAL	SRCGP1	5
564767.1	4183160	1.64398	3.29	3.29	1.5	ANNUAL	SRCGP1	5
564787.1	4183160	1.60794	3.74	3.74	1.5	ANNUAL	SRCGP1	5
564807.1	4183160	1.54798	4.68	4.68	1.5	ANNUAL	SRCGP1	5
564827.1	4183160	1.51479	5.1	5.1	1.5	ANNUAL	SRCGP1	5
564847.1	4183160	1.47991	5.57	5.57	1.5	ANNUAL	SRCGP1	5
564867.1	4183160	1.50499	3.39	5.73	1.5	ANNUAL	SRCGP1	5
564887.1	4183160	1.47206	3.49	3.49	1.5	ANNUAL	SRCGP1	5
564907.1	4183160	1.43801	3.5	3.5	1.5	ANNUAL	SRCGP1	5
564927.1	4183160	1.40118	3.47	3.47	1.5	ANNUAL	SRCGP1	5
564947.1	4183160	1.35901	3.54	3.54	1.5	ANNUAL	SRCGP1	5
564967.1	4183160	1.31552	3.44	3.44	1.5	ANNUAL	SRCGP1	5
564987.1	4183160	1.30094	0.97	4.2	1.5	ANNUAL	SRCGP1	5
565007.1	4183160	1.25848	0.31	4.65	1.5	ANNUAL	SRCGP1	5
565027.1	4183160	1.19439	1.16	4.8	1.5	ANNUAL	SRCGP1	5
564047.1	4183180	0.69433	3.75	3.75	1.5	ANNUAL	SRCGP1	5
564067.1	4183180	0.72783	3.69	3.69	1.5	ANNUAL	SRCGP1	5
564087.1	4183180	0.76212	3.74	3.74	1.5	ANNUAL	SRCGP1	5
564107.1	4183180	0.79694	3.92	3.92	1.5	ANNUAL	SRCGP1	5
564127.1	4183180	0.83304	3.94	3.94	1.5	ANNUAL	SRCGP1	5
564147.1	4183180	0.86981	3.93	3.93	1.5	ANNUAL	SRCGP1	5
564167.1	4183180	0.90673	3.96	3.96	1.5	ANNUAL	SRCGP1	5

564187.1	4183180	0.94409	3.87	3.87	1.5	ANNUAL	SRCGP1	5
564207.1	4183180	0.98072	3.86	3.86	1.5	ANNUAL	SRCGP1	5
564227.1	4183180	1.0171	3.73	3.73	1.5	ANNUAL	SRCGP1	5
564247.1	4183180	1.05182	3.76	3.76	1.5	ANNUAL	SRCGP1	5
564267.1	4183180	1.08588	3.76	3.76	1.5	ANNUAL	SRCGP1	5
564287.1	4183180	1.11953	3.83	3.83	1.5	ANNUAL	SRCGP1	5
564307.1	4183180	1.15446	3.87	3.87	1.5	ANNUAL	SRCGP1	5
564327.1	4183180	1.19211	3.88	3.88	1.5	ANNUAL	SRCGP1	5
564347.1	4183180	1.2337	3.84	3.84	1.5	ANNUAL	SRCGP1	5
564367.1	4183180	1.27978	3.76	3.76	1.5	ANNUAL	SRCGP1	5
564387.1	4183180	1.32892	3.81	3.81	1.5	ANNUAL	SRCGP1	5
564407.1	4183180	1.38246	3.77	3.77	1.5	ANNUAL	SRCGP1	5
564427.1	4183180	1.43747	3.78	3.78	1.5	ANNUAL	SRCGP1	5
564447.1	4183180	1.49209	3.71	3.71	1.5	ANNUAL	SRCGP1	5
564467.1	4183180	1.54065	3.65	3.65	1.5	ANNUAL	SRCGP1	5
564487.1	4183180	1.5788	3.59	3.59	1.5	ANNUAL	SRCGP1	5
564507.1	4183180	1.60163	3.64	3.64	1.5	ANNUAL	SRCGP1	5
564527.1	4183180	1.61302	3.58	3.58	1.5	ANNUAL	SRCGP1	5
564547.1	4183180	1.61682	3.45	3.45	1.5	ANNUAL	SRCGP1	5
564567.1	4183180	1.61601	3.44	3.44	1.5	ANNUAL	SRCGP1	5
564587.1	4183180	1.62055	3.27	3.27	1.5	ANNUAL	SRCGP1	5
564607.1	4183180	1.62821	2.99	2.99	1.5	ANNUAL	SRCGP1	5
564627.1	4183180	1.62843	2.85	2.85	1.5	ANNUAL	SRCGP1	5
564647.1	4183180	1.6143	2.98	2.98	1.5	ANNUAL	SRCGP1	5
564667.1	4183180	1.59514	2.96	2.96	1.5	ANNUAL	SRCGP1	5
564687.1	4183180	1.57258	2.86	2.86	1.5	ANNUAL	SRCGP1	5
564707.1	4183180	1.54417	2.93	2.93	1.5	ANNUAL	SRCGP1	5
564727.1	4183180	1.50893	3.3	3.3	1.5	ANNUAL	SRCGP1	5
564747.1	4183180	1.47938	3.39	3.39	1.5	ANNUAL	SRCGP1	5
564767.1	4183180	1.4522	3.44	3.44	1.5	ANNUAL	SRCGP1	5
564787.1	4183180	1.41839	4.03	4.03	1.5	ANNUAL	SRCGP1	5
564807.1	4183180	1.36683	4.92	4.92	1.5	ANNUAL	SRCGP1	5
564827.1	4183180	1.33927	5.41	5.41	1.5	ANNUAL	SRCGP1	5
564847.1	4183180	1.35926	3.89	5.5	1.5	ANNUAL	SRCGP1	5
564867.1	4183180	1.34134	3.72	3.72	1.5	ANNUAL	SRCGP1	5
564887.1	4183180	1.31847	3.81	3.81	1.5	ANNUAL	SRCGP1	5
564907.1	4183180	1.29482	3.83	3.83	1.5	ANNUAL	SRCGP1	5
564927.1	4183180	1.26949	3.77	3.77	1.5	ANNUAL	SRCGP1	5
564947.1	4183180	1.23799	3.91	3.91	1.5	ANNUAL	SRCGP1	5
564967.1	4183180	1.20157	4.15	4.15	1.5	ANNUAL	SRCGP1	5
564987.1	4183180	1.17618	3.14	3.14	1.5	ANNUAL	SRCGP1	5
565007.1	4183180	1.15841	1.14	4.76	1.5	ANNUAL	SRCGP1	5
565027.1	4183180	1.08907	3.48	4.65	1.5	ANNUAL	SRCGP1	5
564047.1	4183200	0.67533	3.6	3.6	1.5	ANNUAL	SRCGP1	5
564067.1	4183200	0.70506	3.67	3.67	1.5	ANNUAL	SRCGP1	5
564087.1	4183200	0.73521	3.82	3.82	1.5	ANNUAL	SRCGP1	5
564107.1	4183200	0.76583	3.96	3.96	1.5	ANNUAL	SRCGP1	5

564127.1	4183200	0.7973	3.91	3.91	1.5	ANNUAL	SRCGP1	5
564147.1	4183200	0.82865	3.93	3.93	1.5	ANNUAL	SRCGP1	5
564167.1	4183200	0.8601	3.86	3.86	1.5	ANNUAL	SRCGP1	5
564187.1	4183200	0.89118	3.76	3.76	1.5	ANNUAL	SRCGP1	5
564207.1	4183200	0.92115	3.74	3.74	1.5	ANNUAL	SRCGP1	5
564227.1	4183200	0.94976	3.79	3.79	1.5	ANNUAL	SRCGP1	5
564247.1	4183200	0.97749	3.78	3.78	1.5	ANNUAL	SRCGP1	5
564267.1	4183200	1.0039	3.91	3.91	1.5	ANNUAL	SRCGP1	5
564287.1	4183200	1.03094	3.93	3.93	1.5	ANNUAL	SRCGP1	5
564307.1	4183200	1.05938	3.96	3.96	1.5	ANNUAL	SRCGP1	5
564327.1	4183200	1.09063	3.98	3.98	1.5	ANNUAL	SRCGP1	5
564347.1	4183200	1.12597	3.94	3.94	1.5	ANNUAL	SRCGP1	5
564367.1	4183200	1.16595	3.84	3.84	1.5	ANNUAL	SRCGP1	5
564387.1	4183200	1.20955	3.81	3.81	1.5	ANNUAL	SRCGP1	5
564407.1	4183200	1.25608	3.82	3.82	1.5	ANNUAL	SRCGP1	5
564427.1	4183200	1.30427	3.79	3.79	1.5	ANNUAL	SRCGP1	5
564447.1	4183200	1.35028	3.76	3.76	1.5	ANNUAL	SRCGP1	5
564467.1	4183200	1.38999	3.72	3.72	1.5	ANNUAL	SRCGP1	5
564487.1	4183200	1.41946	3.69	3.69	1.5	ANNUAL	SRCGP1	5
564507.1	4183200	1.43542	3.75	3.75	1.5	ANNUAL	SRCGP1	5
564527.1	4183200	1.44274	3.64	3.64	1.5	ANNUAL	SRCGP1	5
564547.1	4183200	1.44381	3.48	3.48	1.5	ANNUAL	SRCGP1	5
564567.1	4183200	1.44226	3.37	3.37	1.5	ANNUAL	SRCGP1	5
564587.1	4183200	1.44056	3.35	3.35	1.5	ANNUAL	SRCGP1	5
564607.1	4183200	1.44097	3.25	3.25	1.5	ANNUAL	SRCGP1	5
564627.1	4183200	1.43977	3.09	3.09	1.5	ANNUAL	SRCGP1	5
564647.1	4183200	1.42936	3.14	3.14	1.5	ANNUAL	SRCGP1	5
564667.1	4183200	1.41886	2.89	2.89	1.5	ANNUAL	SRCGP1	5
564687.1	4183200	1.39808	3	3	1.5	ANNUAL	SRCGP1	5
564707.1	4183200	1.37475	3.11	3.11	1.5	ANNUAL	SRCGP1	5
564727.1	4183200	1.34824	3.29	3.29	1.5	ANNUAL	SRCGP1	5
564747.1	4183200	1.31812	3.63	3.63	1.5	ANNUAL	SRCGP1	5
564767.1	4183200	1.2862	4.14	4.14	1.5	ANNUAL	SRCGP1	5
564787.1	4183200	1.24243	4.69	4.69	1.5	ANNUAL	SRCGP1	5
564807.1	4183200	1.21247	5.35	5.35	1.5	ANNUAL	SRCGP1	5
564827.1	4183200	1.22755	4.17	5.47	1.5	ANNUAL	SRCGP1	5
564847.1	4183200	1.21488	3.95	3.95	1.5	ANNUAL	SRCGP1	5
564867.1	4183200	1.19865	4.05	4.05	1.5	ANNUAL	SRCGP1	5
564887.1	4183200	1.18195	4.2	4.2	1.5	ANNUAL	SRCGP1	5
564907.1	4183200	1.16567	4.26	4.26	1.5	ANNUAL	SRCGP1	5
564927.1	4183200	1.14816	4.27	4.27	1.5	ANNUAL	SRCGP1	5
564947.1	4183200	1.12704	4.35	4.35	1.5	ANNUAL	SRCGP1	5
564967.1	4183200	1.10298	4.38	4.38	1.5	ANNUAL	SRCGP1	5
564987.1	4183200	1.07657	4.27	4.27	1.5	ANNUAL	SRCGP1	5
565007.1	4183200	1.04675	4.13	4.13	1.5	ANNUAL	SRCGP1	5
565027.1	4183200	1.01189	4.19	4.19	1.5	ANNUAL	SRCGP1	5
564047.1	4183220	0.65437	3.66	3.66	1.5	ANNUAL	SRCGP1	5

564067.1	4183220	0.68076	3.71	3.71	1.5	ANNUAL	SRCGP1	5
564087.1	4183220	0.70719	3.84	3.84	1.5	ANNUAL	SRCGP1	5
564107.1	4183220	0.73381	3.93	3.93	1.5	ANNUAL	SRCGP1	5
564127.1	4183220	0.76066	3.91	3.91	1.5	ANNUAL	SRCGP1	5
564147.1	4183220	0.78742	3.83	3.83	1.5	ANNUAL	SRCGP1	5
564167.1	4183220	0.81385	3.69	3.69	1.5	ANNUAL	SRCGP1	5
564187.1	4183220	0.83885	3.75	3.75	1.5	ANNUAL	SRCGP1	5
564207.1	4183220	0.86247	3.9	3.9	1.5	ANNUAL	SRCGP1	5
564227.1	4183220	0.88529	3.93	3.93	1.5	ANNUAL	SRCGP1	5
564247.1	4183220	0.90746	3.85	3.85	1.5	ANNUAL	SRCGP1	5
564267.1	4183220	0.92851	3.94	3.94	1.5	ANNUAL	SRCGP1	5
564287.1	4183220	0.94977	4.09	4.09	1.5	ANNUAL	SRCGP1	5
564307.1	4183220	0.97331	4.12	4.12	1.5	ANNUAL	SRCGP1	5
564327.1	4183220	1.00001	4.12	4.12	1.5	ANNUAL	SRCGP1	5
564347.1	4183220	1.03101	4.04	4.04	1.5	ANNUAL	SRCGP1	5
564367.1	4183220	1.0662	3.97	3.97	1.5	ANNUAL	SRCGP1	5
564387.1	4183220	1.10498	3.95	3.95	1.5	ANNUAL	SRCGP1	5
564407.1	4183220	1.14648	3.94	3.94	1.5	ANNUAL	SRCGP1	5
564427.1	4183220	1.18769	4.01	4.01	1.5	ANNUAL	SRCGP1	5
564447.1	4183220	1.22682	3.98	3.98	1.5	ANNUAL	SRCGP1	5
564467.1	4183220	1.25949	3.93	3.93	1.5	ANNUAL	SRCGP1	5
564487.1	4183220	1.28257	3.88	3.88	1.5	ANNUAL	SRCGP1	5
564507.1	4183220	1.29518	3.81	3.81	1.5	ANNUAL	SRCGP1	5
564527.1	4183220	1.29873	3.72	3.72	1.5	ANNUAL	SRCGP1	5
564547.1	4183220	1.29627	3.65	3.65	1.5	ANNUAL	SRCGP1	5
564567.1	4183220	1.29229	3.57	3.57	1.5	ANNUAL	SRCGP1	5
564587.1	4183220	1.28902	3.49	3.49	1.5	ANNUAL	SRCGP1	5
564607.1	4183220	1.28511	3.48	3.48	1.5	ANNUAL	SRCGP1	5
564627.1	4183220	1.28191	3.33	3.33	1.5	ANNUAL	SRCGP1	5
564647.1	4183220	1.27414	3.29	3.29	1.5	ANNUAL	SRCGP1	5
564667.1	4183220	1.26471	3.16	3.16	1.5	ANNUAL	SRCGP1	5
564687.1	4183220	1.24724	3.4	3.4	1.5	ANNUAL	SRCGP1	5
564707.1	4183220	1.22775	3.62	3.62	1.5	ANNUAL	SRCGP1	5
564727.1	4183220	1.20157	4.14	4.14	1.5	ANNUAL	SRCGP1	5
564747.1	4183220	1.17525	4.53	4.53	1.5	ANNUAL	SRCGP1	5
564767.1	4183220	1.1363	4.96	4.96	1.5	ANNUAL	SRCGP1	5
564787.1	4183220	1.10825	5.41	5.41	1.5	ANNUAL	SRCGP1	5
564807.1	4183220	1.11646	4.35	4.35	1.5	ANNUAL	SRCGP1	5
564827.1	4183220	1.10373	4.08	4.08	1.5	ANNUAL	SRCGP1	5
564847.1	4183220	1.08884	4.18	4.18	1.5	ANNUAL	SRCGP1	5
564867.1	4183220	1.07505	4.35	4.35	1.5	ANNUAL	SRCGP1	5
564887.1	4183220	1.06265	4.51	4.51	1.5	ANNUAL	SRCGP1	5
564907.1	4183220	1.04253	4.59	4.59	1.5	ANNUAL	SRCGP1	5
564927.1	4183220	1.03229	4.65	4.65	1.5	ANNUAL	SRCGP1	5
564947.1	4183220	1.01966	4.76	4.76	1.5	ANNUAL	SRCGP1	5
564967.1	4183220	1.01282	4.49	4.49	1.5	ANNUAL	SRCGP1	5
564987.1	4183220	0.99496	4.34	4.34	1.5	ANNUAL	SRCGP1	5

565007.1	4183220	0.97114	4.43	4.43	1.5	ANNUAL	SRCGP1	5
565027.1	4183220	0.95296	3.46	4.24	1.5	ANNUAL	SRCGP1	5
564047.1	4183240	0.63201	3.79	3.79	1.5	ANNUAL	SRCGP1	5
564067.1	4183240	0.65513	3.82	3.82	1.5	ANNUAL	SRCGP1	5
564087.1	4183240	0.67827	3.83	3.83	1.5	ANNUAL	SRCGP1	5
564107.1	4183240	0.70153	3.73	3.73	1.5	ANNUAL	SRCGP1	5
564127.1	4183240	0.72432	3.69	3.69	1.5	ANNUAL	SRCGP1	5
564147.1	4183240	0.74648	3.69	3.69	1.5	ANNUAL	SRCGP1	5
564167.1	4183240	0.76695	4.02	4.02	1.5	ANNUAL	SRCGP1	5
564187.1	4183240	0.78674	4.22	4.22	1.5	ANNUAL	SRCGP1	5
564207.1	4183240	0.80546	4.38	4.38	1.5	ANNUAL	SRCGP1	5
564227.1	4183240	0.82382	4.29	4.29	1.5	ANNUAL	SRCGP1	5
564247.1	4183240	0.84162	4.12	4.12	1.5	ANNUAL	SRCGP1	5
564267.1	4183240	0.85892	4.06	4.06	1.5	ANNUAL	SRCGP1	5
564287.1	4183240	0.87639	4.19	4.19	1.5	ANNUAL	SRCGP1	5
564307.1	4183240	0.89664	4.16	4.16	1.5	ANNUAL	SRCGP1	5
564327.1	4183240	0.92026	4.11	4.11	1.5	ANNUAL	SRCGP1	5
564347.1	4183240	0.9476	4.11	4.11	1.5	ANNUAL	SRCGP1	5
564367.1	4183240	0.97919	4.08	4.08	1.5	ANNUAL	SRCGP1	5
564387.1	4183240	1.01431	4.06	4.06	1.5	ANNUAL	SRCGP1	5
564407.1	4183240	1.05104	4.12	4.12	1.5	ANNUAL	SRCGP1	5
564427.1	4183240	1.08715	4.2	4.2	1.5	ANNUAL	SRCGP1	5
564447.1	4183240	1.12045	4.18	4.18	1.5	ANNUAL	SRCGP1	5
564467.1	4183240	1.14689	4.16	4.16	1.5	ANNUAL	SRCGP1	5
564487.1	4183240	1.16541	4.04	4.04	1.5	ANNUAL	SRCGP1	5
564507.1	4183240	1.17435	3.94	3.94	1.5	ANNUAL	SRCGP1	5
564527.1	4183240	1.17544	3.85	3.85	1.5	ANNUAL	SRCGP1	5
564547.1	4183240	1.17049	3.87	3.87	1.5	ANNUAL	SRCGP1	5
564567.1	4183240	1.16534	3.78	3.78	1.5	ANNUAL	SRCGP1	5
564587.1	4183240	1.16165	3.58	3.58	1.5	ANNUAL	SRCGP1	5
564607.1	4183240	1.1558	3.55	3.55	1.5	ANNUAL	SRCGP1	5
564627.1	4183240	1.1487	3.57	3.57	1.5	ANNUAL	SRCGP1	5
564647.1	4183240	1.14207	3.48	3.48	1.5	ANNUAL	SRCGP1	5
564667.1	4183240	1.12874	3.83	3.83	1.5	ANNUAL	SRCGP1	5
564687.1	4183240	1.11108	4.44	4.44	1.5	ANNUAL	SRCGP1	5
564707.1	4183240	1.08332	4.84	4.84	1.5	ANNUAL	SRCGP1	5
564727.1	4183240	1.06596	5.15	5.15	1.5	ANNUAL	SRCGP1	5
564747.1	4183240	1.04417	5.53	5.53	1.5	ANNUAL	SRCGP1	5
564767.1	4183240	1.02354	5.63	5.63	1.5	ANNUAL	SRCGP1	5
564787.1	4183240	1.00828	5.26	5.26	1.5	ANNUAL	SRCGP1	5
564807.1	4183240	1.01327	4.15	4.15	1.5	ANNUAL	SRCGP1	5
564827.1	4183240	0.99601	4.28	4.28	1.5	ANNUAL	SRCGP1	5
564847.1	4183240	0.98134	4.42	4.42	1.5	ANNUAL	SRCGP1	5
564867.1	4183240	0.95777	4.61	4.61	1.5	ANNUAL	SRCGP1	5
564887.1	4183240	0.94837	4.73	4.73	1.5	ANNUAL	SRCGP1	5
564907.1	4183240	0.9406	4.87	4.87	1.5	ANNUAL	SRCGP1	5
564927.1	4183240	0.93428	4.95	4.95	1.5	ANNUAL	SRCGP1	5

564947.1	4183240	0.92982	4.8	4.8	1.5	ANNUAL	SRCGP1	5
564967.1	4183240	0.92406	4.58	4.58	1.5	ANNUAL	SRCGP1	5
564987.1	4183240	0.91276	4.61	4.61	1.5	ANNUAL	SRCGP1	5
565007.1	4183240	0.90165	4.5	4.5	1.5	ANNUAL	SRCGP1	5
565027.1	4183240	0.89197	3.26	3.26	1.5	ANNUAL	SRCGP1	5
564047.1	4183260	0.60898	3.76	3.76	1.5	ANNUAL	SRCGP1	5
564067.1	4183260	0.62905	3.77	3.77	1.5	ANNUAL	SRCGP1	5
564087.1	4183260	0.64898	3.74	3.74	1.5	ANNUAL	SRCGP1	5
564107.1	4183260	0.6682	3.86	3.86	1.5	ANNUAL	SRCGP1	5
564127.1	4183260	0.68685	4	4	1.5	ANNUAL	SRCGP1	5
564147.1	4183260	0.70522	3.97	3.97	1.5	ANNUAL	SRCGP1	5
564167.1	4183260	0.72153	4.39	4.39	1.5	ANNUAL	SRCGP1	5
564187.1	4183260	0.72463	4.7	4.7	1.5	ANNUAL	SRCGP1	5
564207.1	4183260	0.74042	4.58	4.58	1.5	ANNUAL	SRCGP1	5
564227.1	4183260	0.767	4.49	4.49	1.5	ANNUAL	SRCGP1	5
564247.1	4183260	0.78113	4.32	4.32	1.5	ANNUAL	SRCGP1	5
564267.1	4183260	0.79503	4.29	4.29	1.5	ANNUAL	SRCGP1	5
564287.1	4183260	0.81023	4.26	4.26	1.5	ANNUAL	SRCGP1	5
564307.1	4183260	0.82772	4.28	4.28	1.5	ANNUAL	SRCGP1	5
564327.1	4183260	0.84867	4.29	4.29	1.5	ANNUAL	SRCGP1	5
564347.1	4183260	0.8734	4.33	4.33	1.5	ANNUAL	SRCGP1	5
564367.1	4183260	0.90203	4.36	4.36	1.5	ANNUAL	SRCGP1	5
564387.1	4183260	0.9343	4.31	4.31	1.5	ANNUAL	SRCGP1	5
564407.1	4183260	0.96803	4.28	4.28	1.5	ANNUAL	SRCGP1	5
564427.1	4183260	0.99962	4.39	4.39	1.5	ANNUAL	SRCGP1	5
564447.1	4183260	1.02904	4.26	4.26	1.5	ANNUAL	SRCGP1	5
564467.1	4183260	1.05116	4.19	4.19	1.5	ANNUAL	SRCGP1	5
564487.1	4183260	1.06428	4.18	4.18	1.5	ANNUAL	SRCGP1	5
564507.1	4183260	1.06783	4.29	4.29	1.5	ANNUAL	SRCGP1	5
564527.1	4183260	1.06981	3.96	3.96	1.5	ANNUAL	SRCGP1	5
564547.1	4183260	1.06451	3.95	3.95	1.5	ANNUAL	SRCGP1	5
564567.1	4183260	1.05845	3.86	3.86	1.5	ANNUAL	SRCGP1	5
564587.1	4183260	1.05066	3.87	3.87	1.5	ANNUAL	SRCGP1	5
564607.1	4183260	1.04109	4.01	4.01	1.5	ANNUAL	SRCGP1	5
564627.1	4183260	1.03252	4.05	8.2	1.5	ANNUAL	SRCGP1	5
564647.1	4183260	1.0209	4.42	4.42	1.5	ANNUAL	SRCGP1	5
564667.1	4183260	0.99588	4.81	4.81	1.5	ANNUAL	SRCGP1	5
564687.1	4183260	0.98268	5.41	5.41	1.5	ANNUAL	SRCGP1	5
564707.1	4183260	0.97396	5.62	5.62	1.5	ANNUAL	SRCGP1	5
564727.1	4183260	0.96193	5.88	5.88	1.5	ANNUAL	SRCGP1	5
564747.1	4183260	0.9508	5.76	5.76	1.5	ANNUAL	SRCGP1	5
564767.1	4183260	0.93582	5.65	5.65	1.5	ANNUAL	SRCGP1	5
564787.1	4183260	0.92925	4.62	4.62	1.5	ANNUAL	SRCGP1	5
564807.1	4183260	0.92321	4.26	4.26	1.5	ANNUAL	SRCGP1	5
564827.1	4183260	0.90614	4.38	4.38	1.5	ANNUAL	SRCGP1	5
564847.1	4183260	0.8808	4.58	4.58	1.5	ANNUAL	SRCGP1	5
564867.1	4183260	0.86794	4.76	4.76	1.5	ANNUAL	SRCGP1	5

564887.1	4183260	0.85892	4.86	4.86	1.5	ANNUAL	SRCGP1	5
564907.1	4183260	0.85189	5.03	5.03	1.5	ANNUAL	SRCGP1	5
564927.1	4183260	0.84766	5.11	5.11	1.5	ANNUAL	SRCGP1	5
564947.1	4183260	0.84734	4.85	4.85	1.5	ANNUAL	SRCGP1	5
564967.1	4183260	0.8443	4.8	4.8	1.5	ANNUAL	SRCGP1	5
564987.1	4183260	0.83923	4.76	4.76	1.5	ANNUAL	SRCGP1	5
565007.1	4183260	0.83767	4.26	4.26	1.5	ANNUAL	SRCGP1	5
565027.1	4183260	0.83772	2.41	3.97	1.5	ANNUAL	SRCGP1	5
564047.1	4183280	0.58521	3.75	3.75	1.5	ANNUAL	SRCGP1	5
564067.1	4183280	0.60206	3.94	3.94	1.5	ANNUAL	SRCGP1	5
564087.1	4183280	0.61792	4.4	4.4	1.5	ANNUAL	SRCGP1	5
564107.1	4183280	0.63415	4.45	4.45	1.5	ANNUAL	SRCGP1	5
564127.1	4183280	0.64988	4.45	4.45	1.5	ANNUAL	SRCGP1	5
564147.1	4183280	0.66463	4.54	4.54	1.5	ANNUAL	SRCGP1	5
564167.1	4183280	0.67866	4.54	4.54	1.5	ANNUAL	SRCGP1	5
564187.1	4183280	0.6799	4.7	4.7	1.5	ANNUAL	SRCGP1	5
564207.1	4183280	0.69239	4.6	4.6	1.5	ANNUAL	SRCGP1	5
564227.1	4183280	0.71466	4.57	4.57	1.5	ANNUAL	SRCGP1	5
564247.1	4183280	0.72575	4.48	4.48	1.5	ANNUAL	SRCGP1	5
564267.1	4183280	0.73733	4.42	4.42	1.5	ANNUAL	SRCGP1	5
564287.1	4183280	0.75058	4.36	4.36	1.5	ANNUAL	SRCGP1	5
564307.1	4183280	0.76565	4.55	4.55	1.5	ANNUAL	SRCGP1	5
564327.1	4183280	0.77156	4.6	4.6	1.5	ANNUAL	SRCGP1	5
564347.1	4183280	0.79376	4.63	4.63	1.5	ANNUAL	SRCGP1	5
564367.1	4183280	0.8194	4.67	4.67	1.5	ANNUAL	SRCGP1	5
564387.1	4183280	0.86424	4.55	4.55	1.5	ANNUAL	SRCGP1	5
564407.1	4183280	0.89544	4.42	4.42	1.5	ANNUAL	SRCGP1	5
564427.1	4183280	0.92459	4.36	4.36	1.5	ANNUAL	SRCGP1	5
564447.1	4183280	0.94936	4.29	4.29	1.5	ANNUAL	SRCGP1	5
564467.1	4183280	0.9661	4.37	4.37	1.5	ANNUAL	SRCGP1	5
564487.1	4183280	0.9746	4.49	4.49	1.5	ANNUAL	SRCGP1	5
564507.1	4183280	0.95896	4.59	4.59	1.5	ANNUAL	SRCGP1	5
564527.1	4183280	0.97782	4.13	4.13	1.5	ANNUAL	SRCGP1	5
564547.1	4183280	0.97264	4.06	4.06	1.5	ANNUAL	SRCGP1	5
564567.1	4183280	0.96501	4.04	9.25	1.5	ANNUAL	SRCGP1	5
564587.1	4183280	0.95618	4.06	10.61	1.5	ANNUAL	SRCGP1	5
564607.1	4183280	0.9467	4.09	10.61	1.5	ANNUAL	SRCGP1	5
564627.1	4183280	0.93509	4.36	10.61	1.5	ANNUAL	SRCGP1	5
564647.1	4183280	0.90115	5.45	9.49	1.5	ANNUAL	SRCGP1	5
564667.1	4183280	0.88168	6.68	6.68	1.5	ANNUAL	SRCGP1	5
564687.1	4183280	0.8791	6.67	6.67	1.5	ANNUAL	SRCGP1	5
564707.1	4183280	0.87609	6.68	6.68	1.5	ANNUAL	SRCGP1	5
564727.1	4183280	0.88232	5.66	6.74	1.5	ANNUAL	SRCGP1	5
564747.1	4183280	0.87963	5.06	5.06	1.5	ANNUAL	SRCGP1	5
564767.1	4183280	0.87876	4.43	5.37	1.5	ANNUAL	SRCGP1	5
564787.1	4183280	0.86378	4.32	4.32	1.5	ANNUAL	SRCGP1	5
564807.1	4183280	0.84576	4.49	4.49	1.5	ANNUAL	SRCGP1	5

564827.1	4183280	0.82073	4.62	4.62	1.5	ANNUAL	SRCGP1	5
564847.1	4183280	0.80437	4.81	4.81	1.5	ANNUAL	SRCGP1	5
564867.1	4183280	0.79082	4.99	4.99	1.5	ANNUAL	SRCGP1	5
564887.1	4183280	0.78036	5.17	5.17	1.5	ANNUAL	SRCGP1	5
564907.1	4183280	0.77364	5.28	5.28	1.5	ANNUAL	SRCGP1	5
564927.1	4183280	0.77215	5.1	5.1	1.5	ANNUAL	SRCGP1	5
564947.1	4183280	0.77178	4.99	4.99	1.5	ANNUAL	SRCGP1	5
564967.1	4183280	0.76844	5.3	5.3	1.5	ANNUAL	SRCGP1	5
564987.1	4183280	0.7687	5.09	5.09	1.5	ANNUAL	SRCGP1	5
565007.1	4183280	0.78154	3.23	4.9	1.5	ANNUAL	SRCGP1	5
565027.1	4183280	0.78579	1.37	4.9	1.5	ANNUAL	SRCGP1	5
564047.1	4183300	0.56052	4.04	4.04	1.5	ANNUAL	SRCGP1	5
564067.1	4183300	0.56587	4.64	4.64	1.5	ANNUAL	SRCGP1	5
564087.1	4183300	0.57835	4.87	4.87	1.5	ANNUAL	SRCGP1	5
564107.1	4183300	0.59065	5.02	5.02	1.5	ANNUAL	SRCGP1	5
564127.1	4183300	0.60468	4.66	4.66	1.5	ANNUAL	SRCGP1	5
564147.1	4183300	0.61587	4.81	4.81	1.5	ANNUAL	SRCGP1	5
564167.1	4183300	0.62745	4.71	4.71	1.5	ANNUAL	SRCGP1	5
564187.1	4183300	0.63763	4.74	4.74	1.5	ANNUAL	SRCGP1	5
564207.1	4183300	0.64701	4.76	4.76	1.5	ANNUAL	SRCGP1	5
564227.1	4183300	0.65629	4.66	4.66	1.5	ANNUAL	SRCGP1	5
564247.1	4183300	0.67536	4.57	4.57	1.5	ANNUAL	SRCGP1	5
564267.1	4183300	0.68521	4.51	4.51	1.5	ANNUAL	SRCGP1	5
564287.1	4183300	0.69691	4.49	4.49	1.5	ANNUAL	SRCGP1	5
564307.1	4183300	0.69931	4.66	4.66	1.5	ANNUAL	SRCGP1	5
564327.1	4183300	0.71615	4.76	4.76	1.5	ANNUAL	SRCGP1	5
564347.1	4183300	0.73714	4.78	4.78	1.5	ANNUAL	SRCGP1	5
564367.1	4183300	0.76158	4.78	4.78	1.5	ANNUAL	SRCGP1	5
564387.1	4183300	0.80394	4.54	4.54	1.5	ANNUAL	SRCGP1	5
564407.1	4183300	0.83202	4.47	4.47	1.5	ANNUAL	SRCGP1	5
564427.1	4183300	0.85748	4.46	4.46	1.5	ANNUAL	SRCGP1	5
564447.1	4183300	0.86054	4.78	4.78	1.5	ANNUAL	SRCGP1	5
564467.1	4183300	0.87393	4.78	4.78	1.5	ANNUAL	SRCGP1	5
564487.1	4183300	0.87901	4.88	4.88	1.5	ANNUAL	SRCGP1	5
564507.1	4183300	0.87892	4.91	4.91	1.5	ANNUAL	SRCGP1	5
564527.1	4183300	0.89601	4.49	4.49	1.5	ANNUAL	SRCGP1	5
564547.1	4183300	0.89334	4.1	4.1	1.5	ANNUAL	SRCGP1	5
564567.1	4183300	0.88456	4.17	10.61	1.5	ANNUAL	SRCGP1	5
564587.1	4183300	0.87438	4.27	10.61	1.5	ANNUAL	SRCGP1	5
564607.1	4183300	0.83672	5.69	10.61	1.5	ANNUAL	SRCGP1	5
564627.1	4183300	0.80128	7.97	8.87	1.5	ANNUAL	SRCGP1	5
564647.1	4183300	0.79145	8.24	8.24	1.5	ANNUAL	SRCGP1	5
564667.1	4183300	0.78869	8.15	8.15	1.5	ANNUAL	SRCGP1	5
564687.1	4183300	0.79021	7.89	7.89	1.5	ANNUAL	SRCGP1	5
564707.1	4183300	0.81119	5.79	7.8	1.5	ANNUAL	SRCGP1	5
564727.1	4183300	0.83109	4.15	7.8	1.5	ANNUAL	SRCGP1	5
564747.1	4183300	0.82395	4.08	4.08	1.5	ANNUAL	SRCGP1	5

564767.1	4183300	0.81152	4.26	4.26	1.5	ANNUAL	SRCGP1	5
564787.1	4183300	0.79596	4.51	4.51	1.5	ANNUAL	SRCGP1	5
564807.1	4183300	0.77306	4.73	4.73	1.5	ANNUAL	SRCGP1	5
564827.1	4183300	0.75575	4.89	4.89	1.5	ANNUAL	SRCGP1	5
564847.1	4183300	0.73966	5.04	5.04	1.5	ANNUAL	SRCGP1	5
564867.1	4183300	0.72519	5.25	5.25	1.5	ANNUAL	SRCGP1	5
564887.1	4183300	0.71366	5.44	5.44	1.5	ANNUAL	SRCGP1	5
564907.1	4183300	0.70759	5.34	5.34	1.5	ANNUAL	SRCGP1	5
564927.1	4183300	0.70459	5.24	5.24	1.5	ANNUAL	SRCGP1	5
564947.1	4183300	0.70053	5.61	5.61	1.5	ANNUAL	SRCGP1	5
564967.1	4183300	0.69881	5.9	5.9	1.5	ANNUAL	SRCGP1	5
564987.1	4183300	0.70603	5.04	5.12	1.5	ANNUAL	SRCGP1	5
565007.1	4183300	0.72579	2.49	5.82	1.5	ANNUAL	SRCGP1	5
565027.1	4183300	0.73329	0.63	5.82	1.5	ANNUAL	SRCGP1	5
564047.1	4183320	0.53593	4.3	4.3	1.5	ANNUAL	SRCGP1	5
564067.1	4183320	0.53965	4.66	4.66	1.5	ANNUAL	SRCGP1	5
564087.1	4183320	0.54963	4.98	4.98	1.5	ANNUAL	SRCGP1	5
564107.1	4183320	0.5597	5.14	5.14	1.5	ANNUAL	SRCGP1	5
564127.1	4183320	0.57035	5.03	5.03	1.5	ANNUAL	SRCGP1	5
564147.1	4183320	0.5801	5	5	1.5	ANNUAL	SRCGP1	5
564167.1	4183320	0.58891	5.03	5.03	1.5	ANNUAL	SRCGP1	5
564187.1	4183320	0.5972	5.01	5.01	1.5	ANNUAL	SRCGP1	5
564207.1	4183320	0.60426	5.11	5.11	1.5	ANNUAL	SRCGP1	5
564227.1	4183320	0.61192	4.96	4.96	1.5	ANNUAL	SRCGP1	5
564247.1	4183320	0.61986	4.77	4.77	1.5	ANNUAL	SRCGP1	5
564267.1	4183320	0.62818	4.72	4.72	1.5	ANNUAL	SRCGP1	5
564287.1	4183320	0.63822	4.74	4.74	1.5	ANNUAL	SRCGP1	5
564307.1	4183320	0.6509	4.82	4.82	1.5	ANNUAL	SRCGP1	5
564327.1	4183320	0.66698	4.91	4.91	1.5	ANNUAL	SRCGP1	5
564347.1	4183320	0.68779	4.81	4.81	1.5	ANNUAL	SRCGP1	5
564367.1	4183320	0.71175	4.71	4.71	1.5	ANNUAL	SRCGP1	5
564387.1	4183320	0.73695	4.7	4.7	1.5	ANNUAL	SRCGP1	5
564407.1	4183320	0.76169	4.72	4.72	1.5	ANNUAL	SRCGP1	5
564427.1	4183320	0.7839	4.71	4.71	1.5	ANNUAL	SRCGP1	5
564447.1	4183320	0.79902	4.9	4.9	1.5	ANNUAL	SRCGP1	5
564467.1	4183320	0.80666	5.16	5.16	1.5	ANNUAL	SRCGP1	5
564487.1	4183320	0.81289	4.94	4.94	1.5	ANNUAL	SRCGP1	5
564507.1	4183320	0.81331	4.81	4.81	1.5	ANNUAL	SRCGP1	5
564527.1	4183320	0.82781	4.43	4.43	1.5	ANNUAL	SRCGP1	5
564547.1	4183320	0.82284	4.26	4.26	1.5	ANNUAL	SRCGP1	5
564567.1	4183320	0.81461	4.25	10.61	1.5	ANNUAL	SRCGP1	5
564587.1	4183320	0.76764	6.8	10.61	1.5	ANNUAL	SRCGP1	5
564607.1	4183320	0.72944	9.5	9.5	1.5	ANNUAL	SRCGP1	5
564627.1	4183320	0.71915	9.62	9.62	1.5	ANNUAL	SRCGP1	5
564647.1	4183320	0.71387	9.46	9.46	1.5	ANNUAL	SRCGP1	5
564667.1	4183320	0.73035	7.39	9.98	1.5	ANNUAL	SRCGP1	5
564687.1	4183320	0.75359	4.87	10.1	1.5	ANNUAL	SRCGP1	5

564707.1	4183320	0.76811	4.1	8.77	1.5	ANNUAL	SRCGP1	5
564727.1	4183320	0.76435	4.24	4.24	1.5	ANNUAL	SRCGP1	5
564747.1	4183320	0.75808	4.39	4.39	1.5	ANNUAL	SRCGP1	5
564767.1	4183320	0.74367	4.6	4.6	1.5	ANNUAL	SRCGP1	5
564787.1	4183320	0.73089	4.83	4.83	1.5	ANNUAL	SRCGP1	5
564807.1	4183320	0.71551	5.06	5.06	1.5	ANNUAL	SRCGP1	5
564827.1	4183320	0.69934	5.24	5.24	1.5	ANNUAL	SRCGP1	5
564847.1	4183320	0.6833	5.43	5.43	1.5	ANNUAL	SRCGP1	5
564867.1	4183320	0.66869	5.61	5.61	1.5	ANNUAL	SRCGP1	5
564887.1	4183320	0.65799	5.56	5.56	1.5	ANNUAL	SRCGP1	5
564907.1	4183320	0.65095	5.39	5.39	1.5	ANNUAL	SRCGP1	5
564927.1	4183320	0.64214	5.92	5.92	1.5	ANNUAL	SRCGP1	5
564947.1	4183320	0.63823	6.19	6.19	1.5	ANNUAL	SRCGP1	5
564967.1	4183320	0.64188	5.71	5.71	1.5	ANNUAL	SRCGP1	5
564987.1	4183320	0.65923	4.27	4.27	1.5	ANNUAL	SRCGP1	5
565007.1	4183320	0.67147	2.05	5.82	1.5	ANNUAL	SRCGP1	5
565027.1	4183320	0.679	0.56	5.12	1.5	ANNUAL	SRCGP1	5

** CONCUNIT ug/m^3

** DEPUNIT g/m^2

FOR SOURCE GROUP: SRCGP1

NUM YRS NET ID
_____

B-3 Construction HRA

Estuary Park

Residential Receptors - Unmitigated Construction Cancer Risk and Chronic Hazard Index

Haul Truck Trip Lengths

Source Name	One-Way Trip Length (mi)		AERMOD Modeled Length (m)		Modeled Fraction	
	Haul	Vendor	Haul	Vendor	Haul	Vendor
T_WB	20	7.3	776	776	0.024	0.066
T_EB	20	7.3	776	776	0.024	0.066

AERMOD Variable Emissions

HROFDY	24	hr/day

		Days					Total Unmitigated DPM (tons)		
Start		1/1/2024	1/1/2024	1/1/2026					
Stop		3/31/2024	12/31/2025						
		90	730						
Phase Name	Start Date	End Date	3rd Trimester	Age 0<2	Age 2<16	Workdays	Exposure Days	Onsite Offroad	Haul Truck	Vendor Truck
Construction	1/1/2024	6/3/2025	91.00	428.00	0	372	519	1.95E-01	4.90E-03	9.80E-03

			Total Unmitigated DPM (g/s)		
Phase Name	Start Date	End Date	CSTN	T_WB	T_EB
Construction	1/1/2024	6/3/2025	5.50E-03	1.55E-05	1.55E-05

0

Risk Factors

	Abbreviation	UOM	3rd Trimester	0<2	Age 2<16
Daily Breathing Rate (95th %'ile)	DBR	L/kg-day	361	1090	572
Fraction Of Time At Home	FAH	unitless	0.85	0.85	0.72
Exposure Frequency	EF	days/year	0.96	0.96	0.96
Age Sensitivity Factor	ASF	unitless	10	10	3
Inhalation Absorption Factor	A	unitless	1	1	1
Conversion Factor	CF_1	m^3/L	0.001	0.001	0.001
Conversion Factor	CF_2	$\mu g/m^3$	0.001	0.001	0.001
Cancer Potency Factor (diesel exhau	CPF	$mg/kg\text{-}day^{-1}$	1.1	1.1	1.1
Averaging Time (for residential expo	AT	years	70.00	70.00	70.00

Intake Factor for Inhalation, IF (m^3/kg-day)

Phase Name	Equation	3rd Trimester	0<2	2<16
Construction	DBR*FAH*EF *ED*ASF*A*	0.01	0.15	0.00

Risk Calculation Part 1, R1

	3rd Trimester	0<2	2<16
IF*CPF*CF	1.15E-05	1.64E-04	0.00E+00

REL

DPM	5	μ/m^3

	Cancer Risk	UTM X	UTM Y	
Cancer Risk	19.1	564467.1	4182859.82	Residence
Chronic Risk	0.022	564467.1	4182859.82	Residence

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Risk Calculation Part 2, $\sum R1*C_{DPM}$ 12

		Construction Emissions								HI	
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total	3rd Trimester	0<2	2<16	Total	C_{DPM}/REL	
564047.1	4182339.82	3.83E-03	1.08E-05	1.08E-05	3.85E-03	4.43E-08	6.30E-07	0.00E+00	0.67	0.00	0
564067.1	4182339.82	3.91E-03	1.10E-05	1.10E-05	3.93E-03	4.53E-08	6.43E-07	0.00E+00	0.69	0.00	0
564087.1	4182339.82	3.98E-03	1.12E-05	1.12E-05	4.00E-03	4.61E-08	6.55E-07	0.00E+00	0.70	0.00	0
564107.1	4182339.82	4.04E-03	1.14E-05	1.14E-05	4.06E-03	4.68E-08	6.64E-07	0.00E+00	0.71	0.00	0
564127.1	4182339.82	4.07E-03	1.15E-05	1.15E-05	4.09E-03	4.72E-08	6.70E-07	0.00E+00	0.72	0.00	0
564147.1	4182339.82	4.08E-03	1.15E-05	1.15E-05	4.10E-03	4.73E-08	6.71E-07	0.00E+00	0.72	0.00	0
564167.1	4182339.82	4.05E-03	1.14E-05	1.14E-05	4.07E-03	4.70E-08	6.67E-07	0.00E+00	0.71	0.00	0
564187.1	4182339.82	4.01E-03	1.13E-05	1.13E-05	4.03E-03	4.65E-08	6.60E-07	0.00E+00	0.71	0.00	0
564207.1	4182339.82	3.94E-03	1.11E-05	1.11E-05	3.96E-03	4.56E-08	6.48E-07	0.00E+00	0.69	0.00	0
564227.1	4182339.82	3.86E-03	1.09E-05	1.09E-05	3.88E-03	4.47E-08	6.35E-07	0.00E+00	0.68	0.00	0
564247.1	4182339.82	3.79E-03	1.07E-05	1.07E-05	3.81E-03	4.39E-08	6.23E-07	0.00E+00	0.67	0.00	0
564267.1	4182339.82	3.71E-03	1.05E-05	1.05E-05	3.73E-03	4.30E-08	6.11E-07	0.00E+00	0.65	0.00	0
564287.1	4182339.82	3.65E-03	1.03E-05	1.03E-05	3.67E-03	4.23E-08	6.01E-07	0.00E+00	0.64	0.00	0
564307.1	4182339.82	3.63E-03	1.02E-05	1.02E-05	3.65E-03	4.21E-08	5.97E-07	0.00E+00	0.64	0.00	0
564327.1	4182339.82	3.60E-03	1.01E-05	1.01E-05	3.62E-03	4.18E-08	5.93E-07	0.00E+00	0.63	0.00	0
564347.1	4182339.82	3.59E-03	1.01E-05	1.01E-05	3.61E-03	4.16E-08	5.91E-07	0.00E+00	0.63	0.00	0
564367.1	4182339.82	3.58E-03	1.01E-05	1.01E-05	3.60E-03	4.16E-08	5.90E-07	0.00E+00	0.63	0.00	0
564387.1	4182339.82	3.58E-03	1.01E-05	1.01E-05	3.60E-03	4.15E-08	5.90E-07	0.00E+00	0.63	0.00	0
564407.1	4182339.82	3.57E-03	1.01E-05	1.01E-05	3.59E-03	4.14E-08	5.88E-07	0.00E+00	0.63	0.00	0
564427.1	4182339.82	3.55E-03	1.00E-05	1.00E-05	3.57E-03	4.11E-08	5.84E-07	0.00E+00	0.63	0.00	0
564447.1	4182339.82	3.51E-03	9.89E-06	9.89E-06	3.53E-03	4.07E-08	5.78E-07	0.00E+00	0.62	0.00	0
564467.1	4182339.82	3.46E-03	9.74E-06	9.74E-06	3.48E-03	4.01E-08	5.69E-07	0.00E+00	0.61	0.00	0
564487.1	4182339.82	3.40E-03	9.58E-06	9.58E-06	3.42E-03	3.94E-08	5.60E-07	0.00E+00	0.60	0.00	0
564507.1	4182339.82	3.34E-03	9.41E-06	9.41E-06	3.36E-03	3.87E-08	5.50E-07	0.00E+00	0.59	0.00	0
564527.1	4182339.82	3.28E-03	9.24E-06	9.24E-06	3.30E-03	3.80E-08	5.40E-07	0.00E+00	0.58	0.00	0
564547.1	4182339.82	3.22E-03	9.08E-06	9.08E-06	3.24E-03	3.74E-08	5.31E-07	0.00E+00	0.57	0.00	0
564567.1	4182339.82	3.17E-03	8.92E-06	8.92E-06	3.18E-03	3.67E-08	5.21E-07	0.00E+00	0.56	0.00	0
564587.1	4182339.82	3.11E-03	8.77E-06	8.77E-06	3.13E-03	3.61E-08	5.12E-07	0.00E+00	0.55	0.00	0
564607.1	4182339.82	3.05E-03	8.60E-06	8.60E-06	3.07E-03	3.54E-08	5.03E-07	0.00E+00	0.54	0.00	0
564627.1	4182339.82	3.00E-03	8.44E-06	8.44E-06	3.01E-03	3.47E-08	4.93E-07	0.00E+00	0.53	0.00	0
564647.1	4182339.82	2.94E-03	8.28E-06	8.28E-06	2.96E-03	3.41E-08	4.84E-07	0.00E+00	0.52	0.00	0
564667.1	4182339.82	2.89E-03	8.14E-06	8.14E-06	2.90E-03	3.35E-08	4.75E-07	0.00E+00	0.51	0.00	0
564687.1	4182339.82	2.85E-03	8.02E-06	8.02E-06	2.86E-03	3.30E-08	4.68E-07	0.00E+00	0.50	0.00	0
564707.1	4182339.82	2.82E-03	7.94E-06	7.94E-06	2.83E-03	3.27E-08	4.64E-07	0.00E+00	0.50	0.00	0
564727.1	4182339.82	2.80E-03	7.90E-06	7.90E-06	2.82E-03	3.25E-08	4.62E-07	0.00E+00	0.49	0.00	0
564747.1	4182339.82	2.81E-03	7.91E-06	7.91E-06	2.82E-03	3.25E-08	4.62E-07	0.00E+00	0.49	0.00	0
564767.1	4182339.82	2.82E-03	7.95E-06	7.95E-06	2.84E-03	3.27E-08	4.65E-07	0.00E+00	0.50	0.00	0
564787.1	4182339.82	2.85E-03	8.03E-06	8.03E-06	2.86E-03	3.30E-08	4.69E-07	0.00E+00	0.50	0.00	0
564807.1	4182339.82	2.88E-03	8.13E-06	8.13E-06	2.90E-03	3.34E-08	4.75E-07	0.00E+00	0.51	0.00	0
564827.1	4182339.82	2.93E-03	8.25E-06	8.25E-06	2.94E-03	3.39E-08	4.82E-07	0.00E+00	0.52	0.00	0
564847.1	4182339.82	2.98E-03	8.39E-06	8.39E-06	2.99E-03	3.45E-08	4.90E-07	0.00E+00	0.52	0.00	0
564867.1	4182339.82	3.03E-03	8.55E-06	8.55E-06	3.05E-03	3.52E-08	4.99E-07	0.00E+00	0.53	0.00	0
564887.1	4182339.82	3.09E-03	8.72E-06	8.72E-06	3.11E-03	3.59E-08	5.09E-07	0.00E+00	0.55	0.00	0
564907.1	4182339.82	3.15E-03	8.89E-06	8.89E-06	3.17E-03	3.66E-08	5.19E-07	0.00E+00	0.56	0.00	0
564927.1	4182339.82	3.22E-03	9.07E-06	9.07E-06	3.24E-03	3.73E-08	5.30E-07	0.00E+00	0.57	0.00	0
564947.1	4182339.82	3.28E-03	9.24E-06	9.24E-06	3.30E-03	3.80E-08	5.40E-07	0.00E+00	0.58	0.00	0
564967.1	4182339.82	3.34E-03	9.41E-06	9.41E-06	3.36E-03	3.87E-08	5.50E-07	0.00E+00	0.59	0.00	0
564987.1	4182339.82	3.39E-03	9.56E-06	9.56E-06	3.41E-03	3.93E-08	5.59E-07	0.00E+00	0.60	0.00	0
565007.1	4182339.82	3.44E-03	9.70E-06	9.70E-06	3.46E-03	3.99E-08	5.67E-07	0.00E+00	0.61	0.00	0
565027.1	4182339.82	3.49E-03	9.82E-06	9.82E-06	3.51E-03	4.04E-08	5.74E-07	0.00E+00	0.61	0.00	0
564047.1	4182359.82	3.99E-03	1.13E-05	1.13E-05	4.02E-03	4.63E-08	6.58E-07	0.00E+00	0.70	0.00	0
564067.1	4182359.82	4.10E-03	1.15E-05	1.15E-05	4.12E-03	4.75E-08	6.75E-07	0.00E+00	0.72	0.00	0
564087.1	4182359.82	4.19E-03	1.18E-05	1.18E-05	4.21E-03	4.86E-08	6.90E-07	0.00E+00	0.74	0.00	0
564107.1	4182359.82	4.27E-03	1.20E-05	1.20E-05	4.29E-03	4.95E-08	7.03E-07	0.00E+00	0.75	0.00	0
564127.1	4182359.82	4.33E-03	1.22E-05	1.22E-05	4.36E-03	5.02E-08	7.14E-07	0.00E+00	0.76	0.00	0
564147.1	4182359.82	4.37E-03	1.23E-05	1.23E-05	4.40E-03	5.07E-08	7.20E-07	0.00E+00	0.77	0.00	0
564167.1	4182359.82	4.37E-03	1.23E-05	1.23E-05	4.40E-03	5.07E-08	7.20E-07	0.00E+00	0.77	0.00	0
564187.1	4182359.82	4.34E-03	1.22E-05	1.22E-05	4.37E-03	5.03E-08	7.15E-07	0.00E+00	0.77	0.00	0
564207.1	4182359.82	4.30E-03	1.21E-05	1.21E-05	4.32E-03	4.98E-08	7.07E-07	0.00E+00	0.76	0.00	0
564227.1	4182359.82	4.24E-03	1.20E-05	1.20E-05	4.27E-03	4.92E-08	6.99E-07	0.00E+00	0.75	0.00	0
564247.1	4182359.82	4.18E-03	1.18E-05	1.18E-05	4.20E-03	4.84E-08	6.88E-07	0.00E+00	0.74	0.00	0
564267.1	4182359.82	4.09E-03	1.15E-05	1.15E-05	4.11E-03	4.74E-08	6.74E-07	0.00E+00	0.72	0.00	0
564287.1	4182359.82	4.02E-03	1.13E-05	1.13E-05	4.04E-03	4.66E-08	6.61E-07	0.00E+00	0.71	0.00	0
564307.1	4182359.82	3.96E-03	1.12E-05	1.12E-05	3.98E-03	4.59E-08	6.51E-07	0.00E+00	0.70	0.00	0
564327.1	4182359.82	3.92E-03	1.10E-05	1.10E-05	3.94E-03	4.54E-08	6.45E-07	0.00E+00	0.69	0.00	0
564347.1	4182359.82	3.89E-03	1.10E-05	1.10E-05	3.91E-03	4.51E-08	6.40E-07	0.00E+00	0.69	0.00	0
564367.1	4182359.82	3.87E-03	1.09E-05	1.09E-05	3.90E-03	4.49E-08	6.38E-07	0.00E+00	0.68	0.00	0
564387.1	4182359.82	3.86E-03	1.09E-05	1.09E-05	3.89E-03	4.48E-08	6.36E-07	0.00E+00	0.68	0.00	0
564407.1	4182359.82	3.85E-03	1.09E-05	1.09E-05	3.87E-03	4.46E-08	6.34E-07	0.00E+00	0.68	0.00	0
564427.1	4182359.82	3.83E-03	1.08E-05	1.08E-05	3.85E-03	4.44E-08	6.30E-07	0.00E+00	0.67	0.00	0

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

		Construction Emissions			
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total
564447.1	4182359.82	3.79E-03	1.07E-05	1.07E-05	3.81E-03
564467.1	4182359.82	3.73E-03	1.05E-05	1.05E-05	3.75E-03
564487.1	4182359.82	3.67E-03	1.03E-05	1.03E-05	3.69E-03
564507.1	4182359.82	3.61E-03	1.02E-05	1.02E-05	3.63E-03
564527.1	4182359.82	3.54E-03	9.98E-06	9.98E-06	3.56E-03
564547.1	4182359.82	3.48E-03	9.80E-06	9.80E-06	3.50E-03
564567.1	4182359.82	3.42E-03	9.63E-06	9.63E-06	3.44E-03
564587.1	4182359.82	3.36E-03	9.45E-06	9.45E-06	3.37E-03
564607.1	4182359.82	3.29E-03	9.28E-06	9.28E-06	3.31E-03
564627.1	4182359.82	3.23E-03	9.11E-06	9.11E-06	3.25E-03
564647.1	4182359.82	3.17E-03	8.94E-06	8.94E-06	3.19E-03
564667.1	4182359.82	3.12E-03	8.80E-06	8.80E-06	3.14E-03
564687.1	4182359.82	3.09E-03	8.70E-06	8.70E-06	3.10E-03
564707.1	4182359.82	3.07E-03	8.64E-06	8.64E-06	3.08E-03
564727.1	4182359.82	3.06E-03	8.63E-06	8.63E-06	3.08E-03
564747.1	4182359.82	3.08E-03	8.67E-06	8.67E-06	3.10E-03
564767.1	4182359.82	3.11E-03	8.75E-06	8.75E-06	3.12E-03
564787.1	4182359.82	3.15E-03	8.87E-06	8.87E-06	3.17E-03
564807.1	4182359.82	3.20E-03	9.01E-06	9.01E-06	3.22E-03
564827.1	4182359.82	3.26E-03	9.18E-06	9.18E-06	3.28E-03
564847.1	4182359.82	3.32E-03	9.36E-06	9.36E-06	3.34E-03
564867.1	4182359.82	3.39E-03	9.55E-06	9.55E-06	3.41E-03
564887.1	4182359.82	3.46E-03	9.75E-06	9.75E-06	3.48E-03
564907.1	4182359.82	3.53E-03	9.95E-06	9.95E-06	3.55E-03
564927.1	4182359.82	3.60E-03	1.02E-05	1.02E-05	3.62E-03
564947.1	4182359.82	3.67E-03	1.03E-05	1.03E-05	3.69E-03
564967.1	4182359.82	3.73E-03	1.05E-05	1.05E-05	3.75E-03
564987.1	4182359.82	3.79E-03	1.07E-05	1.07E-05	3.81E-03
565007.1	4182359.82	3.84E-03	1.08E-05	1.08E-05	3.86E-03
565027.1	4182359.82	3.88E-03	1.09E-05	1.09E-05	3.90E-03
564047.1	4182379.82	4.16E-03	1.17E-05	1.17E-05	4.19E-03
564067.1	4182379.82	4.29E-03	1.21E-05	1.21E-05	4.31E-03
564087.1	4182379.82	4.41E-03	1.24E-05	1.24E-05	4.43E-03
564107.1	4182379.82	4.51E-03	1.27E-05	1.27E-05	4.54E-03
564127.1	4182379.82	4.60E-03	1.30E-05	1.30E-05	4.63E-03
564147.1	4182379.82	4.68E-03	1.32E-05	1.32E-05	4.71E-03
564167.1	4182379.82	4.74E-03	1.33E-05	1.33E-05	4.76E-03
564187.1	4182379.82	4.70E-03	1.33E-05	1.33E-05	4.73E-03
564207.1	4182379.82	4.67E-03	1.32E-05	1.32E-05	4.70E-03
564227.1	4182379.82	4.64E-03	1.31E-05	1.31E-05	4.66E-03
564247.1	4182379.82	4.58E-03	1.29E-05	1.29E-05	4.61E-03
564267.1	4182379.82	4.50E-03	1.27E-05	1.27E-05	4.52E-03
564287.1	4182379.82	4.41E-03	1.24E-05	1.24E-05	4.44E-03
564307.1	4182379.82	4.34E-03	1.22E-05	1.22E-05	4.36E-03
564327.1	4182379.82	4.28E-03	1.21E-05	1.21E-05	4.31E-03
564347.1	4182379.82	4.24E-03	1.19E-05	1.19E-05	4.26E-03
564367.1	4182379.82	4.21E-03	1.19E-05	1.19E-05	4.24E-03
564387.1	4182379.82	4.19E-03	1.18E-05	1.18E-05	4.21E-03
564407.1	4182379.82	4.17E-03	1.18E-05	1.18E-05	4.19E-03
564427.1	4182379.82	4.14E-03	1.17E-05	1.17E-05	4.17E-03
564447.1	4182379.82	4.10E-03	1.16E-05	1.16E-05	4.13E-03
564467.1	4182379.82	4.05E-03	1.14E-05	1.14E-05	4.07E-03
564487.1	4182379.82	3.98E-03	1.12E-05	1.12E-05	4.00E-03
564507.1	4182379.82	3.91E-03	1.10E-05	1.10E-05	3.93E-03
564527.1	4182379.82	3.84E-03	1.08E-05	1.08E-05	3.86E-03
564547.1	4182379.82	3.77E-03	1.06E-05	1.06E-05	3.79E-03
564567.1	4182379.82	3.70E-03	1.04E-05	1.04E-05	3.72E-03
564587.1	4182379.82	3.63E-03	1.02E-05	1.02E-05	3.66E-03
564607.1	4182379.82	3.57E-03	1.01E-05	1.01E-05	3.59E-03
564627.1	4182379.82	3.50E-03	9.87E-06	9.87E-06	3.52E-03
564647.1	4182379.82	3.44E-03	9.71E-06	9.71E-06	3.46E-03
564667.1	4182379.82	3.40E-03	9.58E-06	9.58E-06	3.42E-03
564687.1	4182379.82	3.37E-03	9.50E-06	9.50E-06	3.39E-03
564707.1	4182379.82	3.36E-03	9.47E-06	9.47E-06	3.38E-03
564727.1	4182379.82	3.37E-03	9.51E-06	9.51E-06	3.39E-03
564747.1	4182379.82	3.40E-03	9.59E-06	9.59E-06	3.42E-03
564767.1	4182379.82	3.45E-03	9.73E-06	9.73E-06	3.47E-03
564787.1	4182379.82	3.51E-03	9.89E-06	9.89E-06	3.53E-03
564807.1	4182379.82	3.58E-03	1.01E-05	1.01E-05	3.60E-03
564827.1	4182379.82	3.65E-03	1.03E-05	1.03E-05	3.68E-03
564847.1	4182379.82	3.73E-03	1.05E-05	1.05E-05	3.76E-03
564867.1	4182379.82	3.82E-03	1.08E-05	1.08E-05	3.84E-03
564887.1	4182379.82	3.90E-03	1.10E-05	1.10E-05	3.92E-03
564907.1	4182379.82	3.98E-03	1.12E-05	1.12E-05	4.00E-03
564927.1	4182379.82	4.06E-03	1.14E-05	1.14E-05	4.08E-03
564947.1	4182379.82	4.13E-03	1.16E-05	1.16E-05	4.15E-03
564967.1	4182379.82	4.19E-03	1.18E-05	1.18E-05	4.21E-03
564987.1	4182379.82	4.24E-03	1.20E-05	1.20E-05	4.27E-03
565007.1	4182379.82	4.28E-03	1.21E-05	1.21E-05	4.31E-03
565027.1	4182379.82	4.31E-03	1.22E-05	1.22E-05	4.34E-03
564047.1	4182399.82	4.32E-03	1.22E-05	1.22E-05	4.35E-03
564067.1	4182399.82	4.48E-03	1.26E-05	1.26E-05	4.50E-03
564087.1	4182399.82	4.62E-03	1.30E-05	1.30E-05	4.64E-03
564107.1	4182399.82	4.75E-03	1.34E-05	1.34E-05	4.78E-03
564127.1	4182399.82	4.89E-03	1.38E-05	1.38E-05	4.92E-03
564147.1	4182399.82	5.01E-03	1.41E-05	1.41E-05	5.04E-03
564167.1	4182399.82	5.09E-03	1.43E-05	1.43E-05	5.12E-03
564187.1	4182399.82	5.11E-03	1.44E-05	1.44E-05	5.13E-03
564207.1	4182399.82	5.08E-03	1.43E-05	1.43E-05	5.11E-03
564227.1	4182399.82	5.08E-03	1.43E-05	1.43E-05	5.11E-03
564247.1	4182399.82	5.04E-03	1.42E-05	1.42E-05	5.07E-03
564267.1	4182399.82	4.95E-03	1.40E-05	1.40E-05	4.98E-03
564287.1	4182399.82	4.86E-03	1.37E-05	1.37E-05	4.89E-03
564307.1	4182399.82	4.78E-03	1.35E-05	1.35E-05	4.81E-03
564327.1	4182399.82	4.71E-03	1.33E-05	1.33E-05	4.74E-03
564347.1	4182399.82	4.65E-03	1.31E-05	1.31E-05	4.68E-03
564367.1	4182399.82	4.61E-03	1.30E-05	1.30E-05	4.63E-03
564387.1	4182399.82	4.57E-03	1.29E-05	1.29E-05	4.60E-03
564407.1	4182399.82	4.54E-03	1.28E-05	1.28E-05	4.57E-03
564427.1	4182399.82	4.51E-03	1.27E-05	1.27E-05	4.53E-03
564447.1	4182399.82	4.47E-03	1.26E-05	1.26E-05	4.49E-03
564467.1	4182399.82	4.41E-03	1.24E-05	1.24E-05	4.43E-03
564487.1	4182399.82	4.34E-03	1.22E-05	1.22E-05	4.36E-03
564507.1	4182399.82	4.26E-03	1.20E-05	1.20E-05	4.29E-03
564527.1	4182399.82	4.18E-03	1.18E-05	1.18E-05	4.21E-03
564547.1	4182399.82	4.11E-03	1.16E-05	1.16E-05	4.13E-03
564567.1	4182399.82	4.03E-03	1.14E-05	1.14E-05	4.05E-03
564587.1	4182399.82	3.96E-03	1.11E-05	1.11E-05	3.98E-03
564607.1	4182399.82	3.88E-03	1.09E-05	1.09E-05	3.91E-03
564627.1	4182399.82	3.82E-03	1.08E-05	1.08E-05	3.84E-03
564647.1	4182399.82	3.76E-03	1.06E-05	1.06E-05	3.79E-03
564667.1	4182399.82	3.73E-03	1.05E-05	1.05E-05	3.75E-03
564687.1	4182399.82	3.71E-03	1.05E-05	1.05E-05	3.73E-03

Risk Calculation Part 2, $\sum R1*C_{DPM}$ 12

				HI
3rd Trimester	0<2	2<16	Total	C_{DPM}/REL
4.39E-08	6.23E-07	0.00E+00	0.67	0.00 0
4.33E-08	6.15E-07	0.00E+00	0.66	0.00 0
4.26E-08	6.04E-07	0.00E+00	0.65	0.00 0
4.18E-08	5.94E-07	0.00E+00	0.64	0.00 0
4.11E-08	5.83E-07	0.00E+00	0.62	0.00 0
4.03E-08	5.73E-07	0.00E+00	0.61	0.00 0
3.96E-08	5.63E-07	0.00E+00	0.60	0.00 0
3.89E-08	5.52E-07	0.00E+00	0.59	0.00 0
3.82E-08	5.42E-07	0.00E+00	0.58	0.00 0
3.75E-08	5.32E-07	0.00E+00	0.57	0.00 0
3.68E-08	5.22E-07	0.00E+00	0.56	0.00 0
3.62E-08	5.14E-07	0.00E+00	0.55	0.00 0
3.58E-08	5.08E-07	0.00E+00	0.54	0.00 0
3.55E-08	5.05E-07	0.00E+00	0.54	0.00 0
3.55E-08	5.04E-07	0.00E+00	0.54	0.00 0
3.57E-08	5.07E-07	0.00E+00	0.54	0.00 0
3.60E-08	5.11E-07	0.00E+00	0.55	0.00 0
3.65E-08	5.18E-07	0.00E+00	0.55	0.00 0
3.71E-08	5.27E-07	0.00E+00	0.56	0.00 0
3.78E-08	5.36E-07	0.00E+00	0.57	0.00 0
3.85E-08	5.47E-07	0.00E+00	0.59	0.00 0
3.93E-08	5.58E-07	0.00E+00	0.60	0.00 0
4.01E-08	5.70E-07	0.00E+00	0.61	0.00 0
4.10E-08	5.82E-07	0.00E+00	0.62	0.00 0
4.18E-08	5.93E-07	0.00E+00	0.63	0.00 0
4.26E-08	6.04E-07	0.00E+00	0.65	0.00 0
4.33E-08	6.15E-07	0.00E+00	0.66	0.00 0
4.39E-08	6.24E-07	0.00E+00	0.67	0.00 0
4.45E-08	6.32E-07	0.00E+00	0.68	0.00 0
4.49E-08	6.38E-07	0.00E+00	0.68	0.00 0
4.82E-08	6.85E-07	0.00E+00	0.73	0.00 0
4.97E-08	7.06E-07	0.00E+00	0.76	0.00 0
5.11E-08	7.25E-07	0.00E+00	0.78	0.00 0
5.23E-08	7.43E-07	0.00E+00	0.79	0.00 0
5.34E-08	7.58E-07	0.00E+00	0.81	0.00 0
5.43E-08	7.71E-07	0.00E+00	0.82	0.00 0
5.49E-08	7.80E-07	0.00E+00	0.83	0.00 0
5.45E-08	7.74E-07	0.00E+00	0.83	0.00 0
5.41E-08	7.69E-07	0.00E+00	0.82	0.00 0
5.37E-08	7.63E-07	0.00E+00	0.82	0.00 0
5.31E-08	7.54E-07	0.00E+00	0.81	0.00 0
5.21E-08	7.40E-07	0.00E+00	0.79	0.00 0
5.11E-08	7.26E-07	0.00E+00	0.78	0.00 0
5.03E-08	7.14E-07	0.00E+00	0.76	0.00 0
4.96E-08	7.05E-07	0.00E+00	0.75	0.00 0
4.92E-08	6.98E-07	0.00E+00	0.75	0.00 0
4.88E-08	6.93E-07	0.00E+00	0.74	0.00 0
4.86E-08	6.90E-07	0.00E+00	0.74	0.00 0
4.83E-08	6.87E-07	0.00E+00	0.73	0.00 0
4.80E-08	6.82E-07	0.00E+00	0.73	0.00 0
4.76E-08	6.75E-07	0.00E+00	0.72	0.00 0
4.69E-08	6.66E-07	0.00E+00	0.71	0.00 0
4.62E-08	6.56E-07	0.00E+00	0.70	0.00 0
4.53E-08	6.44E-07	0.00E+00	0.69	0.00 0
4.45E-08	6.32E-07	0.00E+00	0.68	0.00 0
4.37E-08	6.21E-07	0.00E+00	0.66	0.00 0
4.29E-08	6.10E-07	0.00E+00	0.65	0.00 0
4.21E-08	5.98E-07	0.00E+00	0.64	0.00 0
4.14E-08	5.87E-07	0.00E+00	0.63	0.00 0
4.06E-08	5.77E-07	0.00E+00	0.62	0.00 0
3.99E-08	5.67E-07	0.00E+00	0.61	0.00 0
3.94E-08	5.60E-07	0.00E+00	0.60	0.00 0
3.91E-08	5.55E-07	0.00E+00	0.59	0.00 0
3.90E-08	5.53E-07	0.00E+00	0.59	0.00 0
3.91E-08	5.55E-07	0.00E+00	0.59	0.00 0
3.95E-08	5.61E-07	0.00E+00	0.60	0.00 0
4.00E-08	5.68E-07	0.00E+00	0.61	0.00 0
4.07E-08	5.78E-07	0.00E+00	0.62	0.00 0
4.15E-08	5.89E-07	0.00E+00	0.63	0.00 0
4.24E-08	6.02E-07	0.00E+00	0.64	0.00 0
4.33E-08	6.15E-07	0.00E+00	0.66	0.00 0
4.42E-08	6.28E-07	0.00E+00	0.67	0.00 0
4.52E-08	6.42E-07	0.00E+00	0.69	0.00 0
4.61E-08	6.55E-07	0.00E+00	0.70	0.00 0
4.70E-08	6.68E-07	0.00E+00	0.71	0.00 0
4.79E-08	6.80E-07	0.00E+00	0.73	0.00 0
4.86E-08	6.90E-07	0.00E+00	0.74	0.00 0
4.92E-08	6.98E-07	0.00E+00	0.75	0.00 0
4.97E-08	7.05E-07	0.00E+00	0.75	0.00 0
5.00E-08	7.10E-07	0.00E+00	0.76	0.00 0
5.01E-08	7.12E-07	0.00E+00	0.76	0.00 0
5.19E-08	7.37E-07	0.00E+00	0.79	0.00 0
5.35E-08	7.60E-07	0.00E+00	0.81	0.00 0
5.51E-08	7.82E-07	0.00E+00	0.84	0.00 0
5.67E-08	8.06E-07	0.00E+00	0.86	0.00 0
5.81E-08	8.25E-07	0.00E+00	0.88	0.00 0
5.90E-08	8.38E-07	0.00E+00	0.90	0.00 0
5.92E-08	8.40E-07	0.00E+00	0.90	0.00 0
5.89E-08	8.37E-07	0.00E+00	0.90	0.00 0
5.89E-08	8.37E-07	0.00E+00	0.90	0.00 0
5.84E-08	8.29E-07	0.00E+00	0.89	0.00 0
5.74E-08	8.16E-07	0.00E+00	0.87	0.00 0
5.64E-08	8.01E-07	0.00E+00	0.86	0.00 0
5.54E-08	7.87E-07	0.00E+00	0.84	0.00 0
5.46E-08	7.76E-07	0.00E+00	0.83	0.00 0
5.40E-08	7.66E-07	0.00E+00	0.82	0.00 0
5.34E-08	7.59E-07	0.00E+00	0.81	0.00 0
5.30E-08	7.53E-07	0.00E+00	0.81	0.00 0
5.27E-08	7.48E-07	0.00E+00	0.80	0.00 0
5.23E-08	7.42E-07	0.00E+00	0.79	0.00 0
5.18E-08	7.35E-07	0.00E+00	0.79	0.00 0
5.11E-08	7.26E-07	0.00E+00	0.78	0.00 0
5.03E-08	7.14E-07	0.00E+00	0.76	0.00 0
4.94E-08	7.02E-07	0.00E+00	0.75	0.00 0
4.85E-08	6.89E-07	0.00E+00	0.74	0.00 0
4.76E-08	6.76E-07	0.00E+00	0.72	0.00 0
4.67E-08	6.63E-07	0.00E+00	0.71	0.00 0
4.59E-08	6.51E-07	0.00E+00	0.70	0.00 0
4.50E-08	6.40E-07	0.00E+00	0.68	0.00 0
4.43E-08	6.29E-07	0.00E+00	0.67	0.00 0
4.36E-08	6.20E-07	0.00E+00	0.66	0.00 0
4.32E-08	6.13E-07	0.00E+00	0.66	0.00 0
4.30E-08	6.11E-07	0.00E+00	0.65	0.00 0

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

		Construction Emissions			
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total
564707.1	4182399.82	3.72E-03	1.05E-05	1.05E-05	3.74E-03
564727.1	4182399.82	3.75E-03	1.06E-05	1.06E-05	3.77E-03
564747.1	4182399.82	3.80E-03	1.07E-05	1.07E-05	3.83E-03
564767.1	4182399.82	3.87E-03	1.09E-05	1.09E-05	3.90E-03
564787.1	4182399.82	3.95E-03	1.11E-05	1.11E-05	3.98E-03
564807.1	4182399.82	4.04E-03	1.14E-05	1.14E-05	4.07E-03
564827.1	4182399.82	4.14E-03	1.17E-05	1.17E-05	4.16E-03
564847.1	4182399.82	4.23E-03	1.19E-05	1.19E-05	4.26E-03
564867.1	4182399.82	4.33E-03	1.22E-05	1.22E-05	4.35E-03
564887.1	4182399.82	4.42E-03	1.25E-05	1.25E-05	4.45E-03
564907.1	4182399.82	4.51E-03	1.27E-05	1.27E-05	4.54E-03
564927.1	4182399.82	4.59E-03	1.29E-05	1.29E-05	4.61E-03
564947.1	4182399.82	4.66E-03	1.31E-05	1.31E-05	4.68E-03
564967.1	4182399.82	4.71E-03	1.33E-05	1.33E-05	4.74E-03
564987.1	4182399.82	4.76E-03	1.34E-05	1.34E-05	4.78E-03
565007.1	4182399.82	4.79E-03	1.35E-05	1.35E-05	4.81E-03
565027.1	4182399.82	4.80E-03	1.35E-05	1.35E-05	4.83E-03
564047.1	4182419.82	4.48E-03	1.26E-05	1.26E-05	4.51E-03
564067.1	4182419.82	4.66E-03	1.31E-05	1.31E-05	4.68E-03
564087.1	4182419.82	4.83E-03	1.36E-05	1.36E-05	4.86E-03
564107.1	4182419.82	5.00E-03	1.41E-05	1.41E-05	5.03E-03
564127.1	4182419.82	5.19E-03	1.46E-05	1.46E-05	5.22E-03
564147.1	4182419.82	5.33E-03	1.50E-05	1.50E-05	5.36E-03
564167.1	4182419.82	5.45E-03	1.54E-05	1.54E-05	5.48E-03
564187.1	4182419.82	5.53E-03	1.56E-05	1.56E-05	5.56E-03
564207.1	4182419.82	5.57E-03	1.57E-05	1.57E-05	5.61E-03
564227.1	4182419.82	5.58E-03	1.57E-05	1.57E-05	5.61E-03
564247.1	4182419.82	5.54E-03	1.56E-05	1.56E-05	5.57E-03
564267.1	4182419.82	5.47E-03	1.54E-05	1.54E-05	5.50E-03
564287.1	4182419.82	5.38E-03	1.52E-05	1.52E-05	5.42E-03
564307.1	4182419.82	5.30E-03	1.49E-05	1.49E-05	5.33E-03
564327.1	4182419.82	5.21E-03	1.47E-05	1.47E-05	5.24E-03
564347.1	4182419.82	5.14E-03	1.45E-05	1.45E-05	5.17E-03
564367.1	4182419.82	5.08E-03	1.43E-05	1.43E-05	5.11E-03
564387.1	4182419.82	5.03E-03	1.42E-05	1.42E-05	5.05E-03
564407.1	4182419.82	4.98E-03	1.40E-05	1.40E-05	5.01E-03
564427.1	4182419.82	4.94E-03	1.39E-05	1.39E-05	4.96E-03
564447.1	4182419.82	4.89E-03	1.38E-05	1.38E-05	4.91E-03
564467.1	4182419.82	4.83E-03	1.36E-05	1.36E-05	4.85E-03
564487.1	4182419.82	4.75E-03	1.34E-05	1.34E-05	4.78E-03
564507.1	4182419.82	4.67E-03	1.31E-05	1.31E-05	4.69E-03
564527.1	4182419.82	4.58E-03	1.29E-05	1.29E-05	4.60E-03
564547.1	4182419.82	4.49E-03	1.27E-05	1.27E-05	4.52E-03
564567.1	4182419.82	4.41E-03	1.24E-05	1.24E-05	4.43E-03
564587.1	4182419.82	4.33E-03	1.22E-05	1.22E-05	4.35E-03
564607.1	4182419.82	4.26E-03	1.20E-05	1.20E-05	4.28E-03
564627.1	4182419.82	4.19E-03	1.18E-05	1.18E-05	4.22E-03
564647.1	4182419.82	4.15E-03	1.17E-05	1.17E-05	4.17E-03
564667.1	4182419.82	4.12E-03	1.16E-05	1.16E-05	4.14E-03
564687.1	4182419.82	4.12E-03	1.16E-05	1.16E-05	4.15E-03
564707.1	4182419.82	4.16E-03	1.17E-05	1.17E-05	4.18E-03
564727.1	4182419.82	4.22E-03	1.19E-05	1.19E-05	4.24E-03
564747.1	4182419.82	4.30E-03	1.21E-05	1.21E-05	4.32E-03
564767.1	4182419.82	4.39E-03	1.24E-05	1.24E-05	4.42E-03
564787.1	4182419.82	4.50E-03	1.27E-05	1.27E-05	4.53E-03
564807.1	4182419.82	4.61E-03	1.30E-05	1.30E-05	4.64E-03
564827.1	4182419.82	4.73E-03	1.33E-05	1.33E-05	4.75E-03
564847.1	4182419.82	4.84E-03	1.36E-05	1.36E-05	4.87E-03
564867.1	4182419.82	4.95E-03	1.39E-05	1.39E-05	4.97E-03
564887.1	4182419.82	5.04E-03	1.42E-05	1.42E-05	5.07E-03
564907.1	4182419.82	5.13E-03	1.45E-05	1.45E-05	5.16E-03
564927.1	4182419.82	5.21E-03	1.47E-05	1.47E-05	5.24E-03
564947.1	4182419.82	5.27E-03	1.48E-05	1.48E-05	5.30E-03
564967.1	4182419.82	5.31E-03	1.50E-05	1.50E-05	5.34E-03
564987.1	4182419.82	5.34E-03	1.50E-05	1.50E-05	5.37E-03
565007.1	4182419.82	5.35E-03	1.51E-05	1.51E-05	5.38E-03
565027.1	4182419.82	5.34E-03	1.50E-05	1.50E-05	5.37E-03
564047.1	4182439.82	4.63E-03	1.30E-05	1.30E-05	4.65E-03
564067.1	4182439.82	4.83E-03	1.36E-05	1.36E-05	4.85E-03
564087.1	4182439.82	5.03E-03	1.42E-05	1.42E-05	5.06E-03
564107.1	4182439.82	5.24E-03	1.48E-05	1.48E-05	5.27E-03
564127.1	4182439.82	5.44E-03	1.53E-05	1.53E-05	5.47E-03
564147.1	4182439.82	5.65E-03	1.59E-05	1.59E-05	5.68E-03
564167.1	4182439.82	5.81E-03	1.64E-05	1.64E-05	5.85E-03
564187.1	4182439.82	5.95E-03	1.68E-05	1.68E-05	5.98E-03
564207.1	4182439.82	6.04E-03	1.70E-05	1.70E-05	6.08E-03
564227.1	4182439.82	6.09E-03	1.72E-05	1.72E-05	6.13E-03
564247.1	4182439.82	6.09E-03	1.72E-05	1.72E-05	6.13E-03
564267.1	4182439.82	6.05E-03	1.71E-05	1.71E-05	6.08E-03
564287.1	4182439.82	5.98E-03	1.68E-05	1.68E-05	6.01E-03
564307.1	4182439.82	5.89E-03	1.66E-05	1.66E-05	5.92E-03
564327.1	4182439.82	5.80E-03	1.64E-05	1.64E-05	5.84E-03
564347.1	4182439.82	5.72E-03	1.61E-05	1.61E-05	5.75E-03
564367.1	4182439.82	5.64E-03	1.59E-05	1.59E-05	5.67E-03
564387.1	4182439.82	5.57E-03	1.57E-05	1.57E-05	5.60E-03
564407.1	4182439.82	5.50E-03	1.55E-05	1.55E-05	5.53E-03
564427.1	4182439.82	5.44E-03	1.53E-05	1.53E-05	5.47E-03
564447.1	4182439.82	5.38E-03	1.52E-05	1.52E-05	5.41E-03
564467.1	4182439.82	5.31E-03	1.50E-05	1.50E-05	5.34E-03
564487.1	4182439.82	5.23E-03	1.47E-05	1.47E-05	5.26E-03
564507.1	4182439.82	5.14E-03	1.45E-05	1.45E-05	5.17E-03
564527.1	4182439.82	5.04E-03	1.42E-05	1.42E-05	5.07E-03
564547.1	4182439.82	4.94E-03	1.39E-05	1.39E-05	4.97E-03
564567.1	4182439.82	4.85E-03	1.37E-05	1.37E-05	4.88E-03
564587.1	4182439.82	4.77E-03	1.34E-05	1.34E-05	4.80E-03
564607.1	4182439.82	4.70E-03	1.32E-05	1.32E-05	4.73E-03
564627.1	4182439.82	4.64E-03	1.31E-05	1.31E-05	4.67E-03
564647.1	4182439.82	4.61E-03	1.30E-05	1.30E-05	4.63E-03
564667.1	4182439.82	4.60E-03	1.30E-05	1.30E-05	4.63E-03
564687.1	4182439.82	4.64E-03	1.31E-05	1.31E-05	4.66E-03
564707.1	4182439.82	4.70E-03	1.32E-05	1.32E-05	4.73E-03
564727.1	4182439.82	4.80E-03	1.35E-05	1.35E-05	4.82E-03
564747.1	4182439.82	4.91E-03	1.38E-05	1.38E-05	4.94E-03
564767.1	4182439.82	5.05E-03	1.42E-05	1.42E-05	5.07E-03
564787.1	4182439.82	5.18E-03	1.46E-05	1.46E-05	5.21E-03
564807.1	4182439.82	5.32E-03	1.50E-05	1.50E-05	5.35E-03
564827.1	4182439.82	5.45E-03	1.54E-05	1.54E-05	5.48E-03
564847.1	4182439.82	5.57E-03	1.57E-05	1.57E-05	5.60E-03
564867.1	4182439.82	5.68E-03	1.60E-05	1.60E-05	5.71E-03
564887.1	4182439.82	5.78E-03	1.63E-05	1.63E-05	5.81E-03
564907.1	4182439.82	5.86E-03	1.65E-05	1.65E-05	5.89E-03
564927.1	4182439.82	5.92E-03	1.67E-05	1.67E-05	5.95E-03
564947.1	4182439.82	5.96E-03	1.68E-05	1.68E-05	5.99E-03

Risk Calculation Part 2, $\sum R1*C_{DPM}$ 12

				HI	
3rd Trimester	0<2	2<16	Total	C_{DPM}/REL	
4.31E-08	6.12E-07	0.00E+00	0.66	0.00	0
4.35E-08	6.17E-07	0.00E+00	0.66	0.00	0
4.41E-08	6.26E-07	0.00E+00	0.67	0.00	0
4.49E-08	6.38E-07	0.00E+00	0.68	0.00	0
4.58E-08	6.51E-07	0.00E+00	0.70	0.00	0
4.69E-08	6.66E-07	0.00E+00	0.71	0.00	0
4.80E-08	6.81E-07	0.00E+00	0.73	0.00	0
4.91E-08	6.97E-07	0.00E+00	0.75	0.00	0
5.02E-08	7.13E-07	0.00E+00	0.76	0.00	0
5.13E-08	7.28E-07	0.00E+00	0.78	0.00	0
5.23E-08	7.42E-07	0.00E+00	0.79	0.00	0
5.32E-08	7.56E-07	0.00E+00	0.81	0.00	0
5.40E-08	7.67E-07	0.00E+00	0.82	0.00	0
5.47E-08	7.76E-07	0.00E+00	0.83	0.00	0
5.51E-08	7.83E-07	0.00E+00	0.84	0.00	0
5.55E-08	7.88E-07	0.00E+00	0.84	0.00	0
5.57E-08	7.91E-07	0.00E+00	0.85	0.00	0
5.20E-08	7.38E-07	0.00E+00	0.79	0.00	0
5.40E-08	7.67E-07	0.00E+00	0.82	0.00	0
5.60E-08	7.95E-07	0.00E+00	0.85	0.00	0
5.80E-08	8.24E-07	0.00E+00	0.88	0.00	0
6.01E-08	8.54E-07	0.00E+00	0.91	0.00	0
6.18E-08	8.78E-07	0.00E+00	0.94	0.00	0
6.32E-08	8.97E-07	0.00E+00	0.96	0.00	0
6.41E-08	9.11E-07	0.00E+00	0.97	0.00	0
6.46E-08	9.18E-07	0.00E+00	0.98	0.00	0
6.47E-08	9.19E-07	0.00E+00	0.98	0.00	0
6.42E-08	9.12E-07	0.00E+00	0.98	0.00	0
6.34E-08	9.01E-07	0.00E+00	0.96	0.00	0
6.24E-08	8.86E-07	0.00E+00	0.95	0.00	0
6.14E-08	8.72E-07	0.00E+00	0.93	0.00	0
6.05E-08	8.58E-07	0.00E+00	0.92	0.00	0
5.96E-08	8.47E-07	0.00E+00	0.91	0.00	0
5.89E-08	8.36E-07	0.00E+00	0.90	0.00	0
5.83E-08	8.27E-07	0.00E+00	0.89	0.00	0
5.77E-08	8.20E-07	0.00E+00	0.88	0.00	0
5.72E-08	8.12E-07	0.00E+00	0.87	0.00	0
5.66E-08	8.04E-07	0.00E+00	0.86	0.00	0
5.59E-08	7.94E-07	0.00E+00	0.85	0.00	0
5.51E-08	7.82E-07	0.00E+00	0.84	0.00	0
5.41E-08	7.68E-07	0.00E+00	0.82	0.00	0
5.31E-08	7.54E-07	0.00E+00	0.81	0.00	0
5.21E-08	7.40E-07	0.00E+00	0.79	0.00	0
5.11E-08	7.26E-07	0.00E+00	0.78	0.00	0
5.02E-08	7.13E-07	0.00E+00	0.76	0.00	0
4.94E-08	7.01E-07	0.00E+00	0.75	0.00	0
4.86E-08	6.90E-07	0.00E+00	0.74	0.00	0
4.81E-08	6.82E-07	0.00E+00	0.73	0.00	0
4.78E-08	6.78E-07	0.00E+00	0.73	0.00	0
4.78E-08	6.79E-07	0.00E+00	0.73	0.00	0
4.82E-08	6.84E-07	0.00E+00	0.73	0.00	0
4.89E-08	6.94E-07	0.00E+00	0.74	0.00	0
4.98E-08	7.07E-07	0.00E+00	0.76	0.00	0
5.09E-08	7.23E-07	0.00E+00	0.77	0.00	0
5.22E-08	7.41E-07	0.00E+00	0.79	0.00	0
5.35E-08	7.60E-07	0.00E+00	0.81	0.00	0
5.48E-08	7.78E-07	0.00E+00	0.83	0.00	0
5.61E-08	7.97E-07	0.00E+00	0.85	0.00	0
5.73E-08	8.14E-07	0.00E+00	0.87	0.00	0
5.85E-08	8.30E-07	0.00E+00	0.89	0.00	0
5.95E-08	8.45E-07	0.00E+00	0.90	0.00	0
6.04E-08	8.57E-07	0.00E+00	0.92	0.00	0
6.11E-08	8.67E-07	0.00E+00	0.93	0.00	0
6.16E-08	8.74E-07	0.00E+00	0.94	0.00	0
6.19E-08	8.78E-07	0.00E+00	0.94	0.00	0
6.20E-08	8.80E-07	0.00E+00	0.94	0.00	0
6.19E-08	8.79E-07	0.00E+00	0.94	0.00	0
5.36E-08	7.61E-07	0.00E+00	0.82	0.00	0
5.59E-08	7.94E-07	0.00E+00	0.85	0.00	0
5.83E-08	8.28E-07	0.00E+00	0.89	0.00	0
6.07E-08	8.62E-07	0.00E+00	0.92	0.00	0
6.30E-08	8.95E-07	0.00E+00	0.96	0.00	0
6.55E-08	9.30E-07	0.00E+00	1.00	0.00	0
6.74E-08	9.57E-07	0.00E+00	1.02	0.00	0
6.89E-08	9.79E-07	0.00E+00	1.05	0.00	0
7.00E-08	9.95E-07	0.00E+00	1.06	0.00	0
7.06E-08	1.00E-06	0.00E+00	1.07	0.00	0
7.06E-08	1.00E-06	0.00E+00	1.07	0.00	0
7.01E-08	9.96E-07	0.00E+00	1.07	0.00	0
6.93E-08	9.84E-07	0.00E+00	1.05	0.00	0
6.83E-08	9.70E-07	0.00E+00	1.04	0.00	0
6.73E-08	9.56E-07	0.00E+00	1.02	0.00	0
6.63E-08	9.42E-07	0.00E+00	1.01	0.00	0
6.54E-08	9.29E-07	0.00E+00	0.99	0.00	0
6.45E-08	9.17E-07	0.00E+00	0.98	0.00	0
6.38E-08	9.05E-07	0.00E+00	0.97	0.00	0
6.30E-08	8.95E-07	0.00E+00	0.96	0.00	0
6.24E-08	8.86E-07	0.00E+00	0.95	0.00	0
6.16E-08	8.75E-07	0.00E+00	0.94	0.00	0
6.06E-08	8.61E-07	0.00E+00	0.92	0.00	0
5.96E-08	8.46E-07	0.00E+00	0.91	0.00	0
5.84E-08	8.30E-07	0.00E+00	0.89	0.00	0
5.73E-08	8.14E-07	0.00E+00	0.87	0.00	0
5.63E-08	7.99E-07	0.00E+00	0.86	0.00	0
5.53E-08	7.86E-07	0.00E+00	0.84	0.00	0
5.45E-08	7.74E-07	0.00E+00	0.83	0.00	0
5.38E-08	7.64E-07	0.00E+00	0.82	0.00	0
5.34E-08	7.59E-07	0.00E+00	0.81	0.00	0
5.34E-08	7.58E-07	0.00E+00	0.81	0.00	0
5.37E-08	7.63E-07	0.00E+00	0.82	0.00	0
5.45E-08	7.74E-07	0.00E+00	0.83	0.00	0
5.56E-08	7.90E-07	0.00E+00	0.85	0.00	0
5.70E-08	8.09E-07	0.00E+00	0.87	0.00	0
5.85E-08	8.31E-07	0.00E+00	0.89	0.00	0
6.01E-08	8.53E-07	0.00E+00	0.91	0.00	0
6.16E-08	8.75E-07	0.00E+00	0.94	0.00	0
6.32E-08	8.97E-07	0.00E+00	0.96	0.00	0
6.46E-08	9.17E-07	0.00E+00	0.98	0.00	0
6.59E-08	9.35E-07	0.00E+00	1.00	0.00	0
6.70E-08	9.51E-07	0.00E+00	1.02	0.00	0
6.79E-08	9.65E-07	0.00E+00	1.03	0.00	0
6.86E-08	9.75E-07	0.00E+00	1.04	0.00	0
6.91E-08	9.81E-07	0.00E+00	1.05	0.00	0

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

		Construction Emissions			
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total
564967.1	4182439.82	5.98E-03	1.68E-05	1.68E-05	6.01E-03
564987.1	4182439.82	5.98E-03	1.68E-05	1.68E-05	6.01E-03
565007.1	4182439.82	5.96E-03	1.68E-05	1.68E-05	5.99E-03
565027.1	4182439.82	5.92E-03	1.67E-05	1.67E-05	5.96E-03
564047.1	4182459.82	4.76E-03	1.34E-05	1.34E-05	4.78E-03
564067.1	4182459.82	4.98E-03	1.40E-05	1.40E-05	5.01E-03
564087.1	4182459.82	5.22E-03	1.47E-05	1.47E-05	5.25E-03
564107.1	4182459.82	5.46E-03	1.54E-05	1.54E-05	5.49E-03
564127.1	4182459.82	5.69E-03	1.60E-05	1.60E-05	5.73E-03
564147.1	4182459.82	5.96E-03	1.68E-05	1.68E-05	6.00E-03
564167.1	4182459.82	6.18E-03	1.74E-05	1.74E-05	6.21E-03
564187.1	4182459.82	6.37E-03	1.79E-05	1.79E-05	6.41E-03
564207.1	4182459.82	6.53E-03	1.84E-05	1.84E-05	6.56E-03
564227.1	4182459.82	6.64E-03	1.87E-05	1.87E-05	6.67E-03
564247.1	4182459.82	6.69E-03	1.89E-05	1.89E-05	6.73E-03
564267.1	4182459.82	6.69E-03	1.89E-05	1.89E-05	6.73E-03
564287.1	4182459.82	6.65E-03	1.87E-05	1.87E-05	6.69E-03
564307.1	4182459.82	6.58E-03	1.85E-05	1.85E-05	6.61E-03
564327.1	4182459.82	6.49E-03	1.83E-05	1.83E-05	6.53E-03
564347.1	4182459.82	6.41E-03	1.80E-05	1.80E-05	6.44E-03
564367.1	4182459.82	6.31E-03	1.78E-05	1.78E-05	6.35E-03
564387.1	4182459.82	6.22E-03	1.75E-05	1.75E-05	6.26E-03
564407.1	4182459.82	6.13E-03	1.73E-05	1.73E-05	6.16E-03
564427.1	4182459.82	6.04E-03	1.70E-05	1.70E-05	6.08E-03
564447.1	4182459.82	5.97E-03	1.68E-05	1.68E-05	6.00E-03
564467.1	4182459.82	5.89E-03	1.66E-05	1.66E-05	5.92E-03
564487.1	4182459.82	5.80E-03	1.63E-05	1.63E-05	5.83E-03
564507.1	4182459.82	5.69E-03	1.60E-05	1.60E-05	5.73E-03
564527.1	4182459.82	5.58E-03	1.57E-05	1.57E-05	5.61E-03
564547.1	4182459.82	5.48E-03	1.54E-05	1.54E-05	5.51E-03
564567.1	4182459.82	5.38E-03	1.52E-05	1.52E-05	5.41E-03
564587.1	4182459.82	5.30E-03	1.49E-05	1.49E-05	5.33E-03
564607.1	4182459.82	5.23E-03	1.48E-05	1.48E-05	5.26E-03
564627.1	4182459.82	5.19E-03	1.46E-05	1.46E-05	5.22E-03
564647.1	4182459.82	5.18E-03	1.46E-05	1.46E-05	5.21E-03
564667.1	4182459.82	5.21E-03	1.47E-05	1.47E-05	5.24E-03
564687.1	4182459.82	5.28E-03	1.49E-05	1.49E-05	5.31E-03
564707.1	4182459.82	5.40E-03	1.52E-05	1.52E-05	5.43E-03
564727.1	4182459.82	5.54E-03	1.56E-05	1.56E-05	5.57E-03
564747.1	4182459.82	5.70E-03	1.61E-05	1.61E-05	5.73E-03
564767.1	4182459.82	5.86E-03	1.65E-05	1.65E-05	5.90E-03
564787.1	4182459.82	6.03E-03	1.70E-05	1.70E-05	6.06E-03
564807.1	4182459.82	6.18E-03	1.74E-05	1.74E-05	6.22E-03
564827.1	4182459.82	6.33E-03	1.78E-05	1.78E-05	6.36E-03
564847.1	4182459.82	6.45E-03	1.82E-05	1.82E-05	6.49E-03
564867.1	4182459.82	6.56E-03	1.85E-05	1.85E-05	6.59E-03
564887.1	4182459.82	6.64E-03	1.87E-05	1.87E-05	6.68E-03
564907.1	4182459.82	6.70E-03	1.89E-05	1.89E-05	6.74E-03
564927.1	4182459.82	6.73E-03	1.90E-05	1.90E-05	6.77E-03
564947.1	4182459.82	6.74E-03	1.90E-05	1.90E-05	6.78E-03
564967.1	4182459.82	6.72E-03	1.89E-05	1.89E-05	6.76E-03
564987.1	4182459.82	6.68E-03	1.88E-05	1.88E-05	6.72E-03
565007.1	4182459.82	6.63E-03	1.87E-05	1.87E-05	6.66E-03
565027.1	4182459.82	6.55E-03	1.85E-05	1.85E-05	6.59E-03
564047.1	4182479.82	4.87E-03	1.37E-05	1.37E-05	4.89E-03
564067.1	4182479.82	5.12E-03	1.44E-05	1.44E-05	5.15E-03
564087.1	4182479.82	5.40E-03	1.52E-05	1.52E-05	5.43E-03
564107.1	4182479.82	5.68E-03	1.60E-05	1.60E-05	5.71E-03
564127.1	4182479.82	5.97E-03	1.68E-05	1.68E-05	6.00E-03
564147.1	4182479.82	6.26E-03	1.76E-05	1.76E-05	6.30E-03
564167.1	4182479.82	6.54E-03	1.84E-05	1.84E-05	6.58E-03
564187.1	4182479.82	6.80E-03	1.91E-05	1.91E-05	6.83E-03
564207.1	4182479.82	7.02E-03	1.98E-05	1.98E-05	7.06E-03
564227.1	4182479.82	7.21E-03	2.03E-05	2.03E-05	7.25E-03
564247.1	4182479.82	7.33E-03	2.07E-05	2.07E-05	7.38E-03
564267.1	4182479.82	7.40E-03	2.09E-05	2.09E-05	7.44E-03
564287.1	4182479.82	7.41E-03	2.09E-05	2.09E-05	7.45E-03
564307.1	4182479.82	7.36E-03	2.08E-05	2.08E-05	7.41E-03
564327.1	4182479.82	7.30E-03	2.06E-05	2.06E-05	7.34E-03
564347.1	4182479.82	7.21E-03	2.03E-05	2.03E-05	7.25E-03
564367.1	4182479.82	7.12E-03	2.01E-05	2.01E-05	7.16E-03
564387.1	4182479.82	7.01E-03	1.98E-05	1.98E-05	7.05E-03
564407.1	4182479.82	6.89E-03	1.94E-05	1.94E-05	6.93E-03
564427.1	4182479.82	6.77E-03	1.91E-05	1.91E-05	6.81E-03
564447.1	4182479.82	6.67E-03	1.88E-05	1.88E-05	6.71E-03
564467.1	4182479.82	6.58E-03	1.85E-05	1.85E-05	6.62E-03
564487.1	4182479.82	6.48E-03	1.83E-05	1.83E-05	6.51E-03
564507.1	4182479.82	6.36E-03	1.79E-05	1.79E-05	6.39E-03
564527.1	4182479.82	6.23E-03	1.76E-05	1.76E-05	6.27E-03
564547.1	4182479.82	6.12E-03	1.72E-05	1.72E-05	6.15E-03
564567.1	4182479.82	6.02E-03	1.70E-05	1.70E-05	6.05E-03
564587.1	4182479.82	5.94E-03	1.67E-05	1.67E-05	5.98E-03
564607.1	4182479.82	5.89E-03	1.66E-05	1.66E-05	5.93E-03
564627.1	4182479.82	5.88E-03	1.66E-05	1.66E-05	5.91E-03
564647.1	4182479.82	5.91E-03	1.67E-05	1.67E-05	5.94E-03
564667.1	4182479.82	5.99E-03	1.69E-05	1.69E-05	6.03E-03
564687.1	4182479.82	6.12E-03	1.73E-05	1.73E-05	6.16E-03
564707.1	4182479.82	6.29E-03	1.77E-05	1.77E-05	6.33E-03
564727.1	4182479.82	6.49E-03	1.83E-05	1.83E-05	6.53E-03
564747.1	4182479.82	6.70E-03	1.89E-05	1.89E-05	6.73E-03
564767.1	4182479.82	6.90E-03	1.94E-05	1.94E-05	6.94E-03
564787.1	4182479.82	7.09E-03	2.00E-05	2.00E-05	7.13E-03
564807.1	4182479.82	7.25E-03	2.04E-05	2.04E-05	7.29E-03
564827.1	4182479.82	7.39E-03	2.08E-05	2.08E-05	7.43E-03
564847.1	4182479.82	7.50E-03	2.11E-05	2.11E-05	7.54E-03
564867.1	4182479.82	7.58E-03	2.14E-05	2.14E-05	7.62E-03
564887.1	4182479.82	7.63E-03	2.15E-05	2.15E-05	7.68E-03
564907.1	4182479.82	7.65E-03	2.16E-05	2.16E-05	7.70E-03
564927.1	4182479.82	7.64E-03	2.15E-05	2.15E-05	7.68E-03
564947.1	4182479.82	7.60E-03	2.14E-05	2.14E-05	7.64E-03
564967.1	4182479.82	7.53E-03	2.12E-05	2.12E-05	7.58E-03
564987.1	4182479.82	7.45E-03	2.10E-05	2.10E-05	7.49E-03
565007.1	4182479.82	7.34E-03	2.07E-05	2.07E-05	7.38E-03
565027.1	4182479.82	7.22E-03	2.03E-05	2.03E-05	7.26E-03
564047.1	4182499.82	4.96E-03	1.40E-05	1.40E-05	4.98E-03
564067.1	4182499.82	5.25E-03	1.48E-05	1.48E-05	5.28E-03
564087.1	4182499.82	5.56E-03	1.57E-05	1.57E-05	5.59E-03
564107.1	4182499.82	5.88E-03	1.66E-05	1.66E-05	5.92E-03
564127.1	4182499.82	6.22E-03	1.75E-05	1.75E-05	6.25E-03
564147.1	4182499.82	6.56E-03	1.85E-05	1.85E-05	6.59E-03
564167.1	4182499.82	6.89E-03	1.94E-05	1.94E-05	6.93E-03
564187.1	4182499.82	7.21E-03	2.03E-05	2.03E-05	7.25E-03
564207.1	4182499.82	7.52E-03	2.12E-05	2.12E-05	7.56E-03

Risk Calculation Part 2, $\sum R1*C_{DPM}$ 12

				HI
3rd Trimester	0<2	2<16	Total	C_{DPM}/REL
6.93E-08	9.84E-07	0.00E+00	1.05	0.00 0
6.93E-08	9.84E-07	0.00E+00	1.05	0.00 0
6.91E-08	9.81E-07	0.00E+00	1.05	0.00 0
6.87E-08	9.75E-07	0.00E+00	1.04	0.00 0
5.51E-08	7.83E-07	0.00E+00	0.84	0.00 0
5.78E-08	8.20E-07	0.00E+00	0.88	0.00 0
6.05E-08	8.59E-07	0.00E+00	0.92	0.00 0
6.32E-08	8.98E-07	0.00E+00	0.96	0.00 0
6.60E-08	9.37E-07	0.00E+00	1.00	0.00 0
6.91E-08	9.82E-07	0.00E+00	1.05	0.00 0
7.16E-08	1.02E-06	0.00E+00	1.09	0.00 0
7.38E-08	1.05E-06	0.00E+00	1.12	0.00 0
7.56E-08	1.07E-06	0.00E+00	1.15	0.00 0
7.69E-08	1.09E-06	0.00E+00	1.17	0.00 0
7.76E-08	1.10E-06	0.00E+00	1.18	0.00 0
7.76E-08	1.10E-06	0.00E+00	1.18	0.00 0
7.71E-08	1.09E-06	0.00E+00	1.17	0.00 0
7.62E-08	1.08E-06	0.00E+00	1.16	0.00 0
7.53E-08	1.07E-06	0.00E+00	1.14	0.00 0
7.43E-08	1.05E-06	0.00E+00	1.13	0.00 0
7.32E-08	1.04E-06	0.00E+00	1.11	0.00 0
7.21E-08	1.02E-06	0.00E+00	1.10	0.00 0
7.10E-08	1.01E-06	0.00E+00	1.08	0.00 0
7.00E-08	9.95E-07	0.00E+00	1.06	0.00 0
6.92E-08	9.82E-07	0.00E+00	1.05	0.00 0
6.83E-08	9.69E-07	0.00E+00	1.04	0.00 0
6.72E-08	9.55E-07	0.00E+00	1.02	0.00 0
6.60E-08	9.37E-07	0.00E+00	1.00	0.00 0
6.47E-08	9.19E-07	0.00E+00	0.98	0.00 0
6.35E-08	9.02E-07	0.00E+00	0.97	0.00 0
6.24E-08	8.86E-07	0.00E+00	0.95	0.00 0
6.14E-08	8.73E-07	0.00E+00	0.93	0.00 0
6.07E-08	8.62E-07	0.00E+00	0.92	0.00 0
6.02E-08	8.55E-07	0.00E+00	0.91	0.00 0
6.01E-08	8.53E-07	0.00E+00	0.91	0.00 0
6.04E-08	8.58E-07	0.00E+00	0.92	0.00 0
6.13E-08	8.70E-07	0.00E+00	0.93	0.00 0
6.26E-08	8.88E-07	0.00E+00	0.95	0.00 0
6.42E-08	9.12E-07	0.00E+00	0.98	0.00 0
6.61E-08	9.38E-07	0.00E+00	1.00	0.00 0
6.80E-08	9.65E-07	0.00E+00	1.03	0.00 0
6.99E-08	9.93E-07	0.00E+00	1.06	0.00 0
7.17E-08	1.02E-06	0.00E+00	1.09	0.00 0
7.33E-08	1.04E-06	0.00E+00	1.11	0.00 0
7.48E-08	1.06E-06	0.00E+00	1.14	0.00 0
7.60E-08	1.08E-06	0.00E+00	1.16	0.00 0
7.70E-08	1.09E-06	0.00E+00	1.17	0.00 0
7.77E-08	1.10E-06	0.00E+00	1.18	0.00 0
7.80E-08	1.11E-06	0.00E+00	1.19	0.00 0
7.81E-08	1.11E-06	0.00E+00	1.19	0.00 0
7.79E-08	1.11E-06	0.00E+00	1.18	0.00 0
7.75E-08	1.10E-06	0.00E+00	1.18	0.00 0
7.68E-08	1.09E-06	0.00E+00	1.17	0.00 0
7.60E-08	1.08E-06	0.00E+00	1.15	0.00 0
5.64E-08	8.01E-07	0.00E+00	0.86	0.00 0
5.94E-08	8.44E-07	0.00E+00	0.90	0.00 0
6.26E-08	8.89E-07	0.00E+00	0.95	0.00 0
6.59E-08	9.35E-07	0.00E+00	1.00	0.00 0
6.92E-08	9.82E-07	0.00E+00	1.05	0.00 0
7.26E-08	1.03E-06	0.00E+00	1.10	0.00 0
7.58E-08	1.08E-06	0.00E+00	1.15	0.00 0
7.88E-08	1.12E-06	0.00E+00	1.20	0.00 0
8.14E-08	1.16E-06	0.00E+00	1.24	0.00 0
8.35E-08	1.19E-06	0.00E+00	1.27	0.00 0
8.50E-08	1.21E-06	0.00E+00	1.29	0.00 0
8.58E-08	1.22E-06	0.00E+00	1.30	0.00 0
8.58E-08	1.22E-06	0.00E+00	1.31	0.00 0
8.54E-08	1.21E-06	0.00E+00	1.30	0.00 0
8.46E-08	1.20E-06	0.00E+00	1.29	0.00 0
8.36E-08	1.19E-06	0.00E+00	1.27	0.00 0
8.25E-08	1.17E-06	0.00E+00	1.25	0.00 0
8.13E-08	1.15E-06	0.00E+00	1.24	0.00 0
7.99E-08	1.13E-06	0.00E+00	1.21	0.00 0
7.85E-08	1.12E-06	0.00E+00	1.19	0.00 0
7.73E-08	1.10E-06	0.00E+00	1.18	0.00 0
7.63E-08	1.08E-06	0.00E+00	1.16	0.00 0
7.51E-08	1.07E-06	0.00E+00	1.14	0.00 0
7.37E-08	1.05E-06	0.00E+00	1.12	0.00 0
7.23E-08	1.03E-06	0.00E+00	1.10	0.00 0
7.09E-08	1.01E-06	0.00E+00	1.08	0.00 0
6.98E-08	9.91E-07	0.00E+00	1.06	0.00 0
6.89E-08	9.78E-07	0.00E+00	1.05	0.00 0
6.83E-08	9.70E-07	0.00E+00	1.04	0.00 0
6.82E-08	9.68E-07	0.00E+00	1.04	0.00 0
6.85E-08	9.73E-07	0.00E+00	1.04	0.00 0
6.95E-08	9.86E-07	0.00E+00	1.06	0.00 0
7.10E-08	1.01E-06	0.00E+00	1.08	0.00 0
7.30E-08	1.04E-06	0.00E+00	1.11	0.00 0
7.52E-08	1.07E-06	0.00E+00	1.14	0.00 0
7.76E-08	1.10E-06	0.00E+00	1.18	0.00 0
8.00E-08	1.14E-06	0.00E+00	1.22	0.00 0
8.21E-08	1.17E-06	0.00E+00	1.25	0.00 0
8.40E-08	1.19E-06	0.00E+00	1.28	0.00 0
8.57E-08	1.22E-06	0.00E+00	1.30	0.00 0
8.69E-08	1.23E-06	0.00E+00	1.32	0.00 0
8.79E-08	1.25E-06	0.00E+00	1.34	0.00 0
8.85E-08	1.26E-06	0.00E+00	1.35	0.00 0
8.87E-08	1.26E-06	0.00E+00	1.35	0.00 0
8.86E-08	1.26E-06	0.00E+00	1.35	0.00 0
8.81E-08	1.25E-06	0.00E+00	1.34	0.00 0
8.73E-08	1.24E-06	0.00E+00	1.33	0.00 0
8.63E-08	1.23E-06	0.00E+00	1.31	0.00 0
8.51E-08	1.21E-06	0.00E+00	1.29	0.00 0
8.37E-08	1.19E-06	0.00E+00	1.27	0.00 0
5.75E-08	8.16E-07	0.00E+00	0.87	0.00 0
6.08E-08	8.64E-07	0.00E+00	0.92	0.00 0
6.44E-08	9.15E-07	0.00E+00	0.98	0.00 0
6.82E-08	9.68E-07	0.00E+00	1.04	0.00 0
7.21E-08	1.02E-06	0.00E+00	1.10	0.00 0
7.60E-08	1.08E-06	0.00E+00	1.16	0.00 0
7.99E-08	1.13E-06	0.00E+00	1.21	0.00 0
8.36E-08	1.19E-06	0.00E+00	1.27	0.00 0
8.72E-08	1.24E-06	0.00E+00	1.33	0.00 0

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

		Construction Emissions			
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total
564227.1	4182499.82	7.79E-03	2.20E-05	2.20E-05	7.84E-03
564247.1	4182499.82	8.01E-03	2.26E-05	2.26E-05	8.06E-03
564267.1	4182499.82	8.17E-03	2.30E-05	2.30E-05	8.21E-03
564287.1	4182499.82	8.25E-03	2.32E-05	2.32E-05	8.29E-03
564307.1	4182499.82	8.26E-03	2.33E-05	2.33E-05	8.31E-03
564327.1	4182499.82	8.23E-03	2.32E-05	2.32E-05	8.27E-03
564347.1	4182499.82	8.17E-03	2.30E-05	2.30E-05	8.21E-03
564367.1	4182499.82	8.08E-03	2.28E-05	2.28E-05	8.13E-03
564387.1	4182499.82	7.97E-03	2.25E-05	2.25E-05	8.02E-03
564407.1	4182499.82	7.83E-03	2.21E-05	2.21E-05	7.87E-03
564427.1	4182499.82	7.68E-03	2.16E-05	2.16E-05	7.72E-03
564447.1	4182499.82	7.54E-03	2.12E-05	2.12E-05	7.58E-03
564467.1	4182499.82	7.42E-03	2.09E-05	2.09E-05	7.46E-03
564487.1	4182499.82	7.30E-03	2.06E-05	2.06E-05	7.34E-03
564507.1	4182499.82	7.16E-03	2.02E-05	2.02E-05	7.20E-03
564527.1	4182499.82	7.02E-03	1.98E-05	1.98E-05	7.06E-03
564547.1	4182499.82	6.90E-03	1.94E-05	1.94E-05	6.93E-03
564567.1	4182499.82	6.80E-03	1.92E-05	1.92E-05	6.84E-03
564587.1	4182499.82	6.75E-03	1.90E-05	1.90E-05	6.78E-03
564607.1	4182499.82	6.73E-03	1.90E-05	1.90E-05	6.77E-03
564627.1	4182499.82	6.77E-03	1.91E-05	1.91E-05	6.80E-03
564647.1	4182499.82	6.86E-03	1.93E-05	1.93E-05	6.90E-03
564667.1	4182499.82	7.02E-03	1.98E-05	1.98E-05	7.06E-03
564687.1	4182499.82	7.22E-03	2.04E-05	2.04E-05	7.27E-03
564707.1	4182499.82	7.47E-03	2.10E-05	2.10E-05	7.51E-03
564727.1	4182499.82	7.73E-03	2.18E-05	2.18E-05	7.77E-03
564747.1	4182499.82	7.98E-03	2.25E-05	2.25E-05	8.02E-03
564767.1	4182499.82	8.20E-03	2.31E-05	2.31E-05	8.25E-03
564787.1	4182499.82	8.40E-03	2.37E-05	2.37E-05	8.44E-03
564807.1	4182499.82	8.55E-03	2.41E-05	2.41E-05	8.60E-03
564827.1	4182499.82	8.66E-03	2.44E-05	2.44E-05	8.71E-03
564847.1	4182499.82	8.74E-03	2.46E-05	2.46E-05	8.78E-03
564867.1	4182499.82	8.77E-03	2.47E-05	2.47E-05	8.82E-03
564887.1	4182499.82	8.76E-03	2.47E-05	2.47E-05	8.81E-03
564907.1	4182499.82	8.72E-03	2.46E-05	2.46E-05	8.77E-03
564927.1	4182499.82	8.63E-03	2.43E-05	2.43E-05	8.68E-03
564947.1	4182499.82	8.54E-03	2.41E-05	2.41E-05	8.58E-03
564967.1	4182499.82	8.41E-03	2.37E-05	2.37E-05	8.46E-03
564987.1	4182499.82	8.26E-03	2.33E-05	2.33E-05	8.31E-03
565007.1	4182499.82	8.09E-03	2.28E-05	2.28E-05	8.14E-03
565027.1	4182499.82	7.91E-03	2.23E-05	2.23E-05	7.96E-03
564047.1	4182519.82	5.05E-03	1.42E-05	1.42E-05	5.07E-03
564067.1	4182519.82	5.37E-03	1.51E-05	1.51E-05	5.40E-03
564087.1	4182519.82	5.71E-03	1.61E-05	1.61E-05	5.74E-03
564107.1	4182519.82	6.06E-03	1.71E-05	1.71E-05	6.10E-03
564127.1	4182519.82	6.43E-03	1.81E-05	1.81E-05	6.47E-03
564147.1	4182519.82	6.82E-03	1.92E-05	1.92E-05	6.86E-03
564167.1	4182519.82	7.22E-03	2.03E-05	2.03E-05	7.26E-03
564187.1	4182519.82	7.62E-03	2.15E-05	2.15E-05	7.66E-03
564207.1	4182519.82	8.01E-03	2.26E-05	2.26E-05	8.05E-03
564227.1	4182519.82	8.38E-03	2.36E-05	2.36E-05	8.43E-03
564247.1	4182519.82	8.71E-03	2.46E-05	2.46E-05	8.76E-03
564267.1	4182519.82	8.98E-03	2.53E-05	2.53E-05	9.03E-03
564287.1	4182519.82	9.17E-03	2.58E-05	2.58E-05	9.22E-03
564307.1	4182519.82	9.27E-03	2.61E-05	2.61E-05	9.33E-03
564327.1	4182519.82	9.31E-03	2.62E-05	2.62E-05	9.36E-03
564347.1	4182519.82	9.29E-03	2.62E-05	2.62E-05	9.34E-03
564367.1	4182519.82	9.24E-03	2.60E-05	2.60E-05	9.29E-03
564387.1	4182519.82	9.14E-03	2.58E-05	2.58E-05	9.19E-03
564407.1	4182519.82	8.99E-03	2.53E-05	2.53E-05	9.04E-03
564427.1	4182519.82	8.81E-03	2.48E-05	2.48E-05	8.86E-03
564447.1	4182519.82	8.63E-03	2.43E-05	2.43E-05	8.68E-03
564467.1	4182519.82	8.46E-03	2.38E-05	2.38E-05	8.51E-03
564487.1	4182519.82	8.31E-03	2.34E-05	2.34E-05	8.36E-03
564507.1	4182519.82	8.16E-03	2.30E-05	2.30E-05	8.20E-03
564527.1	4182519.82	8.00E-03	2.25E-05	2.25E-05	8.05E-03
564547.1	4182519.82	7.87E-03	2.22E-05	2.22E-05	7.91E-03
564567.1	4182519.82	7.79E-03	2.20E-05	2.20E-05	7.84E-03
564587.1	4182519.82	7.78E-03	2.19E-05	2.19E-05	7.82E-03
564607.1	4182519.82	7.82E-03	2.20E-05	2.20E-05	7.87E-03
564627.1	4182519.82	7.94E-03	2.24E-05	2.24E-05	7.99E-03
564647.1	4182519.82	8.14E-03	2.29E-05	2.29E-05	8.18E-03
564667.1	4182519.82	8.39E-03	2.37E-05	2.37E-05	8.44E-03
564687.1	4182519.82	8.70E-03	2.45E-05	2.45E-05	8.75E-03
564707.1	4182519.82	9.02E-03	2.54E-05	2.54E-05	9.08E-03
564727.1	4182519.82	9.34E-03	2.63E-05	2.63E-05	9.39E-03
564747.1	4182519.82	9.62E-03	2.71E-05	2.71E-05	9.67E-03
564767.1	4182519.82	9.84E-03	2.77E-05	2.77E-05	9.90E-03
564787.1	4182519.82	1.00E-02	2.82E-05	2.82E-05	1.01E-02
564807.1	4182519.82	1.01E-02	2.85E-05	2.85E-05	1.02E-02
564827.1	4182519.82	1.02E-02	2.86E-05	2.86E-05	1.02E-02
564847.1	4182519.82	1.02E-02	2.86E-05	2.86E-05	1.02E-02
564867.1	4182519.82	1.01E-02	2.85E-05	2.85E-05	1.02E-02
564887.1	4182519.82	1.00E-02	2.83E-05	2.83E-05	1.01E-02
564907.1	4182519.82	9.82E-03	2.77E-05	2.77E-05	9.88E-03
564927.1	4182519.82	9.58E-03	2.70E-05	2.70E-05	9.64E-03
564947.1	4182519.82	9.44E-03	2.66E-05	2.66E-05	9.49E-03
564967.1	4182519.82	9.32E-03	2.63E-05	2.63E-05	9.37E-03

Risk Calculation Part 2, $\sum R1*C_{DPM}$ 12

				HI
3rd Trimester	0<2	2<16	Total	C_{DPM}/REL
9.03E-08	1.28E-06	0.00E+00	1.37	0.00 0
9.29E-08	1.32E-06	0.00E+00	1.41	0.00 0
9.47E-08	1.34E-06	0.00E+00	1.44	0.00 0
9.56E-08	1.36E-06	0.00E+00	1.45	0.00 0
9.58E-08	1.36E-06	0.00E+00	1.46	0.00 0
9.54E-08	1.35E-06	0.00E+00	1.45	0.00 0
9.47E-08	1.34E-06	0.00E+00	1.44	0.00 0
9.37E-08	1.33E-06	0.00E+00	1.42	0.00 0
9.24E-08	1.31E-06	0.00E+00	1.40	0.00 0
9.08E-08	1.29E-06	0.00E+00	1.38	0.00 0
8.90E-08	1.26E-06	0.00E+00	1.35	0.00 0
8.74E-08	1.24E-06	0.00E+00	1.33	0.00 0
8.60E-08	1.22E-06	0.00E+00	1.31	0.00 0
8.46E-08	1.20E-06	0.00E+00	1.29	0.00 0
8.31E-08	1.18E-06	0.00E+00	1.26	0.00 0
8.14E-08	1.16E-06	0.00E+00	1.24	0.00 0
7.99E-08	1.14E-06	0.00E+00	1.22	0.00 0
7.89E-08	1.12E-06	0.00E+00	1.20	0.00 0
7.82E-08	1.11E-06	0.00E+00	1.19	0.00 0
7.80E-08	1.11E-06	0.00E+00	1.19	0.00 0
7.84E-08	1.11E-06	0.00E+00	1.19	0.00 0
7.95E-08	1.13E-06	0.00E+00	1.21	0.00 0
8.13E-08	1.16E-06	0.00E+00	1.24	0.00 0
8.38E-08	1.19E-06	0.00E+00	1.27	0.00 0
8.66E-08	1.23E-06	0.00E+00	1.32	0.00 0
8.96E-08	1.27E-06	0.00E+00	1.36	0.00 0
9.25E-08	1.31E-06	0.00E+00	1.41	0.00 0
9.51E-08	1.35E-06	0.00E+00	1.45	0.00 0
9.73E-08	1.38E-06	0.00E+00	1.48	0.00 0
9.91E-08	1.41E-06	0.00E+00	1.51	0.00 0
1.00E-07	1.43E-06	0.00E+00	1.53	0.00 0
1.01E-07	1.44E-06	0.00E+00	1.54	0.00 0
1.02E-07	1.44E-06	0.00E+00	1.55	0.00 0
1.02E-07	1.44E-06	0.00E+00	1.54	0.00 0
1.01E-07	1.44E-06	0.00E+00	1.54	0.00 0
1.00E-07	1.42E-06	0.00E+00	1.52	0.00 0
9.90E-08	1.41E-06	0.00E+00	1.50	0.00 0
9.75E-08	1.38E-06	0.00E+00	1.48	0.00 0
9.58E-08	1.36E-06	0.00E+00	1.46	0.00 0
9.38E-08	1.33E-06	0.00E+00	1.43	0.00 0
9.17E-08	1.30E-06	0.00E+00	1.39	0.00 0
5.85E-08	8.31E-07	0.00E+00	0.89	0.00 0
6.22E-08	8.83E-07	0.00E+00	0.95	0.00 0
6.61E-08	9.39E-07	0.00E+00	1.01	0.00 0
7.03E-08	9.98E-07	0.00E+00	1.07	0.00 0
7.46E-08	1.06E-06	0.00E+00	1.13	0.00 0
7.91E-08	1.12E-06	0.00E+00	1.20	0.00 0
8.37E-08	1.19E-06	0.00E+00	1.27	0.00 0
8.83E-08	1.25E-06	0.00E+00	1.34	0.00 0
9.28E-08	1.32E-06	0.00E+00	1.41	0.00 0
9.72E-08	1.38E-06	0.00E+00	1.48	0.00 0
1.01E-07	1.43E-06	0.00E+00	1.54	0.00 0
1.04E-07	1.48E-06	0.00E+00	1.58	0.00 0
1.06E-07	1.51E-06	0.00E+00	1.62	0.00 0
1.08E-07	1.53E-06	0.00E+00	1.63	0.00 0
1.08E-07	1.53E-06	0.00E+00	1.64	0.00 0
1.08E-07	1.53E-06	0.00E+00	1.64	0.00 0
1.07E-07	1.52E-06	0.00E+00	1.63	0.00 0
1.06E-07	1.50E-06	0.00E+00	1.61	0.00 0
1.04E-07	1.48E-06	0.00E+00	1.58	0.00 0
1.02E-07	1.45E-06	0.00E+00	1.55	0.00 0
1.00E-07	1.42E-06	0.00E+00	1.52	0.00 0
9.81E-08	1.39E-06	0.00E+00	1.49	0.00 0
9.64E-08	1.37E-06	0.00E+00	1.47	0.00 0
9.46E-08	1.34E-06	0.00E+00	1.44	0.00 0
9.27E-08	1.32E-06	0.00E+00	1.41	0.00 0
9.12E-08	1.30E-06	0.00E+00	1.39	0.00 0
9.03E-08	1.28E-06	0.00E+00	1.37	0.00 0
9.02E-08	1.28E-06	0.00E+00	1.37	0.00 0
9.07E-08	1.29E-06	0.00E+00	1.38	0.00 0
9.21E-08	1.31E-06	0.00E+00	1.40	0.00 0
9.43E-08	1.34E-06	0.00E+00	1.43	0.00 0
9.73E-08	1.38E-06	0.00E+00	1.48	0.00 0
1.01E-07	1.43E-06	0.00E+00	1.53	0.00 0
1.05E-07	1.49E-06	0.00E+00	1.59	0.00 0
1.08E-07	1.54E-06	0.00E+00	1.65	0.00 0
1.11E-07	1.58E-06	0.00E+00	1.69	0.00 0
1.14E-07	1.62E-06	0.00E+00	1.73	0.00 0
1.16E-07	1.65E-06	0.00E+00	1.76	0.00 0
1.17E-07	1.66E-06	0.00E+00	1.78	0.00 0
1.18E-07	1.67E-06	0.00E+00	1.79	0.00 0
1.18E-07	1.67E-06	0.00E+00	1.79	0.00 0
1.17E-07	1.67E-06	0.00E+00	1.78	0.00 0
1.16E-07	1.65E-06	0.00E+00	1.77	0.00 0
1.14E-07	1.62E-06	0.00E+00	1.73	0.00 0
1.11E-07	1.58E-06	0.00E+00	1.69	0.00 0
1.09E-07	1.55E-06	0.00E+00	1.66	0.00 0
1.08E-07	1.53E-06	0.00E+00	1.64	0.00 0

Estuary Park

Residential Receptors - Unmitigated Construction Cancer Risk and Chronic Hazard Index

Haul Truck Trip Lengths

Source Name	One-Way Trip Length (mi)		AERMOD Modeled Length (m)		Modeled Fraction	
	Haul	Vendor	Haul	Vendor	Haul	Vendor
T_WB	20	7.3	776	776	0.024	0.066
T_EB	20	7.3	776	776	0.024	0.066

AERMOD Variable Emissions

HROFDY	24	hr/day

			Days					Total Mitigated DPM (tons)		
	Start		1/1/2024	1/1/2024	1/1/2026					
	Stop		3/31/2024	12/31/2025						
			90	730						
Phase Name	Start Date	End Date	3rd Trimester	Age 0<2	Age 2<16	Workdays	Exposure Days	Onsite Offroad	Haul Truck	Vendor Truck
Construction	1/1/2024	6/3/2025	91.00	428.00	0	372	519	4.45E-02	9.80E-03	9.80E-03

			Total Mitigated DPM (g/s)		
Phase Name	Start Date	End Date	CSTN	T_WB	T_EB
Construction	1/1/2024	6/3/2025	1.26E-03	1.79E-05	1.79E-05

Risk Factors

	Abbreviation	UOM	3rd Trimester	0<2	Age 2<16
Daily Breathing Rate (95th %'ile)	DBR	L/kg-day	361	1090	572
Fraction Of Time At Home	FAH	unitless	0.85	0.85	0.72
Exposure Frequency	EF	days/year	0.96	0.96	0.96
Age Sensitivity Factor	ASF	unitless	10	10	3
Inhalation Absorption Factor	A	unitless	1	1	1
Conversion Factor	CF_1	m^3/L	0.001	0.001	0.001
Conversion Factor	CF_2	$\mu g/m^3$	0.001	0.001	0.001
Cancer Potency Factor (diesel exhau	CPF	$mg/kg\text{-}day^{-1}$	1.1	1.1	1.1
Averaging Time (for residential expo	AT	years	70.00	70.00	70.00

Intake Factor for Inhalation, IF (m^3/kg-day)

Phase Name	Equation	3rd Trimester	0<2	2<16
Construction	DBR*FAH*EF *ED*ASF*A*	0.01	0.15	0.00

Risk Calculation Part 1, R1

	3rd Trimester	0<2	2<16
IF*CPF*CF	1.15E-05	1.64E-04	0.00E+00

REL

DPM	5	μ/m^3

	Cancer Risk	UTM X	UTM Y	
Cancer Risk	4.5	564467.1	4182859.82	Residence
Chronic Risk	0.005	564467.1	4182859.82	Residence

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Risk Calculation Part 2, $\sum R1*C_{DPM}$ 12

		Construction Emissions								HI
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total	3rd Trimester	0<2	2<16	Total	C_{DPM}/REL	
564047.1	4182339.82	8.74E-04	1.24E-05	1.24E-05	8.99E-04	1.04E-08	1.47E-07	0.00E+00	0.16	0.00	0
564067.1	4182339.82	8.93E-04	1.27E-05	1.27E-05	9.18E-04	1.06E-08	1.50E-07	0.00E+00	0.16	0.00	0
564087.1	4182339.82	9.09E-04	1.29E-05	1.29E-05	9.35E-04	1.08E-08	1.53E-07	0.00E+00	0.16	0.00	0
564107.1	4182339.82	9.23E-04	1.31E-05	1.31E-05	9.49E-04	1.09E-08	1.55E-07	0.00E+00	0.17	0.00	0
564127.1	4182339.82	9.30E-04	1.32E-05	1.32E-05	9.57E-04	1.10E-08	1.57E-07	0.00E+00	0.17	0.00	0
564147.1	4182339.82	9.32E-04	1.33E-05	1.33E-05	9.59E-04	1.11E-08	1.57E-07	0.00E+00	0.17	0.00	0
564167.1	4182339.82	9.26E-04	1.32E-05	1.32E-05	9.52E-04	1.10E-08	1.56E-07	0.00E+00	0.17	0.00	0
564187.1	4182339.82	9.16E-04	1.30E-05	1.30E-05	9.42E-04	1.09E-08	1.54E-07	0.00E+00	0.17	0.00	0
564207.1	4182339.82	9.00E-04	1.28E-05	1.28E-05	9.26E-04	1.07E-08	1.52E-07	0.00E+00	0.16	0.00	0
564227.1	4182339.82	8.82E-04	1.25E-05	1.25E-05	9.07E-04	1.05E-08	1.48E-07	0.00E+00	0.16	0.00	0
564247.1	4182339.82	8.65E-04	1.23E-05	1.23E-05	8.90E-04	1.03E-08	1.46E-07	0.00E+00	0.16	0.00	0
564267.1	4182339.82	8.48E-04	1.21E-05	1.21E-05	8.72E-04	1.00E-08	1.43E-07	0.00E+00	0.15	0.00	0
564287.1	4182339.82	8.34E-04	1.19E-05	1.19E-05	8.58E-04	9.89E-09	1.40E-07	0.00E+00	0.15	0.00	0
564307.1	4182339.82	8.29E-04	1.18E-05	1.18E-05	8.53E-04	9.83E-09	1.40E-07	0.00E+00	0.15	0.00	0
564327.1	4182339.82	8.23E-04	1.17E-05	1.17E-05	8.47E-04	9.76E-09	1.39E-07	0.00E+00	0.15	0.00	0
564347.1	4182339.82	8.20E-04	1.17E-05	1.17E-05	8.44E-04	9.72E-09	1.38E-07	0.00E+00	0.15	0.00	0
564367.1	4182339.82	8.19E-04	1.17E-05	1.17E-05	8.43E-04	9.71E-09	1.38E-07	0.00E+00	0.15	0.00	0
564387.1	4182339.82	8.19E-04	1.17E-05	1.17E-05	8.42E-04	9.71E-09	1.38E-07	0.00E+00	0.15	0.00	0
564407.1	4182339.82	8.16E-04	1.16E-05	1.16E-05	8.40E-04	9.68E-09	1.37E-07	0.00E+00	0.15	0.00	0
564427.1	4182339.82	8.11E-04	1.15E-05	1.15E-05	8.34E-04	9.62E-09	1.37E-07	0.00E+00	0.15	0.00	0
564447.1	4182339.82	8.02E-04	1.14E-05	1.14E-05	8.25E-04	9.51E-09	1.35E-07	0.00E+00	0.14	0.00	0
564467.1	4182339.82	7.90E-04	1.12E-05	1.12E-05	8.13E-04	9.37E-09	1.33E-07	0.00E+00	0.14	0.00	0
564487.1	4182339.82	7.77E-04	1.11E-05	1.11E-05	7.99E-04	9.21E-09	1.31E-07	0.00E+00	0.14	0.00	0
564507.1	4182339.82	7.63E-04	1.09E-05	1.09E-05	7.85E-04	9.05E-09	1.28E-07	0.00E+00	0.14	0.00	0
564527.1	4182339.82	7.50E-04	1.07E-05	1.07E-05	7.71E-04	8.89E-09	1.26E-07	0.00E+00	0.14	0.00	0
564547.1	4182339.82	7.37E-04	1.05E-05	1.05E-05	7.57E-04	8.73E-09	1.24E-07	0.00E+00	0.13	0.00	0
564567.1	4182339.82	7.24E-04	1.03E-05	1.03E-05	7.44E-04	8.58E-09	1.22E-07	0.00E+00	0.13	0.00	0
564587.1	4182339.82	7.11E-04	1.01E-05	1.01E-05	7.31E-04	8.43E-09	1.20E-07	0.00E+00	0.13	0.00	0
564607.1	4182339.82	6.98E-04	9.93E-06	9.93E-06	7.18E-04	8.27E-09	1.18E-07	0.00E+00	0.13	0.00	0
564627.1	4182339.82	6.85E-04	9.74E-06	9.74E-06	7.04E-04	8.12E-09	1.15E-07	0.00E+00	0.12	0.00	0
564647.1	4182339.82	6.72E-04	9.56E-06	9.56E-06	6.91E-04	7.96E-09	1.13E-07	0.00E+00	0.12	0.00	0
564667.1	4182339.82	6.60E-04	9.39E-06	9.39E-06	6.79E-04	7.82E-09	1.11E-07	0.00E+00	0.12	0.00	0
564687.1	4182339.82	6.50E-04	9.26E-06	9.26E-06	6.69E-04	7.71E-09	1.10E-07	0.00E+00	0.12	0.00	0
564707.1	4182339.82	6.44E-04	9.17E-06	9.17E-06	6.62E-04	7.64E-09	1.08E-07	0.00E+00	0.12	0.00	0
564727.1	4182339.82	6.41E-04	9.12E-06	9.12E-06	6.59E-04	7.60E-09	1.08E-07	0.00E+00	0.12	0.00	0
564747.1	4182339.82	6.41E-04	9.13E-06	9.13E-06	6.60E-04	7.61E-09	1.08E-07	0.00E+00	0.12	0.00	0
564767.1	4182339.82	6.45E-04	9.18E-06	9.18E-06	6.63E-04	7.65E-09	1.09E-07	0.00E+00	0.12	0.00	0
564787.1	4182339.82	6.51E-04	9.26E-06	9.26E-06	6.69E-04	7.72E-09	1.10E-07	0.00E+00	0.12	0.00	0
564807.1	4182339.82	6.59E-04	9.38E-06	9.38E-06	6.78E-04	7.81E-09	1.11E-07	0.00E+00	0.12	0.00	0
564827.1	4182339.82	6.69E-04	9.52E-06	9.52E-06	6.88E-04	7.93E-09	1.13E-07	0.00E+00	0.12	0.00	0
564847.1	4182339.82	6.81E-04	9.69E-06	9.69E-06	7.00E-04	8.07E-09	1.15E-07	0.00E+00	0.12	0.00	0
564867.1	4182339.82	6.93E-04	9.87E-06	9.87E-06	7.13E-04	8.22E-09	1.17E-07	0.00E+00	0.12	0.00	0
564887.1	4182339.82	7.07E-04	1.01E-05	1.01E-05	7.27E-04	8.38E-09	1.19E-07	0.00E+00	0.13	0.00	0
564907.1	4182339.82	7.21E-04	1.03E-05	1.03E-05	7.42E-04	8.55E-09	1.21E-07	0.00E+00	0.13	0.00	0
564927.1	4182339.82	7.35E-04	1.05E-05	1.05E-05	7.56E-04	8.72E-09	1.24E-07	0.00E+00	0.13	0.00	0
564947.1	4182339.82	7.49E-04	1.07E-05	1.07E-05	7.71E-04	8.88E-09	1.26E-07	0.00E+00	0.14	0.00	0
564967.1	4182339.82	7.63E-04	1.09E-05	1.09E-05	7.85E-04	9.05E-09	1.28E-07	0.00E+00	0.14	0.00	0
564987.1	4182339.82	7.76E-04	1.10E-05	1.10E-05	7.98E-04	9.19E-09	1.31E-07	0.00E+00	0.14	0.00	0
565007.1	4182339.82	7.87E-04	1.12E-05	1.12E-05	8.09E-04	9.33E-09	1.32E-07	0.00E+00	0.14	0.00	0
565027.1	4182339.82	7.97E-04	1.13E-05	1.13E-05	8.19E-04	9.45E-09	1.34E-07	0.00E+00	0.14	0.00	0
564047.1	4182359.82	9.13E-04	1.30E-05	1.30E-05	9.39E-04	1.08E-08	1.54E-07	0.00E+00	0.16	0.00	0
564067.1	4182359.82	9.37E-04	1.33E-05	1.33E-05	9.63E-04	1.11E-08	1.58E-07	0.00E+00	0.17	0.00	0
564087.1	4182359.82	9.57E-04	1.36E-05	1.36E-05	9.85E-04	1.14E-08	1.61E-07	0.00E+00	0.17	0.00	0
564107.1	4182359.82	9.76E-04	1.39E-05	1.39E-05	1.00E-03	1.16E-08	1.64E-07	0.00E+00	0.18	0.00	0
564127.1	4182359.82	9.91E-04	1.41E-05	1.41E-05	1.02E-03	1.17E-08	1.67E-07	0.00E+00	0.18	0.00	0
564147.1	4182359.82	9.99E-04	1.42E-05	1.42E-05	1.03E-03	1.18E-08	1.68E-07	0.00E+00	0.18	0.00	0
564167.1	4182359.82	9.99E-04	1.42E-05	1.42E-05	1.03E-03	1.18E-08	1.68E-07	0.00E+00	0.18	0.00	0
564187.1	4182359.82	9.93E-04	1.41E-05	1.41E-05	1.02E-03	1.18E-08	1.67E-07	0.00E+00	0.18	0.00	0
564207.1	4182359.82	9.82E-04	1.40E-05	1.40E-05	1.01E-03	1.16E-08	1.65E-07	0.00E+00	0.18	0.00	0
564227.1	4182359.82	9.70E-04	1.38E-05	1.38E-05	9.97E-04	1.15E-08	1.63E-07	0.00E+00	0.17	0.00	0
564247.1	4182359.82	9.55E-04	1.36E-05	1.36E-05	9.82E-04	1.13E-08	1.61E-07	0.00E+00	0.17	0.00	0
564267.1	4182359.82	9.35E-04	1.33E-05	1.33E-05	9.62E-04	1.11E-08	1.57E-07	0.00E+00	0.17	0.00	0
564287.1	4182359.82	9.18E-04	1.31E-05	1.31E-05	9.44E-04	1.09E-08	1.55E-07	0.00E+00	0.17	0.00	0
564307.1	4182359.82	9.04E-04	1.29E-05	1.29E-05	9.30E-04	1.07E-08	1.52E-07	0.00E+00	0.16	0.00	0
564327.1	4182359.82	8.95E-04	1.27E-05	1.27E-05	9.20E-04	1.06E-08	1.51E-07	0.00E+00	0.16	0.00	0
564347.1	4182359.82	8.89E-04	1.26E-05	1.26E-05	9.14E-04	1.05E-08	1.50E-07	0.00E+00	0.16	0.00	0
564367.1	4182359.82	8.85E-04	1.26E-05	1.26E-05	9.11E-04	1.05E-08	1.49E-07	0.00E+00	0.16	0.00	0
564387.1	4182359.82	8.83E-04	1.26E-05	1.26E-05	9.08E-04	1.05E-08	1.49E-07	0.00E+00	0.16	0.00	0
564407.1	4182359.82	8.80E-04	1.25E-05	1.25E-05	9.05E-04	1.04E-08	1.48E-07	0.00E+00	0.16	0.00	0
564427.1	4182359.82	8.75E-04	1.24E-05	1.24E-05	8.99E-04	1.04E-08	1.47E-07	0.00E+00	0.16	0.00	0

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

		Construction Emissions			
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total
564447.1	4182359.82	8.66E-04	1.23E-05	1.23E-05	8.90E-04
564467.1	4182359.82	8.53E-04	1.21E-05	1.21E-05	8.78E-04
564487.1	4182359.82	8.39E-04	1.19E-05	1.19E-05	8.63E-04
564507.1	4182359.82	8.24E-04	1.17E-05	1.17E-05	8.48E-04
564527.1	4182359.82	8.10E-04	1.15E-05	1.15E-05	8.33E-04
564547.1	4182359.82	7.95E-04	1.13E-05	1.13E-05	8.18E-04
564567.1	4182359.82	7.81E-04	1.11E-05	1.11E-05	8.03E-04
564587.1	4182359.82	7.67E-04	1.09E-05	1.09E-05	7.89E-04
564607.1	4182359.82	7.53E-04	1.07E-05	1.07E-05	7.74E-04
564627.1	4182359.82	7.39E-04	1.05E-05	1.05E-05	7.60E-04
564647.1	4182359.82	7.25E-04	1.03E-05	1.03E-05	7.46E-04
564667.1	4182359.82	7.14E-04	1.02E-05	1.02E-05	7.34E-04
564687.1	4182359.82	7.05E-04	1.00E-05	1.00E-05	7.25E-04
564707.1	4182359.82	7.01E-04	9.97E-06	9.97E-06	7.21E-04
564727.1	4182359.82	7.00E-04	9.97E-06	9.97E-06	7.20E-04
564747.1	4182359.82	7.04E-04	1.00E-05	1.00E-05	7.24E-04
564767.1	4182359.82	7.10E-04	1.01E-05	1.01E-05	7.30E-04
564787.1	4182359.82	7.19E-04	1.02E-05	1.02E-05	7.40E-04
564807.1	4182359.82	7.31E-04	1.04E-05	1.04E-05	7.52E-04
564827.1	4182359.82	7.44E-04	1.06E-05	1.06E-05	7.66E-04
564847.1	4182359.82	7.59E-04	1.08E-05	1.08E-05	7.81E-04
564867.1	4182359.82	7.75E-04	1.10E-05	1.10E-05	7.97E-04
564887.1	4182359.82	7.91E-04	1.13E-05	1.13E-05	8.13E-04
564907.1	4182359.82	8.07E-04	1.15E-05	1.15E-05	8.30E-04
564927.1	4182359.82	8.24E-04	1.17E-05	1.17E-05	8.47E-04
564947.1	4182359.82	8.39E-04	1.19E-05	1.19E-05	8.63E-04
564967.1	4182359.82	8.53E-04	1.21E-05	1.21E-05	8.78E-04
564987.1	4182359.82	8.66E-04	1.23E-05	1.23E-05	8.91E-04
565007.1	4182359.82	8.77E-04	1.25E-05	1.25E-05	9.02E-04
565027.1	4182359.82	8.86E-04	1.26E-05	1.26E-05	9.11E-04
564047.1	4182379.82	9.51E-04	1.35E-05	1.35E-05	9.78E-04
564067.1	4182379.82	9.80E-04	1.39E-05	1.39E-05	1.01E-03
564087.1	4182379.82	1.01E-03	1.43E-05	1.43E-05	1.04E-03
564107.1	4182379.82	1.03E-03	1.47E-05	1.47E-05	1.06E-03
564127.1	4182379.82	1.05E-03	1.50E-05	1.50E-05	1.08E-03
564147.1	4182379.82	1.07E-03	1.52E-05	1.52E-05	1.10E-03
564167.1	4182379.82	1.08E-03	1.54E-05	1.54E-05	1.11E-03
564187.1	4182379.82	1.08E-03	1.53E-05	1.53E-05	1.11E-03
564207.1	4182379.82	1.07E-03	1.52E-05	1.52E-05	1.10E-03
564227.1	4182379.82	1.06E-03	1.51E-05	1.51E-05	1.09E-03
564247.1	4182379.82	1.05E-03	1.49E-05	1.49E-05	1.08E-03
564267.1	4182379.82	1.03E-03	1.46E-05	1.46E-05	1.06E-03
564287.1	4182379.82	1.01E-03	1.43E-05	1.43E-05	1.04E-03
564307.1	4182379.82	9.92E-04	1.41E-05	1.41E-05	1.02E-03
564327.1	4182379.82	9.79E-04	1.39E-05	1.39E-05	1.01E-03
564347.1	4182379.82	9.69E-04	1.38E-05	1.38E-05	9.97E-04
564367.1	4182379.82	9.63E-04	1.37E-05	1.37E-05	9.90E-04
564387.1	4182379.82	9.58E-04	1.36E-05	1.36E-05	9.85E-04
564407.1	4182379.82	9.53E-04	1.36E-05	1.36E-05	9.80E-04
564427.1	4182379.82	9.47E-04	1.35E-05	1.35E-05	9.74E-04
564447.1	4182379.82	9.38E-04	1.33E-05	1.33E-05	9.64E-04
564467.1	4182379.82	9.25E-04	1.32E-05	1.32E-05	9.51E-04
564487.1	4182379.82	9.10E-04	1.30E-05	1.30E-05	9.36E-04
564507.1	4182379.82	8.94E-04	1.27E-05	1.27E-05	9.20E-04
564527.1	4182379.82	8.78E-04	1.25E-05	1.25E-05	9.03E-04
564547.1	4182379.82	8.62E-04	1.23E-05	1.23E-05	8.87E-04
564567.1	4182379.82	8.46E-04	1.20E-05	1.20E-05	8.70E-04
564587.1	4182379.82	8.31E-04	1.18E-05	1.18E-05	8.54E-04
564607.1	4182379.82	8.15E-04	1.16E-05	1.16E-05	8.39E-04
564627.1	4182379.82	8.01E-04	1.14E-05	1.14E-05	8.23E-04
564647.1	4182379.82	7.87E-04	1.12E-05	1.12E-05	8.10E-04
564667.1	4182379.82	7.77E-04	1.11E-05	1.11E-05	7.99E-04
564687.1	4182379.82	7.70E-04	1.10E-05	1.10E-05	7.92E-04
564707.1	4182379.82	7.68E-04	1.09E-05	1.09E-05	7.90E-04
564727.1	4182379.82	7.71E-04	1.10E-05	1.10E-05	7.93E-04
564747.1	4182379.82	7.78E-04	1.11E-05	1.11E-05	8.00E-04
564767.1	4182379.82	7.89E-04	1.12E-05	1.12E-05	8.11E-04
564787.1	4182379.82	8.02E-04	1.14E-05	1.14E-05	8.25E-04
564807.1	4182379.82	8.18E-04	1.16E-05	1.16E-05	8.41E-04
564827.1	4182379.82	8.35E-04	1.19E-05	1.19E-05	8.59E-04
564847.1	4182379.82	8.54E-04	1.21E-05	1.21E-05	8.78E-04
564867.1	4182379.82	8.72E-04	1.24E-05	1.24E-05	8.97E-04
564887.1	4182379.82	8.91E-04	1.27E-05	1.27E-05	9.17E-04
564907.1	4182379.82	9.10E-04	1.29E-05	1.29E-05	9.36E-04
564927.1	4182379.82	9.27E-04	1.32E-05	1.32E-05	9.54E-04
564947.1	4182379.82	9.43E-04	1.34E-05	1.34E-05	9.70E-04
564967.1	4182379.82	9.58E-04	1.36E-05	1.36E-05	9.85E-04
564987.1	4182379.82	9.70E-04	1.38E-05	1.38E-05	9.97E-04
565007.1	4182379.82	9.79E-04	1.39E-05	1.39E-05	1.01E-03
565027.1	4182379.82	9.86E-04	1.40E-05	1.40E-05	1.01E-03
564047.1	4182399.82	9.88E-04	1.41E-05	1.41E-05	1.02E-03
564067.1	4182399.82	1.02E-03	1.46E-05	1.46E-05	1.05E-03
564087.1	4182399.82	1.06E-03	1.50E-05	1.50E-05	1.09E-03
564107.1	4182399.82	1.09E-03	1.55E-05	1.55E-05	1.12E-03
564127.1	4182399.82	1.12E-03	1.59E-05	1.59E-05	1.15E-03
564147.1	4182399.82	1.15E-03	1.63E-05	1.63E-05	1.18E-03
564167.1	4182399.82	1.16E-03	1.66E-05	1.66E-05	1.20E-03
564187.1	4182399.82	1.17E-03	1.66E-05	1.66E-05	1.20E-03
564207.1	4182399.82	1.16E-03	1.65E-05	1.65E-05	1.20E-03
564227.1	4182399.82	1.16E-03	1.65E-05	1.65E-05	1.20E-03
564247.1	4182399.82	1.15E-03	1.64E-05	1.64E-05	1.18E-03
564267.1	4182399.82	1.13E-03	1.61E-05	1.61E-05	1.16E-03
564287.1	4182399.82	1.11E-03	1.58E-05	1.58E-05	1.14E-03
564307.1	4182399.82	1.09E-03	1.56E-05	1.56E-05	1.12E-03
564327.1	4182399.82	1.08E-03	1.53E-05	1.53E-05	1.11E-03
564347.1	4182399.82	1.06E-03	1.51E-05	1.51E-05	1.09E-03
564367.1	4182399.82	1.05E-03	1.50E-05	1.50E-05	1.08E-03
564387.1	4182399.82	1.05E-03	1.49E-05	1.49E-05	1.07E-03
564407.1	4182399.82	1.04E-03	1.48E-05	1.48E-05	1.07E-03
564427.1	4182399.82	1.03E-03	1.47E-05	1.47E-05	1.06E-03
564447.1	4182399.82	1.02E-03	1.45E-05	1.45E-05	1.05E-03
564467.1	4182399.82	1.01E-03	1.43E-05	1.43E-05	1.04E-03
564487.1	4182399.82	9.92E-04	1.41E-05	1.41E-05	1.02E-03
564507.1	4182399.82	9.74E-04	1.39E-05	1.39E-05	1.00E-03
564527.1	4182399.82	9.56E-04	1.36E-05	1.36E-05	9.83E-04
564547.1	4182399.82	9.38E-04	1.34E-05	1.34E-05	9.65E-04
564567.1	4182399.82	9.21E-04	1.31E-05	1.31E-05	9.47E-04
564587.1	4182399.82	9.04E-04	1.29E-05	1.29E-05	9.30E-04
564607.1	4182399.82	8.88E-04	1.26E-05	1.26E-05	9.13E-04
564627.1	4182399.82	8.73E-04	1.24E-05	1.24E-05	8.98E-04
564647.1	4182399.82	8.60E-04	1.22E-05	1.22E-05	8.85E-04
564667.1	4182399.82	8.52E-04	1.21E-05	1.21E-05	8.76E-04
564687.1	4182399.82	8.48E-04	1.21E-05	1.21E-05	8.72E-04

Risk Calculation Part 2, $\sum R1*C_{DPM}$ 12

				HI	
3rd Trimester	0<2	2<16	Total	C_{DPM}/REL	
1.03E-08	1.46E-07	0.00E+00	0.16	0.00	0
1.01E-08	1.44E-07	0.00E+00	0.15	0.00	0
9.95E-09	1.41E-07	0.00E+00	0.15	0.00	0
9.77E-09	1.39E-07	0.00E+00	0.15	0.00	0
9.60E-09	1.36E-07	0.00E+00	0.15	0.00	0
9.43E-09	1.34E-07	0.00E+00	0.14	0.00	0
9.26E-09	1.32E-07	0.00E+00	0.14	0.00	0
9.09E-09	1.29E-07	0.00E+00	0.14	0.00	0
8.92E-09	1.27E-07	0.00E+00	0.14	0.00	0
8.76E-09	1.24E-07	0.00E+00	0.13	0.00	0
8.60E-09	1.22E-07	0.00E+00	0.13	0.00	0
8.46E-09	1.20E-07	0.00E+00	0.13	0.00	0
8.36E-09	1.19E-07	0.00E+00	0.13	0.00	0
8.31E-09	1.18E-07	0.00E+00	0.13	0.00	0
8.30E-09	1.18E-07	0.00E+00	0.13	0.00	0
8.34E-09	1.18E-07	0.00E+00	0.13	0.00	0
8.42E-09	1.20E-07	0.00E+00	0.13	0.00	0
8.53E-09	1.21E-07	0.00E+00	0.13	0.00	0
8.67E-09	1.23E-07	0.00E+00	0.13	0.00	0
8.83E-09	1.25E-07	0.00E+00	0.13	0.00	0
9.00E-09	1.28E-07	0.00E+00	0.14	0.00	0
9.19E-09	1.30E-07	0.00E+00	0.14	0.00	0
9.38E-09	1.33E-07	0.00E+00	0.14	0.00	0
9.57E-09	1.36E-07	0.00E+00	0.15	0.00	0
9.76E-09	1.39E-07	0.00E+00	0.15	0.00	0
9.95E-09	1.41E-07	0.00E+00	0.15	0.00	0
1.01E-08	1.44E-07	0.00E+00	0.15	0.00	0
1.03E-08	1.46E-07	0.00E+00	0.16	0.00	0
1.04E-08	1.48E-07	0.00E+00	0.16	0.00	0
1.05E-08	1.49E-07	0.00E+00	0.16	0.00	0
1.13E-08	1.60E-07	0.00E+00	0.17	0.00	0
1.16E-08	1.65E-07	0.00E+00	0.18	0.00	0
1.19E-08	1.70E-07	0.00E+00	0.18	0.00	0
1.22E-08	1.74E-07	0.00E+00	0.19	0.00	0
1.25E-08	1.77E-07	0.00E+00	0.19	0.00	0
1.27E-08	1.80E-07	0.00E+00	0.19	0.00	0
1.28E-08	1.82E-07	0.00E+00	0.20	0.00	0
1.27E-08	1.81E-07	0.00E+00	0.19	0.00	0
1.27E-08	1.80E-07	0.00E+00	0.19	0.00	0
1.26E-08	1.78E-07	0.00E+00	0.19	0.00	0
1.24E-08	1.76E-07	0.00E+00	0.19	0.00	0
1.22E-08	1.73E-07	0.00E+00	0.19	0.00	0
1.20E-08	1.70E-07	0.00E+00	0.18	0.00	0
1.18E-08	1.67E-07	0.00E+00	0.18	0.00	0
1.16E-08	1.65E-07	0.00E+00	0.18	0.00	0
1.15E-08	1.63E-07	0.00E+00	0.17	0.00	0
1.14E-08	1.62E-07	0.00E+00	0.17	0.00	0
1.14E-08	1.61E-07	0.00E+00	0.17	0.00	0
1.13E-08	1.60E-07	0.00E+00	0.17	0.00	0
1.12E-08	1.59E-07	0.00E+00	0.17	0.00	0
1.11E-08	1.58E-07	0.00E+00	0.17	0.00	0
1.10E-08	1.56E-07	0.00E+00	0.17	0.00	0
1.08E-08	1.53E-07	0.00E+00	0.16	0.00	0
1.06E-08	1.51E-07	0.00E+00	0.16	0.00	0
1.04E-08	1.48E-07	0.00E+00	0.16	0.00	0
1.02E-08	1.45E-07	0.00E+00	0.16	0.00	0
1.00E-08	1.42E-07	0.00E+00	0.15	0.00	0
9.85E-09	1.40E-07	0.00E+00	0.15	0.00	0
9.67E-09	1.37E-07	0.00E+00	0.15	0.00	0
9.49E-09	1.35E-07	0.00E+00	0.14	0.00	0
9.33E-09	1.33E-07	0.00E+00	0.14	0.00	0
9.21E-09	1.31E-07	0.00E+00	0.14	0.00	0
9.13E-09	1.30E-07	0.00E+00	0.14	0.00	0
9.11E-09	1.29E-07	0.00E+00	0.14	0.00	0
9.14E-09	1.30E-07	0.00E+00	0.14	0.00	0
9.23E-09	1.31E-07	0.00E+00	0.14	0.00	0
9.35E-09	1.33E-07	0.00E+00	0.14	0.00	0
9.51E-09	1.35E-07	0.00E+00	0.14	0.00	0
9.70E-09	1.38E-07	0.00E+00	0.15	0.00	0
9.90E-09	1.41E-07	0.00E+00	0.15	0.00	0
1.01E-08	1.44E-07	0.00E+00	0.15	0.00	0
1.03E-08	1.47E-07	0.00E+00	0.16	0.00	0
1.06E-08	1.50E-07	0.00E+00	0.16	0.00	0
1.08E-08	1.53E-07	0.00E+00	0.16	0.00	0
1.10E-08	1.56E-07	0.00E+00	0.17	0.00	0
1.12E-08	1.59E-07	0.00E+00	0.17	0.00	0
1.14E-08	1.61E-07	0.00E+00	0.17	0.00	0
1.15E-08	1.63E-07	0.00E+00	0.17	0.00	0
1.16E-08	1.65E-07	0.00E+00	0.18	0.00	0
1.17E-08	1.66E-07	0.00E+00	0.18	0.00	0
1.17E-08	1.66E-07	0.00E+00	0.18	0.00	0
1.21E-08	1.72E-07	0.00E+00	0.18	0.00	0
1.25E-08	1.78E-07	0.00E+00	0.19	0.00	0
1.29E-08	1.83E-07	0.00E+00	0.20	0.00	0
1.33E-08	1.88E-07	0.00E+00	0.20	0.00	0
1.36E-08	1.93E-07	0.00E+00	0.21	0.00	0
1.38E-08	1.96E-07	0.00E+00	0.21	0.00	0
1.38E-08	1.96E-07	0.00E+00	0.21	0.00	0
1.38E-08	1.96E-07	0.00E+00	0.21	0.00	0
1.38E-08	1.96E-07	0.00E+00	0.21	0.00	0
1.36E-08	1.94E-07	0.00E+00	0.21	0.00	0
1.34E-08	1.91E-07	0.00E+00	0.20	0.00	0
1.32E-08	1.87E-07	0.00E+00	0.20	0.00	0
1.30E-08	1.84E-07	0.00E+00	0.20	0.00	0
1.28E-08	1.81E-07	0.00E+00	0.19	0.00	0
1.26E-08	1.79E-07	0.00E+00	0.19	0.00	0
1.25E-08	1.77E-07	0.00E+00	0.19	0.00	0
1.24E-08	1.76E-07	0.00E+00	0.19	0.00	0
1.23E-08	1.75E-07	0.00E+00	0.19	0.00	0
1.22E-08	1.74E-07	0.00E+00	0.19	0.00	0
1.21E-08	1.72E-07	0.00E+00	0.18	0.00	0
1.19E-08	1.70E-07	0.00E+00	0.18	0.00	0
1.18E-08	1.67E-07	0.00E+00	0.18	0.00	0
1.15E-08	1.64E-07	0.00E+00	0.18	0.00	0
1.13E-08	1.61E-07	0.00E+00	0.17	0.00	0
1.11E-08	1.58E-07	0.00E+00	0.17	0.00	0
1.09E-08	1.55E-07	0.00E+00	0.17	0.00	0
1.07E-08	1.52E-07	0.00E+00	0.16	0.00	0
1.05E-08	1.49E-07	0.00E+00	0.16	0.00	0
1.03E-08	1.47E-07	0.00E+00	0.16	0.00	0
1.02E-08	1.45E-07	0.00E+00	0.16	0.00	0
1.01E-08	1.43E-07	0.00E+00	0.15	0.00	0
1.01E-08	1.43E-07	0.00E+00	0.15	0.00	0

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

		Construction Emissions			
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total
564707.1	4182399.82	8.50E-04	1.21E-05	1.21E-05	8.74E-04
564727.1	4182399.82	8.57E-04	1.22E-05	1.22E-05	8.82E-04
564747.1	4182399.82	8.69E-04	1.24E-05	1.24E-05	8.94E-04
564767.1	4182399.82	8.85E-04	1.26E-05	1.26E-05	9.10E-04
564787.1	4182399.82	9.04E-04	1.29E-05	1.29E-05	9.30E-04
564807.1	4182399.82	9.24E-04	1.32E-05	1.32E-05	9.51E-04
564827.1	4182399.82	9.46E-04	1.35E-05	1.35E-05	9.73E-04
564847.1	4182399.82	9.68E-04	1.38E-05	1.38E-05	9.95E-04
564867.1	4182399.82	9.90E-04	1.41E-05	1.41E-05	1.02E-03
564887.1	4182399.82	1.01E-03	1.44E-05	1.44E-05	1.04E-03
564907.1	4182399.82	1.03E-03	1.47E-05	1.47E-05	1.06E-03
564927.1	4182399.82	1.05E-03	1.49E-05	1.49E-05	1.08E-03
564947.1	4182399.82	1.06E-03	1.52E-05	1.52E-05	1.09E-03
564967.1	4182399.82	1.08E-03	1.53E-05	1.53E-05	1.11E-03
564987.1	4182399.82	1.09E-03	1.55E-05	1.55E-05	1.12E-03
565007.1	4182399.82	1.09E-03	1.56E-05	1.56E-05	1.13E-03
565027.1	4182399.82	1.10E-03	1.56E-05	1.56E-05	1.13E-03
564047.1	4182419.82	1.02E-03	1.46E-05	1.46E-05	1.05E-03
564067.1	4182419.82	1.06E-03	1.51E-05	1.51E-05	1.09E-03
564087.1	4182419.82	1.10E-03	1.57E-05	1.57E-05	1.13E-03
564107.1	4182419.82	1.14E-03	1.63E-05	1.63E-05	1.18E-03
564127.1	4182419.82	1.19E-03	1.69E-05	1.69E-05	1.22E-03
564147.1	4182419.82	1.22E-03	1.73E-05	1.73E-05	1.25E-03
564167.1	4182419.82	1.25E-03	1.77E-05	1.77E-05	1.28E-03
564187.1	4182419.82	1.26E-03	1.80E-05	1.80E-05	1.30E-03
564207.1	4182419.82	1.27E-03	1.81E-05	1.81E-05	1.31E-03
564227.1	4182419.82	1.28E-03	1.81E-05	1.81E-05	1.31E-03
564247.1	4182419.82	1.27E-03	1.80E-05	1.80E-05	1.30E-03
564267.1	4182419.82	1.25E-03	1.78E-05	1.78E-05	1.29E-03
564287.1	4182419.82	1.23E-03	1.75E-05	1.75E-05	1.27E-03
564307.1	4182419.82	1.21E-03	1.72E-05	1.72E-05	1.24E-03
564327.1	4182419.82	1.19E-03	1.70E-05	1.70E-05	1.23E-03
564347.1	4182419.82	1.18E-03	1.67E-05	1.67E-05	1.21E-03
564367.1	4182419.82	1.16E-03	1.65E-05	1.65E-05	1.19E-03
564387.1	4182419.82	1.15E-03	1.63E-05	1.63E-05	1.18E-03
564407.1	4182419.82	1.14E-03	1.62E-05	1.62E-05	1.17E-03
564427.1	4182419.82	1.13E-03	1.61E-05	1.61E-05	1.16E-03
564447.1	4182419.82	1.12E-03	1.59E-05	1.59E-05	1.15E-03
564467.1	4182419.82	1.10E-03	1.57E-05	1.57E-05	1.13E-03
564487.1	4182419.82	1.09E-03	1.55E-05	1.55E-05	1.12E-03
564507.1	4182419.82	1.07E-03	1.52E-05	1.52E-05	1.10E-03
564527.1	4182419.82	1.05E-03	1.49E-05	1.49E-05	1.08E-03
564547.1	4182419.82	1.03E-03	1.46E-05	1.46E-05	1.06E-03
564567.1	4182419.82	1.01E-03	1.43E-05	1.43E-05	1.04E-03
564587.1	4182419.82	9.90E-04	1.41E-05	1.41E-05	1.02E-03
564607.1	4182419.82	9.73E-04	1.38E-05	1.38E-05	1.00E-03
564627.1	4182419.82	9.58E-04	1.36E-05	1.36E-05	9.86E-04
564647.1	4182419.82	9.47E-04	1.35E-05	1.35E-05	9.74E-04
564667.1	4182419.82	9.42E-04	1.34E-05	1.34E-05	9.69E-04
564687.1	4182419.82	9.42E-04	1.34E-05	1.34E-05	9.69E-04
564707.1	4182419.82	9.50E-04	1.35E-05	1.35E-05	9.77E-04
564727.1	4182419.82	9.63E-04	1.37E-05	1.37E-05	9.91E-04
564747.1	4182419.82	9.82E-04	1.40E-05	1.40E-05	1.01E-03
564767.1	4182419.82	1.00E-03	1.43E-05	1.43E-05	1.03E-03
564787.1	4182419.82	1.03E-03	1.46E-05	1.46E-05	1.06E-03
564807.1	4182419.82	1.05E-03	1.50E-05	1.50E-05	1.08E-03
564827.1	4182419.82	1.08E-03	1.54E-05	1.54E-05	1.11E-03
564847.1	4182419.82	1.11E-03	1.57E-05	1.57E-05	1.14E-03
564867.1	4182419.82	1.13E-03	1.61E-05	1.61E-05	1.16E-03
564887.1	4182419.82	1.15E-03	1.64E-05	1.64E-05	1.19E-03
564907.1	4182419.82	1.17E-03	1.67E-05	1.67E-05	1.21E-03
564927.1	4182419.82	1.19E-03	1.69E-05	1.69E-05	1.22E-03
564947.1	4182419.82	1.20E-03	1.71E-05	1.71E-05	1.24E-03
564967.1	4182419.82	1.21E-03	1.73E-05	1.73E-05	1.25E-03
564987.1	4182419.82	1.22E-03	1.74E-05	1.74E-05	1.25E-03
565007.1	4182419.82	1.22E-03	1.74E-05	1.74E-05	1.26E-03
565027.1	4182419.82	1.22E-03	1.74E-05	1.74E-05	1.26E-03
564047.1	4182439.82	1.06E-03	1.50E-05	1.50E-05	1.09E-03
564067.1	4182439.82	1.10E-03	1.57E-05	1.57E-05	1.13E-03
564087.1	4182439.82	1.15E-03	1.64E-05	1.64E-05	1.18E-03
564107.1	4182439.82	1.20E-03	1.70E-05	1.70E-05	1.23E-03
564127.1	4182439.82	1.24E-03	1.77E-05	1.77E-05	1.28E-03
564147.1	4182439.82	1.29E-03	1.84E-05	1.84E-05	1.33E-03
564167.1	4182439.82	1.33E-03	1.89E-05	1.89E-05	1.37E-03
564187.1	4182439.82	1.36E-03	1.93E-05	1.93E-05	1.40E-03
564207.1	4182439.82	1.38E-03	1.97E-05	1.97E-05	1.42E-03
564227.1	4182439.82	1.39E-03	1.98E-05	1.98E-05	1.43E-03
564247.1	4182439.82	1.39E-03	1.98E-05	1.98E-05	1.43E-03
564267.1	4182439.82	1.38E-03	1.97E-05	1.97E-05	1.42E-03
564287.1	4182439.82	1.37E-03	1.94E-05	1.94E-05	1.41E-03
564307.1	4182439.82	1.35E-03	1.92E-05	1.92E-05	1.38E-03
564327.1	4182439.82	1.33E-03	1.89E-05	1.89E-05	1.36E-03
564347.1	4182439.82	1.31E-03	1.86E-05	1.86E-05	1.34E-03
564367.1	4182439.82	1.29E-03	1.84E-05	1.84E-05	1.33E-03
564387.1	4182439.82	1.27E-03	1.81E-05	1.81E-05	1.31E-03
564407.1	4182439.82	1.26E-03	1.79E-05	1.79E-05	1.29E-03
564427.1	4182439.82	1.24E-03	1.77E-05	1.77E-05	1.28E-03
564447.1	4182439.82	1.23E-03	1.75E-05	1.75E-05	1.26E-03
564467.1	4182439.82	1.21E-03	1.73E-05	1.73E-05	1.25E-03
564487.1	4182439.82	1.20E-03	1.70E-05	1.70E-05	1.23E-03
564507.1	4182439.82	1.17E-03	1.67E-05	1.67E-05	1.21E-03
564527.1	4182439.82	1.15E-03	1.64E-05	1.64E-05	1.18E-03
564547.1	4182439.82	1.13E-03	1.61E-05	1.61E-05	1.16E-03
564567.1	4182439.82	1.11E-03	1.58E-05	1.58E-05	1.14E-03
564587.1	4182439.82	1.09E-03	1.55E-05	1.55E-05	1.12E-03
564607.1	4182439.82	1.07E-03	1.53E-05	1.53E-05	1.10E-03
564627.1	4182439.82	1.06E-03	1.51E-05	1.51E-05	1.09E-03
564647.1	4182439.82	1.05E-03	1.50E-05	1.50E-05	1.08E-03
564667.1	4182439.82	1.05E-03	1.50E-05	1.50E-05	1.08E-03
564687.1	4182439.82	1.06E-03	1.51E-05	1.51E-05	1.09E-03
564707.1	4182439.82	1.07E-03	1.53E-05	1.53E-05	1.11E-03
564727.1	4182439.82	1.10E-03	1.56E-05	1.56E-05	1.13E-03
564747.1	4182439.82	1.12E-03	1.60E-05	1.60E-05	1.16E-03
564767.1	4182439.82	1.15E-03	1.64E-05	1.64E-05	1.19E-03
564787.1	4182439.82	1.18E-03	1.69E-05	1.69E-05	1.22E-03
564807.1	4182439.82	1.22E-03	1.73E-05	1.73E-05	1.25E-03
564827.1	4182439.82	1.25E-03	1.77E-05	1.77E-05	1.28E-03
564847.1	4182439.82	1.27E-03	1.81E-05	1.81E-05	1.31E-03
564867.1	4182439.82	1.30E-03	1.85E-05	1.85E-05	1.34E-03
564887.1	4182439.82	1.32E-03	1.88E-05	1.88E-05	1.36E-03
564907.1	4182439.82	1.34E-03	1.91E-05	1.91E-05	1.38E-03
564927.1	4182439.82	1.35E-03	1.93E-05	1.93E-05	1.39E-03
564947.1	4182439.82	1.36E-03	1.94E-05	1.94E-05	1.40E-03

Risk Calculation Part 2, $\sum R1*C_{DPM}$ 12

				HI
3rd Trimester	0<2	2<16	Total	C_{DPM}/REL
1.01E-08	1.43E-07	0.00E+00	0.15	0.00 0
1.02E-08	1.44E-07	0.00E+00	0.15	0.00 0
1.03E-08	1.46E-07	0.00E+00	0.16	0.00 0
1.05E-08	1.49E-07	0.00E+00	0.16	0.00 0
1.07E-08	1.52E-07	0.00E+00	0.16	0.00 0
1.10E-08	1.56E-07	0.00E+00	0.17	0.00 0
1.12E-08	1.59E-07	0.00E+00	0.17	0.00 0
1.15E-08	1.63E-07	0.00E+00	0.17	0.00 0
1.17E-08	1.67E-07	0.00E+00	0.18	0.00 0
1.20E-08	1.70E-07	0.00E+00	0.18	0.00 0
1.22E-08	1.74E-07	0.00E+00	0.19	0.00 0
1.24E-08	1.77E-07	0.00E+00	0.19	0.00 0
1.26E-08	1.79E-07	0.00E+00	0.19	0.00 0
1.28E-08	1.81E-07	0.00E+00	0.19	0.00 0
1.29E-08	1.83E-07	0.00E+00	0.20	0.00 0
1.30E-08	1.84E-07	0.00E+00	0.20	0.00 0
1.30E-08	1.85E-07	0.00E+00	0.20	0.00 0
1.21E-08	1.72E-07	0.00E+00	0.18	0.00 0
1.26E-08	1.79E-07	0.00E+00	0.19	0.00 0
1.31E-08	1.86E-07	0.00E+00	0.20	0.00 0
1.36E-08	1.93E-07	0.00E+00	0.21	0.00 0
1.41E-08	2.00E-07	0.00E+00	0.21	0.00 0
1.45E-08	2.05E-07	0.00E+00	0.22	0.00 0
1.48E-08	2.10E-07	0.00E+00	0.22	0.00 0
1.50E-08	2.13E-07	0.00E+00	0.23	0.00 0
1.51E-08	2.14E-07	0.00E+00	0.23	0.00 0
1.51E-08	2.15E-07	0.00E+00	0.23	0.00 0
1.50E-08	2.13E-07	0.00E+00	0.23	0.00 0
1.48E-08	2.11E-07	0.00E+00	0.23	0.00 0
1.46E-08	2.07E-07	0.00E+00	0.22	0.00 0
1.44E-08	2.04E-07	0.00E+00	0.22	0.00 0
1.41E-08	2.01E-07	0.00E+00	0.21	0.00 0
1.39E-08	1.98E-07	0.00E+00	0.21	0.00 0
1.38E-08	1.95E-07	0.00E+00	0.21	0.00 0
1.36E-08	1.93E-07	0.00E+00	0.21	0.00 0
1.35E-08	1.92E-07	0.00E+00	0.21	0.00 0
1.34E-08	1.90E-07	0.00E+00	0.20	0.00 0
1.32E-08	1.88E-07	0.00E+00	0.20	0.00 0
1.31E-08	1.86E-07	0.00E+00	0.20	0.00 0
1.29E-08	1.83E-07	0.00E+00	0.20	0.00 0
1.26E-08	1.80E-07	0.00E+00	0.19	0.00 0
1.24E-08	1.76E-07	0.00E+00	0.19	0.00 0
1.22E-08	1.73E-07	0.00E+00	0.19	0.00 0
1.19E-08	1.70E-07	0.00E+00	0.18	0.00 0
1.17E-08	1.67E-07	0.00E+00	0.18	0.00 0
1.15E-08	1.64E-07	0.00E+00	0.18	0.00 0
1.14E-08	1.61E-07	0.00E+00	0.17	0.00 0
1.12E-08	1.60E-07	0.00E+00	0.17	0.00 0
1.12E-08	1.59E-07	0.00E+00	0.17	0.00 0
1.12E-08	1.59E-07	0.00E+00	0.17	0.00 0
1.13E-08	1.60E-07	0.00E+00	0.17	0.00 0
1.14E-08	1.62E-07	0.00E+00	0.17	0.00 0
1.16E-08	1.65E-07	0.00E+00	0.18	0.00 0
1.19E-08	1.69E-07	0.00E+00	0.18	0.00 0
1.22E-08	1.73E-07	0.00E+00	0.19	0.00 0
1.25E-08	1.78E-07	0.00E+00	0.19	0.00 0
1.28E-08	1.82E-07	0.00E+00	0.19	0.00 0
1.31E-08	1.86E-07	0.00E+00	0.20	0.00 0
1.34E-08	1.90E-07	0.00E+00	0.20	0.00 0
1.37E-08	1.94E-07	0.00E+00	0.21	0.00 0
1.39E-08	1.98E-07	0.00E+00	0.21	0.00 0
1.41E-08	2.00E-07	0.00E+00	0.21	0.00 0
1.43E-08	2.03E-07	0.00E+00	0.22	0.00 0
1.44E-08	2.04E-07	0.00E+00	0.22	0.00 0
1.45E-08	2.05E-07	0.00E+00	0.22	0.00 0
1.45E-08	2.06E-07	0.00E+00	0.22	0.00 0
1.45E-08	2.05E-07	0.00E+00	0.22	0.00 0
1.25E-08	1.78E-07	0.00E+00	0.19	0.00 0
1.31E-08	1.86E-07	0.00E+00	0.20	0.00 0
1.36E-08	1.94E-07	0.00E+00	0.21	0.00 0
1.42E-08	2.01E-07	0.00E+00	0.22	0.00 0
1.47E-08	2.09E-07	0.00E+00	0.22	0.00 0
1.53E-08	2.17E-07	0.00E+00	0.23	0.00 0
1.58E-08	2.24E-07	0.00E+00	0.24	0.00 0
1.61E-08	2.29E-07	0.00E+00	0.24	0.00 0
1.64E-08	2.33E-07	0.00E+00	0.25	0.00 0
1.65E-08	2.34E-07	0.00E+00	0.25	0.00 0
1.65E-08	2.34E-07	0.00E+00	0.25	0.00 0
1.64E-08	2.33E-07	0.00E+00	0.25	0.00 0
1.62E-08	2.30E-07	0.00E+00	0.25	0.00 0
1.60E-08	2.27E-07	0.00E+00	0.24	0.00 0
1.57E-08	2.23E-07	0.00E+00	0.24	0.00 0
1.55E-08	2.20E-07	0.00E+00	0.24	0.00 0
1.53E-08	2.17E-07	0.00E+00	0.23	0.00 0
1.51E-08	2.14E-07	0.00E+00	0.23	0.00 0
1.49E-08	2.12E-07	0.00E+00	0.23	0.00 0
1.47E-08	2.09E-07	0.00E+00	0.22	0.00 0
1.46E-08	2.07E-07	0.00E+00	0.22	0.00 0
1.44E-08	2.04E-07	0.00E+00	0.22	0.00 0
1.42E-08	2.01E-07	0.00E+00	0.22	0.00 0
1.39E-08	1.98E-07	0.00E+00	0.21	0.00 0
1.37E-08	1.94E-07	0.00E+00	0.21	0.00 0
1.34E-08	1.90E-07	0.00E+00	0.20	0.00 0
1.32E-08	1.87E-07	0.00E+00	0.20	0.00 0
1.29E-08	1.84E-07	0.00E+00	0.20	0.00 0
1.27E-08	1.81E-07	0.00E+00	0.19	0.00 0
1.26E-08	1.79E-07	0.00E+00	0.19	0.00 0
1.25E-08	1.77E-07	0.00E+00	0.19	0.00 0
1.25E-08	1.77E-07	0.00E+00	0.19	0.00 0
1.26E-08	1.78E-07	0.00E+00	0.19	0.00 0
1.27E-08	1.81E-07	0.00E+00	0.19	0.00 0
1.30E-08	1.85E-07	0.00E+00	0.20	0.00 0
1.33E-08	1.89E-07	0.00E+00	0.20	0.00 0
1.37E-08	1.94E-07	0.00E+00	0.21	0.00 0
1.40E-08	1.99E-07	0.00E+00	0.21	0.00 0
1.44E-08	2.05E-07	0.00E+00	0.22	0.00 0
1.48E-08	2.10E-07	0.00E+00	0.22	0.00 0
1.51E-08	2.14E-07	0.00E+00	0.23	0.00 0
1.54E-08	2.19E-07	0.00E+00	0.23	0.00 0
1.57E-08	2.22E-07	0.00E+00	0.24	0.00 0
1.59E-08	2.25E-07	0.00E+00	0.24	0.00 0
1.60E-08	2.28E-07	0.00E+00	0.24	0.00 0
1.62E-08	2.29E-07	0.00E+00	0.25	0.00 0

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

		Construction Emissions			
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total
564967.1	4182439.82	1.37E-03	1.94E-05	1.94E-05	1.41E-03
564987.1	4182439.82	1.37E-03	1.94E-05	1.94E-05	1.41E-03
565007.1	4182439.82	1.36E-03	1.94E-05	1.94E-05	1.40E-03
565027.1	4182439.82	1.35E-03	1.93E-05	1.93E-05	1.39E-03
564047.1	4182459.82	1.09E-03	1.55E-05	1.55E-05	1.12E-03
564067.1	4182459.82	1.14E-03	1.62E-05	1.62E-05	1.17E-03
564087.1	4182459.82	1.19E-03	1.70E-05	1.70E-05	1.23E-03
564107.1	4182459.82	1.25E-03	1.77E-05	1.77E-05	1.28E-03
564127.1	4182459.82	1.30E-03	1.85E-05	1.85E-05	1.34E-03
564147.1	4182459.82	1.36E-03	1.94E-05	1.94E-05	1.40E-03
564167.1	4182459.82	1.41E-03	2.01E-05	2.01E-05	1.45E-03
564187.1	4182459.82	1.46E-03	2.07E-05	2.07E-05	1.50E-03
564207.1	4182459.82	1.49E-03	2.12E-05	2.12E-05	1.53E-03
564227.1	4182459.82	1.52E-03	2.16E-05	2.16E-05	1.56E-03
564247.1	4182459.82	1.53E-03	2.18E-05	2.18E-05	1.57E-03
564267.1	4182459.82	1.53E-03	2.18E-05	2.18E-05	1.57E-03
564287.1	4182459.82	1.52E-03	2.16E-05	2.16E-05	1.56E-03
564307.1	4182459.82	1.50E-03	2.14E-05	2.14E-05	1.55E-03
564327.1	4182459.82	1.48E-03	2.11E-05	2.11E-05	1.53E-03
564347.1	4182459.82	1.46E-03	2.08E-05	2.08E-05	1.51E-03
564367.1	4182459.82	1.44E-03	2.05E-05	2.05E-05	1.48E-03
564387.1	4182459.82	1.42E-03	2.02E-05	2.02E-05	1.46E-03
564407.1	4182459.82	1.40E-03	1.99E-05	1.99E-05	1.44E-03
564427.1	4182459.82	1.38E-03	1.97E-05	1.97E-05	1.42E-03
564447.1	4182459.82	1.36E-03	1.94E-05	1.94E-05	1.40E-03
564467.1	4182459.82	1.35E-03	1.92E-05	1.92E-05	1.38E-03
564487.1	4182459.82	1.33E-03	1.89E-05	1.89E-05	1.36E-03
564507.1	4182459.82	1.30E-03	1.85E-05	1.85E-05	1.34E-03
564527.1	4182459.82	1.28E-03	1.82E-05	1.82E-05	1.31E-03
564547.1	4182459.82	1.25E-03	1.78E-05	1.78E-05	1.29E-03
564567.1	4182459.82	1.23E-03	1.75E-05	1.75E-05	1.26E-03
564587.1	4182459.82	1.21E-03	1.72E-05	1.72E-05	1.25E-03
564607.1	4182459.82	1.20E-03	1.70E-05	1.70E-05	1.23E-03
564627.1	4182459.82	1.19E-03	1.69E-05	1.69E-05	1.22E-03
564647.1	4182459.82	1.18E-03	1.69E-05	1.69E-05	1.22E-03
564667.1	4182459.82	1.19E-03	1.70E-05	1.70E-05	1.23E-03
564687.1	4182459.82	1.21E-03	1.72E-05	1.72E-05	1.24E-03
564707.1	4182459.82	1.23E-03	1.76E-05	1.76E-05	1.27E-03
564727.1	4182459.82	1.27E-03	1.80E-05	1.80E-05	1.30E-03
564747.1	4182459.82	1.30E-03	1.85E-05	1.85E-05	1.34E-03
564767.1	4182459.82	1.34E-03	1.91E-05	1.91E-05	1.38E-03
564787.1	4182459.82	1.38E-03	1.96E-05	1.96E-05	1.42E-03
564807.1	4182459.82	1.41E-03	2.01E-05	2.01E-05	1.45E-03
564827.1	4182459.82	1.45E-03	2.06E-05	2.06E-05	1.49E-03
564847.1	4182459.82	1.47E-03	2.10E-05	2.10E-05	1.52E-03
564867.1	4182459.82	1.50E-03	2.13E-05	2.13E-05	1.54E-03
564887.1	4182459.82	1.52E-03	2.16E-05	2.16E-05	1.56E-03
564907.1	4182459.82	1.53E-03	2.18E-05	2.18E-05	1.57E-03
564927.1	4182459.82	1.54E-03	2.19E-05	2.19E-05	1.58E-03
564947.1	4182459.82	1.54E-03	2.19E-05	2.19E-05	1.58E-03
564967.1	4182459.82	1.54E-03	2.19E-05	2.19E-05	1.58E-03
564987.1	4182459.82	1.53E-03	2.17E-05	2.17E-05	1.57E-03
565007.1	4182459.82	1.51E-03	2.16E-05	2.16E-05	1.56E-03
565027.1	4182459.82	1.50E-03	2.13E-05	2.13E-05	1.54E-03
564047.1	4182479.82	1.11E-03	1.58E-05	1.58E-05	1.14E-03
564067.1	4182479.82	1.17E-03	1.67E-05	1.67E-05	1.20E-03
564087.1	4182479.82	1.23E-03	1.76E-05	1.76E-05	1.27E-03
564107.1	4182479.82	1.30E-03	1.85E-05	1.85E-05	1.34E-03
564127.1	4182479.82	1.36E-03	1.94E-05	1.94E-05	1.40E-03
564147.1	4182479.82	1.43E-03	2.04E-05	2.04E-05	1.47E-03
564167.1	4182479.82	1.50E-03	2.13E-05	2.13E-05	1.54E-03
564187.1	4182479.82	1.55E-03	2.21E-05	2.21E-05	1.60E-03
564207.1	4182479.82	1.60E-03	2.28E-05	2.28E-05	1.65E-03
564227.1	4182479.82	1.65E-03	2.34E-05	2.34E-05	1.69E-03
564247.1	4182479.82	1.68E-03	2.39E-05	2.39E-05	1.72E-03
564267.1	4182479.82	1.69E-03	2.41E-05	2.41E-05	1.74E-03
564287.1	4182479.82	1.69E-03	2.41E-05	2.41E-05	1.74E-03
564307.1	4182479.82	1.68E-03	2.40E-05	2.40E-05	1.73E-03
564327.1	4182479.82	1.67E-03	2.37E-05	2.37E-05	1.71E-03
564347.1	4182479.82	1.65E-03	2.35E-05	2.35E-05	1.70E-03
564367.1	4182479.82	1.63E-03	2.32E-05	2.32E-05	1.67E-03
564387.1	4182479.82	1.60E-03	2.28E-05	2.28E-05	1.65E-03
564407.1	4182479.82	1.57E-03	2.24E-05	2.24E-05	1.62E-03
564427.1	4182479.82	1.55E-03	2.20E-05	2.20E-05	1.59E-03
564447.1	4182479.82	1.52E-03	2.17E-05	2.17E-05	1.57E-03
564467.1	4182479.82	1.50E-03	2.14E-05	2.14E-05	1.55E-03
564487.1	4182479.82	1.48E-03	2.11E-05	2.11E-05	1.52E-03
564507.1	4182479.82	1.45E-03	2.07E-05	2.07E-05	1.49E-03
564527.1	4182479.82	1.42E-03	2.03E-05	2.03E-05	1.46E-03
564547.1	4182479.82	1.40E-03	1.99E-05	1.99E-05	1.44E-03
564567.1	4182479.82	1.38E-03	1.96E-05	1.96E-05	1.41E-03
564587.1	4182479.82	1.36E-03	1.93E-05	1.93E-05	1.40E-03
564607.1	4182479.82	1.35E-03	1.92E-05	1.92E-05	1.39E-03
564627.1	4182479.82	1.34E-03	1.91E-05	1.91E-05	1.38E-03
564647.1	4182479.82	1.35E-03	1.92E-05	1.92E-05	1.39E-03
564667.1	4182479.82	1.37E-03	1.95E-05	1.95E-05	1.41E-03
564687.1	4182479.82	1.40E-03	1.99E-05	1.99E-05	1.44E-03
564707.1	4182479.82	1.44E-03	2.05E-05	2.05E-05	1.48E-03
564727.1	4182479.82	1.48E-03	2.11E-05	2.11E-05	1.53E-03
564747.1	4182479.82	1.53E-03	2.18E-05	2.18E-05	1.57E-03
564767.1	4182479.82	1.58E-03	2.24E-05	2.24E-05	1.62E-03
564787.1	4182479.82	1.62E-03	2.30E-05	2.30E-05	1.67E-03
564807.1	4182479.82	1.66E-03	2.36E-05	2.36E-05	1.70E-03
564827.1	4182479.82	1.69E-03	2.40E-05	2.40E-05	1.74E-03
564847.1	4182479.82	1.71E-03	2.44E-05	2.44E-05	1.76E-03
564867.1	4182479.82	1.73E-03	2.47E-05	2.47E-05	1.78E-03
564887.1	4182479.82	1.74E-03	2.48E-05	2.48E-05	1.79E-03
564907.1	4182479.82	1.75E-03	2.49E-05	2.49E-05	1.80E-03
564927.1	4182479.82	1.75E-03	2.49E-05	2.49E-05	1.80E-03
564947.1	4182479.82	1.74E-03	2.47E-05	2.47E-05	1.79E-03
564967.1	4182479.82	1.72E-03	2.45E-05	2.45E-05	1.77E-03
564987.1	4182479.82	1.70E-03	2.42E-05	2.42E-05	1.75E-03
565007.1	4182479.82	1.68E-03	2.39E-05	2.39E-05	1.73E-03
565027.1	4182479.82	1.65E-03	2.35E-05	2.35E-05	1.70E-03
564047.1	4182499.82	1.13E-03	1.61E-05	1.61E-05	1.16E-03
564067.1	4182499.82	1.20E-03	1.71E-05	1.71E-05	1.23E-03
564087.1	4182499.82	1.27E-03	1.81E-05	1.81E-05	1.31E-03
564107.1	4182499.82	1.34E-03	1.91E-05	1.91E-05	1.38E-03
564127.1	4182499.82	1.42E-03	2.02E-05	2.02E-05	1.46E-03
564147.1	4182499.82	1.50E-03	2.13E-05	2.13E-05	1.54E-03
564167.1	4182499.82	1.57E-03	2.24E-05	2.24E-05	1.62E-03
564187.1	4182499.82	1.65E-03	2.35E-05	2.35E-05	1.70E-03
564207.1	4182499.82	1.72E-03	2.45E-05	2.45E-05	1.77E-03

Risk Calculation Part 2, $\sum R1*C_{DPM}$ 12

				HI
3rd Trimester	0<2	2<16	Total	C_{DPM}/REL
1.62E-08	2.30E-07	0.00E+00	0.25	0.00 0
1.62E-08	2.30E-07	0.00E+00	0.25	0.00 0
1.61E-08	2.29E-07	0.00E+00	0.25	0.00 0
1.61E-08	2.28E-07	0.00E+00	0.24	0.00 0
1.29E-08	1.83E-07	0.00E+00	0.20	0.00 0
1.35E-08	1.92E-07	0.00E+00	0.21	0.00 0
1.41E-08	2.01E-07	0.00E+00	0.21	0.00 0
1.48E-08	2.10E-07	0.00E+00	0.22	0.00 0
1.54E-08	2.19E-07	0.00E+00	0.23	0.00 0
1.62E-08	2.30E-07	0.00E+00	0.25	0.00 0
1.67E-08	2.38E-07	0.00E+00	0.25	0.00 0
1.73E-08	2.45E-07	0.00E+00	0.26	0.00 0
1.77E-08	2.51E-07	0.00E+00	0.27	0.00 0
1.80E-08	2.55E-07	0.00E+00	0.27	0.00 0
1.81E-08	2.58E-07	0.00E+00	0.28	0.00 0
1.81E-08	2.58E-07	0.00E+00	0.28	0.00 0
1.80E-08	2.56E-07	0.00E+00	0.27	0.00 0
1.78E-08	2.53E-07	0.00E+00	0.27	0.00 0
1.76E-08	2.50E-07	0.00E+00	0.27	0.00 0
1.74E-08	2.46E-07	0.00E+00	0.26	0.00 0
1.71E-08	2.43E-07	0.00E+00	0.26	0.00 0
1.69E-08	2.39E-07	0.00E+00	0.26	0.00 0
1.66E-08	2.36E-07	0.00E+00	0.25	0.00 0
1.64E-08	2.32E-07	0.00E+00	0.25	0.00 0
1.62E-08	2.30E-07	0.00E+00	0.25	0.00 0
1.60E-08	2.27E-07	0.00E+00	0.24	0.00 0
1.57E-08	2.23E-07	0.00E+00	0.24	0.00 0
1.54E-08	2.19E-07	0.00E+00	0.23	0.00 0
1.51E-08	2.15E-07	0.00E+00	0.23	0.00 0
1.48E-08	2.11E-07	0.00E+00	0.23	0.00 0
1.46E-08	2.07E-07	0.00E+00	0.22	0.00 0
1.44E-08	2.04E-07	0.00E+00	0.22	0.00 0
1.42E-08	2.01E-07	0.00E+00	0.22	0.00 0
1.41E-08	2.00E-07	0.00E+00	0.21	0.00 0
1.40E-08	1.99E-07	0.00E+00	0.21	0.00 0
1.41E-08	2.01E-07	0.00E+00	0.21	0.00 0
1.43E-08	2.03E-07	0.00E+00	0.22	0.00 0
1.46E-08	2.08E-07	0.00E+00	0.22	0.00 0
1.50E-08	2.13E-07	0.00E+00	0.23	0.00 0
1.54E-08	2.19E-07	0.00E+00	0.23	0.00 0
1.59E-08	2.26E-07	0.00E+00	0.24	0.00 0
1.63E-08	2.32E-07	0.00E+00	0.25	0.00 0
1.68E-08	2.38E-07	0.00E+00	0.25	0.00 0
1.71E-08	2.43E-07	0.00E+00	0.26	0.00 0
1.75E-08	2.48E-07	0.00E+00	0.27	0.00 0
1.78E-08	2.52E-07	0.00E+00	0.27	0.00 0
1.80E-08	2.55E-07	0.00E+00	0.27	0.00 0
1.82E-08	2.58E-07	0.00E+00	0.28	0.00 0
1.82E-08	2.59E-07	0.00E+00	0.28	0.00 0
1.83E-08	2.59E-07	0.00E+00	0.28	0.00 0
1.82E-08	2.59E-07	0.00E+00	0.28	0.00 0
1.81E-08	2.57E-07	0.00E+00	0.28	0.00 0
1.80E-08	2.55E-07	0.00E+00	0.27	0.00 0
1.78E-08	2.52E-07	0.00E+00	0.27	0.00 0
1.32E-08	1.87E-07	0.00E+00	0.20	0.00 0
1.39E-08	1.97E-07	0.00E+00	0.21	0.00 0
1.46E-08	2.08E-07	0.00E+00	0.22	0.00 0
1.54E-08	2.19E-07	0.00E+00	0.23	0.00 0
1.62E-08	2.30E-07	0.00E+00	0.25	0.00 0
1.70E-08	2.41E-07	0.00E+00	0.26	0.00 0
1.77E-08	2.52E-07	0.00E+00	0.27	0.00 0
1.84E-08	2.61E-07	0.00E+00	0.28	0.00 0
1.90E-08	2.70E-07	0.00E+00	0.29	0.00 0
1.95E-08	2.77E-07	0.00E+00	0.30	0.00 0
1.99E-08	2.82E-07	0.00E+00	0.30	0.00 0
2.01E-08	2.85E-07	0.00E+00	0.30	0.00 0
2.01E-08	2.85E-07	0.00E+00	0.31	0.00 0
2.00E-08	2.83E-07	0.00E+00	0.30	0.00 0
1.98E-08	2.81E-07	0.00E+00	0.30	0.00 0
1.95E-08	2.78E-07	0.00E+00	0.30	0.00 0
1.93E-08	2.74E-07	0.00E+00	0.29	0.00 0
1.90E-08	2.70E-07	0.00E+00	0.29	0.00 0
1.87E-08	2.65E-07	0.00E+00	0.28	0.00 0
1.84E-08	2.61E-07	0.00E+00	0.28	0.00 0
1.81E-08	2.57E-07	0.00E+00	0.27	0.00 0
1.78E-08	2.53E-07	0.00E+00	0.27	0.00 0
1.76E-08	2.49E-07	0.00E+00	0.27	0.00 0
1.72E-08	2.45E-07	0.00E+00	0.26	0.00 0
1.69E-08	2.40E-07	0.00E+00	0.26	0.00 0
1.66E-08	2.35E-07	0.00E+00	0.25	0.00 0
1.63E-08	2.32E-07	0.00E+00	0.25	0.00 0
1.61E-08	2.29E-07	0.00E+00	0.24	0.00 0
1.60E-08	2.27E-07	0.00E+00	0.24	0.00 0
1.59E-08	2.26E-07	0.00E+00	0.24	0.00 0
1.60E-08	2.27E-07	0.00E+00	0.24	0.00 0
1.62E-08	2.31E-07	0.00E+00	0.25	0.00 0
1.66E-08	2.36E-07	0.00E+00	0.25	0.00 0
1.71E-08	2.42E-07	0.00E+00	0.26	0.00 0
1.76E-08	2.50E-07	0.00E+00	0.27	0.00 0
1.81E-08	2.58E-07	0.00E+00	0.28	0.00 0
1.87E-08	2.65E-07	0.00E+00	0.28	0.00 0
1.92E-08	2.73E-07	0.00E+00	0.29	0.00 0
1.96E-08	2.79E-07	0.00E+00	0.30	0.00 0
2.00E-08	2.84E-07	0.00E+00	0.30	0.00 0
2.03E-08	2.89E-07	0.00E+00	0.31	0.00 0
2.05E-08	2.92E-07	0.00E+00	0.31	0.00 0
2.07E-08	2.94E-07	0.00E+00	0.31	0.00 0
2.07E-08	2.94E-07	0.00E+00	0.32	0.00 0
2.07E-08	2.94E-07	0.00E+00	0.31	0.00 0
2.06E-08	2.92E-07	0.00E+00	0.31	0.00 0
2.04E-08	2.90E-07	0.00E+00	0.31	0.00 0
2.02E-08	2.87E-07	0.00E+00	0.31	0.00 0
1.99E-08	2.82E-07	0.00E+00	0.30	0.00 0
1.96E-08	2.78E-07	0.00E+00	0.30	0.00 0
1.34E-08	1.91E-07	0.00E+00	0.20	0.00 0
1.42E-08	2.02E-07	0.00E+00	0.22	0.00 0
1.51E-08	2.14E-07	0.00E+00	0.23	0.00 0
1.59E-08	2.26E-07	0.00E+00	0.24	0.00 0
1.68E-08	2.39E-07	0.00E+00	0.26	0.00 0
1.78E-08	2.52E-07	0.00E+00	0.27	0.00 0
1.87E-08	2.65E-07	0.00E+00	0.28	0.00 0
1.95E-08	2.78E-07	0.00E+00	0.30	0.00 0
2.04E-08	2.89E-07	0.00E+00	0.31	0.00 0

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

		Construction Emissions			
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total
564227.1	4182499.82	1.78E-03	2.53E-05	2.53E-05	1.83E-03
564247.1	4182499.82	1.83E-03	2.61E-05	2.61E-05	1.88E-03
564267.1	4182499.82	1.87E-03	2.66E-05	2.66E-05	1.92E-03
564287.1	4182499.82	1.88E-03	2.68E-05	2.68E-05	1.94E-03
564307.1	4182499.82	1.89E-03	2.69E-05	2.69E-05	1.94E-03
564327.1	4182499.82	1.88E-03	2.68E-05	2.68E-05	1.93E-03
564347.1	4182499.82	1.87E-03	2.66E-05	2.66E-05	1.92E-03
564367.1	4182499.82	1.85E-03	2.63E-05	2.63E-05	1.90E-03
564387.1	4182499.82	1.82E-03	2.59E-05	2.59E-05	1.87E-03
564407.1	4182499.82	1.79E-03	2.55E-05	2.55E-05	1.84E-03
564427.1	4182499.82	1.76E-03	2.50E-05	2.50E-05	1.81E-03
564447.1	4182499.82	1.72E-03	2.45E-05	2.45E-05	1.77E-03
564467.1	4182499.82	1.70E-03	2.41E-05	2.41E-05	1.74E-03
564487.1	4182499.82	1.67E-03	2.37E-05	2.37E-05	1.72E-03
564507.1	4182499.82	1.64E-03	2.33E-05	2.33E-05	1.68E-03
564527.1	4182499.82	1.60E-03	2.28E-05	2.28E-05	1.65E-03
564547.1	4182499.82	1.58E-03	2.24E-05	2.24E-05	1.62E-03
564567.1	4182499.82	1.55E-03	2.21E-05	2.21E-05	1.60E-03
564587.1	4182499.82	1.54E-03	2.19E-05	2.19E-05	1.59E-03
564607.1	4182499.82	1.54E-03	2.19E-05	2.19E-05	1.58E-03
564627.1	4182499.82	1.55E-03	2.20E-05	2.20E-05	1.59E-03
564647.1	4182499.82	1.57E-03	2.23E-05	2.23E-05	1.61E-03
564667.1	4182499.82	1.60E-03	2.28E-05	2.28E-05	1.65E-03
564687.1	4182499.82	1.65E-03	2.35E-05	2.35E-05	1.70E-03
564707.1	4182499.82	1.71E-03	2.43E-05	2.43E-05	1.76E-03
564727.1	4182499.82	1.77E-03	2.51E-05	2.51E-05	1.82E-03
564747.1	4182499.82	1.82E-03	2.59E-05	2.59E-05	1.88E-03
564767.1	4182499.82	1.88E-03	2.67E-05	2.67E-05	1.93E-03
564787.1	4182499.82	1.92E-03	2.73E-05	2.73E-05	1.97E-03
564807.1	4182499.82	1.95E-03	2.78E-05	2.78E-05	2.01E-03
564827.1	4182499.82	1.98E-03	2.82E-05	2.82E-05	2.04E-03
564847.1	4182499.82	2.00E-03	2.84E-05	2.84E-05	2.05E-03
564867.1	4182499.82	2.00E-03	2.85E-05	2.85E-05	2.06E-03
564887.1	4182499.82	2.00E-03	2.85E-05	2.85E-05	2.06E-03
564907.1	4182499.82	1.99E-03	2.84E-05	2.84E-05	2.05E-03
564927.1	4182499.82	1.97E-03	2.81E-05	2.81E-05	2.03E-03
564947.1	4182499.82	1.95E-03	2.78E-05	2.78E-05	2.01E-03
564967.1	4182499.82	1.92E-03	2.74E-05	2.74E-05	1.98E-03
564987.1	4182499.82	1.89E-03	2.69E-05	2.69E-05	1.94E-03
565007.1	4182499.82	1.85E-03	2.63E-05	2.63E-05	1.90E-03
565027.1	4182499.82	1.81E-03	2.57E-05	2.57E-05	1.86E-03
564047.1	4182519.82	1.15E-03	1.64E-05	1.64E-05	1.19E-03
564067.1	4182519.82	1.23E-03	1.75E-05	1.75E-05	1.26E-03
564087.1	4182519.82	1.30E-03	1.86E-05	1.86E-05	1.34E-03
564107.1	4182519.82	1.39E-03	1.97E-05	1.97E-05	1.43E-03
564127.1	4182519.82	1.47E-03	2.09E-05	2.09E-05	1.51E-03
564147.1	4182519.82	1.56E-03	2.22E-05	2.22E-05	1.60E-03
564167.1	4182519.82	1.65E-03	2.35E-05	2.35E-05	1.70E-03
564187.1	4182519.82	1.74E-03	2.48E-05	2.48E-05	1.79E-03
564207.1	4182519.82	1.83E-03	2.61E-05	2.61E-05	1.88E-03
564227.1	4182519.82	1.92E-03	2.73E-05	2.73E-05	1.97E-03
564247.1	4182519.82	1.99E-03	2.83E-05	2.83E-05	2.05E-03
564267.1	4182519.82	2.05E-03	2.92E-05	2.92E-05	2.11E-03
564287.1	4182519.82	2.10E-03	2.98E-05	2.98E-05	2.16E-03
564307.1	4182519.82	2.12E-03	3.02E-05	3.02E-05	2.18E-03
564327.1	4182519.82	2.13E-03	3.03E-05	3.03E-05	2.19E-03
564347.1	4182519.82	2.12E-03	3.02E-05	3.02E-05	2.18E-03
564367.1	4182519.82	2.11E-03	3.01E-05	3.01E-05	2.17E-03
564387.1	4182519.82	2.09E-03	2.97E-05	2.97E-05	2.15E-03
564407.1	4182519.82	2.06E-03	2.93E-05	2.93E-05	2.11E-03
564427.1	4182519.82	2.01E-03	2.87E-05	2.87E-05	2.07E-03
564447.1	4182519.82	1.97E-03	2.81E-05	2.81E-05	2.03E-03
564467.1	4182519.82	1.93E-03	2.75E-05	2.75E-05	1.99E-03
564487.1	4182519.82	1.90E-03	2.70E-05	2.70E-05	1.95E-03
564507.1	4182519.82	1.86E-03	2.65E-05	2.65E-05	1.92E-03
564527.1	4182519.82	1.83E-03	2.60E-05	2.60E-05	1.88E-03
564547.1	4182519.82	1.80E-03	2.56E-05	2.56E-05	1.85E-03
564567.1	4182519.82	1.78E-03	2.54E-05	2.54E-05	1.83E-03
564587.1	4182519.82	1.78E-03	2.53E-05	2.53E-05	1.83E-03
564607.1	4182519.82	1.79E-03	2.55E-05	2.55E-05	1.84E-03
564627.1	4182519.82	1.82E-03	2.58E-05	2.58E-05	1.87E-03
564647.1	4182519.82	1.86E-03	2.65E-05	2.65E-05	1.91E-03
564667.1	4182519.82	1.92E-03	2.73E-05	2.73E-05	1.97E-03
564687.1	4182519.82	1.99E-03	2.83E-05	2.83E-05	2.05E-03
564707.1	4182519.82	2.06E-03	2.94E-05	2.94E-05	2.12E-03
564727.1	4182519.82	2.13E-03	3.04E-05	3.04E-05	2.20E-03
564747.1	4182519.82	2.20E-03	3.13E-05	3.13E-05	2.26E-03
564767.1	4182519.82	2.25E-03	3.20E-05	3.20E-05	2.31E-03
564787.1	4182519.82	2.29E-03	3.25E-05	3.25E-05	2.35E-03
564807.1	4182519.82	2.31E-03	3.29E-05	3.29E-05	2.38E-03
564827.1	4182519.82	2.32E-03	3.31E-05	3.31E-05	2.39E-03
564847.1	4182519.82	2.32E-03	3.31E-05	3.31E-05	2.39E-03
564867.1	4182519.82	2.31E-03	3.29E-05	3.29E-05	2.38E-03
564887.1	4182519.82	2.29E-03	3.26E-05	3.26E-05	2.36E-03
564907.1	4182519.82	2.25E-03	3.20E-05	3.20E-05	2.31E-03
564927.1	4182519.82	2.19E-03	3.12E-05	3.12E-05	2.25E-03
564947.1	4182519.82	2.16E-03	3.07E-05	3.07E-05	2.22E-03
564967.1	4182519.82	2.13E-03	3.03E-05	3.03E-05	2.19E-03

Risk Calculation Part 2, $\sum R1*C_{DPM}$ 12

				HI	
3rd Trimester	0<2	2<16	Total	C_{DPM}/REL	
2.11E-08	3.00E-07	0.00E+00	0.32	0.00	0
2.17E-08	3.08E-07	0.00E+00	0.33	0.00	0
2.21E-08	3.14E-07	0.00E+00	0.34	0.00	0
2.23E-08	3.17E-07	0.00E+00	0.34	0.00	0
2.24E-08	3.18E-07	0.00E+00	0.34	0.00	0
2.23E-08	3.17E-07	0.00E+00	0.34	0.00	0
2.21E-08	3.14E-07	0.00E+00	0.34	0.00	0
2.19E-08	3.11E-07	0.00E+00	0.33	0.00	0
2.16E-08	3.07E-07	0.00E+00	0.33	0.00	0
2.12E-08	3.01E-07	0.00E+00	0.32	0.00	0
2.08E-08	2.96E-07	0.00E+00	0.32	0.00	0
2.04E-08	2.90E-07	0.00E+00	0.31	0.00	0
2.01E-08	2.85E-07	0.00E+00	0.31	0.00	0
1.98E-08	2.81E-07	0.00E+00	0.30	0.00	0
1.94E-08	2.76E-07	0.00E+00	0.30	0.00	0
1.90E-08	2.70E-07	0.00E+00	0.29	0.00	0
1.87E-08	2.65E-07	0.00E+00	0.28	0.00	0
1.84E-08	2.62E-07	0.00E+00	0.28	0.00	0
1.83E-08	2.60E-07	0.00E+00	0.28	0.00	0
1.82E-08	2.59E-07	0.00E+00	0.28	0.00	0
1.83E-08	2.60E-07	0.00E+00	0.28	0.00	0
1.86E-08	2.64E-07	0.00E+00	0.28	0.00	0
1.90E-08	2.70E-07	0.00E+00	0.29	0.00	0
1.96E-08	2.78E-07	0.00E+00	0.30	0.00	0
2.02E-08	2.87E-07	0.00E+00	0.31	0.00	0
2.09E-08	2.97E-07	0.00E+00	0.32	0.00	0
2.16E-08	3.07E-07	0.00E+00	0.33	0.00	0
2.22E-08	3.16E-07	0.00E+00	0.34	0.00	0
2.28E-08	3.23E-07	0.00E+00	0.35	0.00	0
2.32E-08	3.29E-07	0.00E+00	0.35	0.00	0
2.35E-08	3.33E-07	0.00E+00	0.36	0.00	0
2.37E-08	3.36E-07	0.00E+00	0.36	0.00	0
2.38E-08	3.37E-07	0.00E+00	0.36	0.00	0
2.38E-08	3.37E-07	0.00E+00	0.36	0.00	0
2.36E-08	3.36E-07	0.00E+00	0.36	0.00	0
2.34E-08	3.32E-07	0.00E+00	0.36	0.00	0
2.31E-08	3.28E-07	0.00E+00	0.35	0.00	0
2.28E-08	3.24E-07	0.00E+00	0.35	0.00	0
2.24E-08	3.18E-07	0.00E+00	0.34	0.00	0
2.19E-08	3.11E-07	0.00E+00	0.33	0.00	0
2.14E-08	3.04E-07	0.00E+00	0.33	0.00	0
1.37E-08	1.94E-07	0.00E+00	0.21	0.00	0
1.45E-08	2.06E-07	0.00E+00	0.22	0.00	0
1.55E-08	2.20E-07	0.00E+00	0.24	0.00	0
1.64E-08	2.33E-07	0.00E+00	0.25	0.00	0
1.74E-08	2.48E-07	0.00E+00	0.27	0.00	0
1.85E-08	2.62E-07	0.00E+00	0.28	0.00	0
1.96E-08	2.78E-07	0.00E+00	0.30	0.00	0
2.06E-08	2.93E-07	0.00E+00	0.31	0.00	0
2.17E-08	3.08E-07	0.00E+00	0.33	0.00	0
2.27E-08	3.23E-07	0.00E+00	0.35	0.00	0
2.36E-08	3.35E-07	0.00E+00	0.36	0.00	0
2.43E-08	3.46E-07	0.00E+00	0.37	0.00	0
2.49E-08	3.53E-07	0.00E+00	0.38	0.00	0
2.51E-08	3.57E-07	0.00E+00	0.38	0.00	0
2.52E-08	3.58E-07	0.00E+00	0.38	0.00	0
2.52E-08	3.58E-07	0.00E+00	0.38	0.00	0
2.50E-08	3.56E-07	0.00E+00	0.38	0.00	0
2.48E-08	3.52E-07	0.00E+00	0.38	0.00	0
2.44E-08	3.46E-07	0.00E+00	0.37	0.00	0
2.39E-08	3.39E-07	0.00E+00	0.36	0.00	0
2.34E-08	3.32E-07	0.00E+00	0.36	0.00	0
2.29E-08	3.26E-07	0.00E+00	0.35	0.00	0
2.25E-08	3.20E-07	0.00E+00	0.34	0.00	0
2.21E-08	3.14E-07	0.00E+00	0.34	0.00	0
2.17E-08	3.08E-07	0.00E+00	0.33	0.00	0
2.13E-08	3.03E-07	0.00E+00	0.32	0.00	0
2.11E-08	3.00E-07	0.00E+00	0.32	0.00	0
2.11E-08	2.99E-07	0.00E+00	0.32	0.00	0
2.12E-08	3.01E-07	0.00E+00	0.32	0.00	0
2.15E-08	3.06E-07	0.00E+00	0.33	0.00	0
2.20E-08	3.13E-07	0.00E+00	0.34	0.00	0
2.27E-08	3.23E-07	0.00E+00	0.35	0.00	0
2.36E-08	3.35E-07	0.00E+00	0.36	0.00	0
2.45E-08	3.47E-07	0.00E+00	0.37	0.00	0
2.53E-08	3.59E-07	0.00E+00	0.38	0.00	0
2.61E-08	3.70E-07	0.00E+00	0.40	0.00	0
2.67E-08	3.79E-07	0.00E+00	0.41	0.00	0
2.71E-08	3.85E-07	0.00E+00	0.41	0.00	0
2.74E-08	3.89E-07	0.00E+00	0.42	0.00	0
2.75E-08	3.91E-07	0.00E+00	0.42	0.00	0
2.75E-08	3.91E-07	0.00E+00	0.42	0.00	0
2.74E-08	3.89E-07	0.00E+00	0.42	0.00	0
2.72E-08	3.86E-07	0.00E+00	0.41	0.00	0
2.66E-08	3.78E-07	0.00E+00	0.40	0.00	0
2.60E-08	3.69E-07	0.00E+00	0.39	0.00	0
2.56E-08	3.63E-07	0.00E+00	0.39	0.00	0
2.52E-08	3.59E-07	0.00E+00	0.38	0.00	0

Estuary Park

Residential Receptors - Unmitigated Construction Annual Average $PM_{2.5}$ Concentration

Haul Truck Trip Lengths

Source Name	One-Way Trip Length (mi)		AERMOD Modeled Length (m)		Modeled Fraction	
	Haul	Vendor	Haul	Vendor	Haul	Vendor
T_WB	20	7.3	776	776	0.024	0.066
T_EB	20	7.3	776	776	0.024	0.066

AERMOD Variable Emissions

HROFDY	24	hr/day

			Total Unmitigated $PM_{2.5}$ (tons)		
Phase Name	Start Date	End Date	Onsite Offroad	Haul Truck	Vendor Truck
Construction	1/1/2024	6/3/2025	1.85E-01	9.80E-03	9.80E-03

			Total Unmitigated $PM_{2.5}$ (g/s)		
Phase Name	Start Date	End Date	CSTN	T_WB	T_EB
Construction	1/1/2024	6/3/2025	5.31E-03	2.54E-05	2.54E-05

	Risk	UTM X	UTM Y	
Particulate Risk	0.11	564467.1	4182859.82	Residence

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

		Construction Emissions				
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total	
564047.1	4182339.82	3.70E-03	1.77E-05	1.77E-05	3.73E-03	0
564067.1	4182339.82	3.78E-03	1.81E-05	1.81E-05	3.81E-03	0
564087.1	4182339.82	3.85E-03	1.84E-05	1.84E-05	3.88E-03	0
564107.1	4182339.82	3.90E-03	1.87E-05	1.87E-05	3.94E-03	0
564127.1	4182339.82	3.94E-03	1.88E-05	1.88E-05	3.97E-03	0
564147.1	4182339.82	3.94E-03	1.89E-05	1.89E-05	3.98E-03	0
564167.1	4182339.82	3.92E-03	1.87E-05	1.87E-05	3.95E-03	0
564187.1	4182339.82	3.87E-03	1.85E-05	1.85E-05	3.91E-03	0
564207.1	4182339.82	3.81E-03	1.82E-05	1.82E-05	3.84E-03	0
564227.1	4182339.82	3.73E-03	1.78E-05	1.78E-05	3.77E-03	0
564247.1	4182339.82	3.66E-03	1.75E-05	1.75E-05	3.70E-03	0
564267.1	4182339.82	3.59E-03	1.72E-05	1.72E-05	3.62E-03	0
564287.1	4182339.82	3.53E-03	1.69E-05	1.69E-05	3.56E-03	0
564307.1	4182339.82	3.51E-03	1.68E-05	1.68E-05	3.54E-03	0
564327.1	4182339.82	3.48E-03	1.67E-05	1.67E-05	3.52E-03	0
564347.1	4182339.82	3.47E-03	1.66E-05	1.66E-05	3.50E-03	0
564367.1	4182339.82	3.47E-03	1.66E-05	1.66E-05	3.50E-03	0
564387.1	4182339.82	3.46E-03	1.66E-05	1.66E-05	3.50E-03	0
564407.1	4182339.82	3.45E-03	1.65E-05	1.65E-05	3.49E-03	0
564427.1	4182339.82	3.43E-03	1.64E-05	1.64E-05	3.46E-03	0
564447.1	4182339.82	3.39E-03	1.62E-05	1.62E-05	3.43E-03	0
564467.1	4182339.82	3.34E-03	1.60E-05	1.60E-05	3.37E-03	0
564487.1	4182339.82	3.29E-03	1.57E-05	1.57E-05	3.32E-03	0
564507.1	4182339.82	3.23E-03	1.54E-05	1.54E-05	3.26E-03	0
564527.1	4182339.82	3.17E-03	1.52E-05	1.52E-05	3.20E-03	0
564547.1	4182339.82	3.12E-03	1.49E-05	1.49E-05	3.15E-03	0
564567.1	4182339.82	3.06E-03	1.46E-05	1.46E-05	3.09E-03	0
564587.1	4182339.82	3.01E-03	1.44E-05	1.44E-05	3.04E-03	0
564607.1	4182339.82	2.95E-03	1.41E-05	1.41E-05	2.98E-03	0
564627.1	4182339.82	2.90E-03	1.39E-05	1.39E-05	2.92E-03	0
564647.1	4182339.82	2.84E-03	1.36E-05	1.36E-05	2.87E-03	0
564667.1	4182339.82	2.79E-03	1.34E-05	1.34E-05	2.82E-03	0
564687.1	4182339.82	2.75E-03	1.32E-05	1.32E-05	2.78E-03	0
564707.1	4182339.82	2.72E-03	1.30E-05	1.30E-05	2.75E-03	0
564727.1	4182339.82	2.71E-03	1.30E-05	1.30E-05	2.74E-03	0
564747.1	4182339.82	2.71E-03	1.30E-05	1.30E-05	2.74E-03	0
564767.1	4182339.82	2.73E-03	1.31E-05	1.31E-05	2.75E-03	0
564787.1	4182339.82	2.75E-03	1.32E-05	1.32E-05	2.78E-03	0
564807.1	4182339.82	2.79E-03	1.33E-05	1.33E-05	2.81E-03	0
564827.1	4182339.82	2.83E-03	1.35E-05	1.35E-05	2.86E-03	0
564847.1	4182339.82	2.88E-03	1.38E-05	1.38E-05	2.91E-03	0
564867.1	4182339.82	2.93E-03	1.40E-05	1.40E-05	2.96E-03	0
564887.1	4182339.82	2.99E-03	1.43E-05	1.43E-05	3.02E-03	0
564907.1	4182339.82	3.05E-03	1.46E-05	1.46E-05	3.08E-03	0
564927.1	4182339.82	3.11E-03	1.49E-05	1.49E-05	3.14E-03	0
564947.1	4182339.82	3.17E-03	1.52E-05	1.52E-05	3.20E-03	0
564967.1	4182339.82	3.23E-03	1.54E-05	1.54E-05	3.26E-03	0
564987.1	4182339.82	3.28E-03	1.57E-05	1.57E-05	3.31E-03	0
565007.1	4182339.82	3.33E-03	1.59E-05	1.59E-05	3.36E-03	0
565027.1	4182339.82	3.37E-03	1.61E-05	1.61E-05	3.40E-03	0
564047.1	4182359.82	3.86E-03	1.85E-05	1.85E-05	3.90E-03	0
564067.1	4182359.82	3.96E-03	1.90E-05	1.90E-05	4.00E-03	0
564087.1	4182359.82	4.05E-03	1.94E-05	1.94E-05	4.09E-03	0
564107.1	4182359.82	4.13E-03	1.97E-05	1.97E-05	4.17E-03	0
564127.1	4182359.82	4.19E-03	2.00E-05	2.00E-05	4.23E-03	0
564147.1	4182359.82	4.23E-03	2.02E-05	2.02E-05	4.27E-03	0
564167.1	4182359.82	4.23E-03	2.02E-05	2.02E-05	4.27E-03	0
564187.1	4182359.82	4.20E-03	2.01E-05	2.01E-05	4.24E-03	0
564207.1	4182359.82	4.15E-03	1.99E-05	1.99E-05	4.19E-03	0
564227.1	4182359.82	4.10E-03	1.96E-05	1.96E-05	4.14E-03	0
564247.1	4182359.82	4.04E-03	1.93E-05	1.93E-05	4.08E-03	0

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

		Construction Emissions				
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total	
564267.1	4182359.82	3.96E-03	1.89E-05	1.89E-05	3.99E-03	0
564287.1	4182359.82	3.88E-03	1.86E-05	1.86E-05	3.92E-03	0
564307.1	4182359.82	3.83E-03	1.83E-05	1.83E-05	3.86E-03	0
564327.1	4182359.82	3.79E-03	1.81E-05	1.81E-05	3.82E-03	0
564347.1	4182359.82	3.76E-03	1.80E-05	1.80E-05	3.80E-03	0
564367.1	4182359.82	3.75E-03	1.79E-05	1.79E-05	3.78E-03	0
564387.1	4182359.82	3.74E-03	1.79E-05	1.79E-05	3.77E-03	0
564407.1	4182359.82	3.72E-03	1.78E-05	1.78E-05	3.76E-03	0
564427.1	4182359.82	3.70E-03	1.77E-05	1.77E-05	3.73E-03	0
564447.1	4182359.82	3.66E-03	1.75E-05	1.75E-05	3.70E-03	0
564467.1	4182359.82	3.61E-03	1.73E-05	1.73E-05	3.64E-03	0
564487.1	4182359.82	3.55E-03	1.70E-05	1.70E-05	3.58E-03	0
564507.1	4182359.82	3.49E-03	1.67E-05	1.67E-05	3.52E-03	0
564527.1	4182359.82	3.42E-03	1.64E-05	1.64E-05	3.46E-03	0
564547.1	4182359.82	3.36E-03	1.61E-05	1.61E-05	3.40E-03	0
564567.1	4182359.82	3.30E-03	1.58E-05	1.58E-05	3.34E-03	0
564587.1	4182359.82	3.24E-03	1.55E-05	1.55E-05	3.28E-03	0
564607.1	4182359.82	3.18E-03	1.52E-05	1.52E-05	3.21E-03	0
564627.1	4182359.82	3.12E-03	1.49E-05	1.49E-05	3.15E-03	0
564647.1	4182359.82	3.07E-03	1.47E-05	1.47E-05	3.10E-03	0
564667.1	4182359.82	3.02E-03	1.44E-05	1.44E-05	3.05E-03	0
564687.1	4182359.82	2.98E-03	1.43E-05	1.43E-05	3.01E-03	0
564707.1	4182359.82	2.96E-03	1.42E-05	1.42E-05	2.99E-03	0
564727.1	4182359.82	2.96E-03	1.42E-05	1.42E-05	2.99E-03	0
564747.1	4182359.82	2.98E-03	1.42E-05	1.42E-05	3.00E-03	0
564767.1	4182359.82	3.00E-03	1.44E-05	1.44E-05	3.03E-03	0
564787.1	4182359.82	3.04E-03	1.46E-05	1.46E-05	3.07E-03	0
564807.1	4182359.82	3.09E-03	1.48E-05	1.48E-05	3.12E-03	0
564827.1	4182359.82	3.15E-03	1.51E-05	1.51E-05	3.18E-03	0
564847.1	4182359.82	3.21E-03	1.54E-05	1.54E-05	3.24E-03	0
564867.1	4182359.82	3.28E-03	1.57E-05	1.57E-05	3.31E-03	0
564887.1	4182359.82	3.35E-03	1.60E-05	1.60E-05	3.38E-03	0
564907.1	4182359.82	3.42E-03	1.63E-05	1.63E-05	3.45E-03	0
564927.1	4182359.82	3.48E-03	1.67E-05	1.67E-05	3.52E-03	0
564947.1	4182359.82	3.55E-03	1.70E-05	1.70E-05	3.58E-03	0
564967.1	4182359.82	3.61E-03	1.73E-05	1.73E-05	3.64E-03	0
564987.1	4182359.82	3.66E-03	1.75E-05	1.75E-05	3.70E-03	0
565007.1	4182359.82	3.71E-03	1.77E-05	1.77E-05	3.75E-03	0
565027.1	4182359.82	3.75E-03	1.79E-05	1.79E-05	3.78E-03	0
564047.1	4182379.82	4.02E-03	1.92E-05	1.92E-05	4.06E-03	0
564067.1	4182379.82	4.15E-03	1.98E-05	1.98E-05	4.18E-03	0
564087.1	4182379.82	4.26E-03	2.04E-05	2.04E-05	4.30E-03	0
564107.1	4182379.82	4.36E-03	2.09E-05	2.09E-05	4.40E-03	0
564127.1	4182379.82	4.45E-03	2.13E-05	2.13E-05	4.49E-03	0
564147.1	4182379.82	4.53E-03	2.16E-05	2.16E-05	4.57E-03	0
564167.1	4182379.82	4.58E-03	2.19E-05	2.19E-05	4.62E-03	0
564187.1	4182379.82	4.55E-03	2.18E-05	2.18E-05	4.59E-03	0
564207.1	4182379.82	4.52E-03	2.16E-05	2.16E-05	4.56E-03	0
564227.1	4182379.82	4.48E-03	2.14E-05	2.14E-05	4.52E-03	0
564247.1	4182379.82	4.43E-03	2.12E-05	2.12E-05	4.47E-03	0
564267.1	4182379.82	4.35E-03	2.08E-05	2.08E-05	4.39E-03	0
564287.1	4182379.82	4.26E-03	2.04E-05	2.04E-05	4.31E-03	0
564307.1	4182379.82	4.19E-03	2.01E-05	2.01E-05	4.23E-03	0
564327.1	4182379.82	4.14E-03	1.98E-05	1.98E-05	4.18E-03	0
564347.1	4182379.82	4.10E-03	1.96E-05	1.96E-05	4.14E-03	0
564367.1	4182379.82	4.07E-03	1.95E-05	1.95E-05	4.11E-03	0
564387.1	4182379.82	4.05E-03	1.94E-05	1.94E-05	4.09E-03	0
564407.1	4182379.82	4.03E-03	1.93E-05	1.93E-05	4.07E-03	0
564427.1	4182379.82	4.01E-03	1.92E-05	1.92E-05	4.04E-03	0
564447.1	4182379.82	3.97E-03	1.90E-05	1.90E-05	4.00E-03	0
564467.1	4182379.82	3.91E-03	1.87E-05	1.87E-05	3.95E-03	0
564487.1	4182379.82	3.85E-03	1.84E-05	1.84E-05	3.89E-03	0
564507.1	4182379.82	3.78E-03	1.81E-05	1.81E-05	3.82E-03	0
564527.1	4182379.82	3.71E-03	1.78E-05	1.78E-05	3.75E-03	0
564547.1	4182379.82	3.65E-03	1.74E-05	1.74E-05	3.68E-03	0
564567.1	4182379.82	3.58E-03	1.71E-05	1.71E-05	3.61E-03	0
564587.1	4182379.82	3.51E-03	1.68E-05	1.68E-05	3.55E-03	0
564607.1	4182379.82	3.45E-03	1.65E-05	1.65E-05	3.48E-03	0
564627.1	4182379.82	3.39E-03	1.62E-05	1.62E-05	3.42E-03	0
564647.1	4182379.82	3.33E-03	1.59E-05	1.59E-05	3.36E-03	0
564667.1	4182379.82	3.29E-03	1.57E-05	1.57E-05	3.32E-03	0
564687.1	4182379.82	3.26E-03	1.56E-05	1.56E-05	3.29E-03	0
564707.1	4182379.82	3.25E-03	1.55E-05	1.55E-05	3.28E-03	0
564727.1	4182379.82	3.26E-03	1.56E-05	1.56E-05	3.29E-03	0
564747.1	4182379.82	3.29E-03	1.57E-05	1.57E-05	3.32E-03	0
564767.1	4182379.82	3.34E-03	1.60E-05	1.60E-05	3.37E-03	0
564787.1	4182379.82	3.39E-03	1.62E-05	1.62E-05	3.43E-03	0
564807.1	4182379.82	3.46E-03	1.66E-05	1.66E-05	3.49E-03	0
564827.1	4182379.82	3.53E-03	1.69E-05	1.69E-05	3.57E-03	0
564847.1	4182379.82	3.61E-03	1.73E-05	1.73E-05	3.65E-03	0
564867.1	4182379.82	3.69E-03	1.77E-05	1.77E-05	3.73E-03	0
564887.1	4182379.82	3.77E-03	1.80E-05	1.80E-05	3.81E-03	0
564907.1	4182379.82	3.85E-03	1.84E-05	1.84E-05	3.88E-03	0
564927.1	4182379.82	3.92E-03	1.88E-05	1.88E-05	3.96E-03	0

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

		Construction Emissions				
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total	
564947.1	4182379.82	3.99E-03	1.91E-05	1.91E-05	4.03E-03	0
564967.1	4182379.82	4.05E-03	1.94E-05	1.94E-05	4.09E-03	0
564987.1	4182379.82	4.10E-03	1.96E-05	1.96E-05	4.14E-03	0
565007.1	4182379.82	4.14E-03	1.98E-05	1.98E-05	4.18E-03	0
565027.1	4182379.82	4.17E-03	2.00E-05	2.00E-05	4.21E-03	0
564047.1	4182399.82	4.18E-03	2.00E-05	2.00E-05	4.22E-03	0
564067.1	4182399.82	4.33E-03	2.07E-05	2.07E-05	4.37E-03	0
564087.1	4182399.82	4.47E-03	2.14E-05	2.14E-05	4.51E-03	0
564107.1	4182399.82	4.59E-03	2.20E-05	2.20E-05	4.64E-03	0
564127.1	4182399.82	4.73E-03	2.26E-05	2.26E-05	4.78E-03	0
564147.1	4182399.82	4.85E-03	2.32E-05	2.32E-05	4.89E-03	0
564167.1	4182399.82	4.92E-03	2.35E-05	2.35E-05	4.97E-03	0
564187.1	4182399.82	4.94E-03	2.36E-05	2.36E-05	4.98E-03	0
564207.1	4182399.82	4.92E-03	2.35E-05	2.35E-05	4.96E-03	0
564227.1	4182399.82	4.92E-03	2.35E-05	2.35E-05	4.96E-03	0
564247.1	4182399.82	4.87E-03	2.33E-05	2.33E-05	4.92E-03	0
564267.1	4182399.82	4.79E-03	2.29E-05	2.29E-05	4.84E-03	0
564287.1	4182399.82	4.70E-03	2.25E-05	2.25E-05	4.75E-03	0
564307.1	4182399.82	4.62E-03	2.21E-05	2.21E-05	4.67E-03	0
564327.1	4182399.82	4.56E-03	2.18E-05	2.18E-05	4.60E-03	0
564347.1	4182399.82	4.50E-03	2.15E-05	2.15E-05	4.54E-03	0
564367.1	4182399.82	4.46E-03	2.13E-05	2.13E-05	4.50E-03	0
564387.1	4182399.82	4.42E-03	2.12E-05	2.12E-05	4.46E-03	0
564407.1	4182399.82	4.39E-03	2.10E-05	2.10E-05	4.43E-03	0
564427.1	4182399.82	4.36E-03	2.09E-05	2.09E-05	4.40E-03	0
564447.1	4182399.82	4.32E-03	2.07E-05	2.07E-05	4.36E-03	0
564467.1	4182399.82	4.26E-03	2.04E-05	2.04E-05	4.30E-03	0
564487.1	4182399.82	4.19E-03	2.01E-05	2.01E-05	4.23E-03	0
564507.1	4182399.82	4.12E-03	1.97E-05	1.97E-05	4.16E-03	0
564527.1	4182399.82	4.04E-03	1.93E-05	1.93E-05	4.08E-03	0
564547.1	4182399.82	3.97E-03	1.90E-05	1.90E-05	4.01E-03	0
564567.1	4182399.82	3.90E-03	1.86E-05	1.86E-05	3.93E-03	0
564587.1	4182399.82	3.82E-03	1.83E-05	1.83E-05	3.86E-03	0
564607.1	4182399.82	3.76E-03	1.80E-05	1.80E-05	3.79E-03	0
564627.1	4182399.82	3.69E-03	1.77E-05	1.77E-05	3.73E-03	0
564647.1	4182399.82	3.64E-03	1.74E-05	1.74E-05	3.67E-03	0
564667.1	4182399.82	3.60E-03	1.72E-05	1.72E-05	3.64E-03	0
564687.1	4182399.82	3.59E-03	1.72E-05	1.72E-05	3.62E-03	0
564707.1	4182399.82	3.59E-03	1.72E-05	1.72E-05	3.63E-03	0
564727.1	4182399.82	3.63E-03	1.73E-05	1.73E-05	3.66E-03	0
564747.1	4182399.82	3.68E-03	1.76E-05	1.76E-05	3.71E-03	0
564767.1	4182399.82	3.74E-03	1.79E-05	1.79E-05	3.78E-03	0
564787.1	4182399.82	3.82E-03	1.83E-05	1.83E-05	3.86E-03	0
564807.1	4182399.82	3.91E-03	1.87E-05	1.87E-05	3.95E-03	0
564827.1	4182399.82	4.00E-03	1.91E-05	1.91E-05	4.04E-03	0
564847.1	4182399.82	4.09E-03	1.96E-05	1.96E-05	4.13E-03	0
564867.1	4182399.82	4.19E-03	2.00E-05	2.00E-05	4.23E-03	0
564887.1	4182399.82	4.28E-03	2.05E-05	2.05E-05	4.32E-03	0
564907.1	4182399.82	4.36E-03	2.09E-05	2.09E-05	4.40E-03	0
564927.1	4182399.82	4.44E-03	2.12E-05	2.12E-05	4.48E-03	0
564947.1	4182399.82	4.50E-03	2.15E-05	2.15E-05	4.55E-03	0
564967.1	4182399.82	4.56E-03	2.18E-05	2.18E-05	4.60E-03	0
564987.1	4182399.82	4.60E-03	2.20E-05	2.20E-05	4.64E-03	0
565007.1	4182399.82	4.63E-03	2.21E-05	2.21E-05	4.67E-03	0
565027.1	4182399.82	4.64E-03	2.22E-05	2.22E-05	4.69E-03	0
564047.1	4182419.82	4.33E-03	2.07E-05	2.07E-05	4.38E-03	0
564067.1	4182419.82	4.50E-03	2.15E-05	2.15E-05	4.55E-03	0
564087.1	4182419.82	4.67E-03	2.23E-05	2.23E-05	4.71E-03	0
564107.1	4182419.82	4.84E-03	2.31E-05	2.31E-05	4.88E-03	0
564127.1	4182419.82	5.02E-03	2.40E-05	2.40E-05	5.06E-03	0
564147.1	4182419.82	5.16E-03	2.47E-05	2.47E-05	5.21E-03	0
564167.1	4182419.82	5.27E-03	2.52E-05	2.52E-05	5.32E-03	0
564187.1	4182419.82	5.35E-03	2.56E-05	2.56E-05	5.40E-03	0
564207.1	4182419.82	5.39E-03	2.58E-05	2.58E-05	5.44E-03	0
564227.1	4182419.82	5.39E-03	2.58E-05	2.58E-05	5.45E-03	0
564247.1	4182419.82	5.36E-03	2.56E-05	2.56E-05	5.41E-03	0
564267.1	4182419.82	5.29E-03	2.53E-05	2.53E-05	5.34E-03	0
564287.1	4182419.82	5.21E-03	2.49E-05	2.49E-05	5.26E-03	0
564307.1	4182419.82	5.12E-03	2.45E-05	2.45E-05	5.17E-03	0
564327.1	4182419.82	5.04E-03	2.41E-05	2.41E-05	5.09E-03	0
564347.1	4182419.82	4.97E-03	2.38E-05	2.38E-05	5.02E-03	0
564367.1	4182419.82	4.91E-03	2.35E-05	2.35E-05	4.96E-03	0
564387.1	4182419.82	4.86E-03	2.32E-05	2.32E-05	4.91E-03	0
564407.1	4182419.82	4.81E-03	2.30E-05	2.30E-05	4.86E-03	0
564427.1	4182419.82	4.77E-03	2.28E-05	2.28E-05	4.82E-03	0
564447.1	4182419.82	4.72E-03	2.26E-05	2.26E-05	4.77E-03	0
564467.1	4182419.82	4.67E-03	2.23E-05	2.23E-05	4.71E-03	0
564487.1	4182419.82	4.59E-03	2.20E-05	2.20E-05	4.64E-03	0
564507.1	4182419.82	4.51E-03	2.16E-05	2.16E-05	4.55E-03	0
564527.1	4182419.82	4.43E-03	2.12E-05	2.12E-05	4.47E-03	0
564547.1	4182419.82	4.34E-03	2.08E-05	2.08E-05	4.38E-03	0
564567.1	4182419.82	4.26E-03	2.04E-05	2.04E-05	4.30E-03	0
564587.1	4182419.82	4.19E-03	2.00E-05	2.00E-05	4.23E-03	0
564607.1	4182419.82	4.12E-03	1.97E-05	1.97E-05	4.16E-03	0

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

		Construction Emissions				
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total	
564627.1	4182419.82	4.05E-03	1.94E-05	1.94E-05	4.09E-03	0
564647.1	4182419.82	4.01E-03	1.92E-05	1.92E-05	4.05E-03	0
564667.1	4182419.82	3.98E-03	1.91E-05	1.91E-05	4.02E-03	0
564687.1	4182419.82	3.99E-03	1.91E-05	1.91E-05	4.02E-03	0
564707.1	4182419.82	4.02E-03	1.92E-05	1.92E-05	4.06E-03	0
564727.1	4182419.82	4.08E-03	1.95E-05	1.95E-05	4.11E-03	0
564747.1	4182419.82	4.15E-03	1.99E-05	1.99E-05	4.19E-03	0
564767.1	4182419.82	4.25E-03	2.03E-05	2.03E-05	4.29E-03	0
564787.1	4182419.82	4.35E-03	2.08E-05	2.08E-05	4.39E-03	0
564807.1	4182419.82	4.46E-03	2.13E-05	2.13E-05	4.50E-03	0
564827.1	4182419.82	4.57E-03	2.19E-05	2.19E-05	4.61E-03	0
564847.1	4182419.82	4.68E-03	2.24E-05	2.24E-05	4.72E-03	0
564867.1	4182419.82	4.78E-03	2.29E-05	2.29E-05	4.83E-03	0
564887.1	4182419.82	4.88E-03	2.33E-05	2.33E-05	4.92E-03	0
564907.1	4182419.82	4.96E-03	2.37E-05	2.37E-05	5.01E-03	0
564927.1	4182419.82	5.04E-03	2.41E-05	2.41E-05	5.08E-03	0
564947.1	4182419.82	5.09E-03	2.44E-05	2.44E-05	5.14E-03	0
564967.1	4182419.82	5.13E-03	2.46E-05	2.46E-05	5.18E-03	0
564987.1	4182419.82	5.16E-03	2.47E-05	2.47E-05	5.21E-03	0
565007.1	4182419.82	5.17E-03	2.47E-05	2.47E-05	5.22E-03	0
565027.1	4182419.82	5.16E-03	2.47E-05	2.47E-05	5.21E-03	0
564047.1	4182439.82	4.47E-03	2.14E-05	2.14E-05	4.51E-03	0
564067.1	4182439.82	4.67E-03	2.23E-05	2.23E-05	4.71E-03	0
564087.1	4182439.82	4.86E-03	2.33E-05	2.33E-05	4.91E-03	0
564107.1	4182439.82	5.06E-03	2.42E-05	2.42E-05	5.11E-03	0
564127.1	4182439.82	5.26E-03	2.52E-05	2.52E-05	5.31E-03	0
564147.1	4182439.82	5.46E-03	2.61E-05	2.61E-05	5.52E-03	0
564167.1	4182439.82	5.62E-03	2.69E-05	2.69E-05	5.67E-03	0
564187.1	4182439.82	5.75E-03	2.75E-05	2.75E-05	5.80E-03	0
564207.1	4182439.82	5.84E-03	2.79E-05	2.79E-05	5.90E-03	0
564227.1	4182439.82	5.89E-03	2.82E-05	2.82E-05	5.95E-03	0
564247.1	4182439.82	5.89E-03	2.82E-05	2.82E-05	5.95E-03	0
564267.1	4182439.82	5.85E-03	2.80E-05	2.80E-05	5.91E-03	0
564287.1	4182439.82	5.78E-03	2.76E-05	2.76E-05	5.83E-03	0
564307.1	4182439.82	5.70E-03	2.72E-05	2.72E-05	5.75E-03	0
564327.1	4182439.82	5.61E-03	2.68E-05	2.68E-05	5.67E-03	0
564347.1	4182439.82	5.53E-03	2.65E-05	2.65E-05	5.58E-03	0
564367.1	4182439.82	5.46E-03	2.61E-05	2.61E-05	5.51E-03	0
564387.1	4182439.82	5.38E-03	2.58E-05	2.58E-05	5.43E-03	0
564407.1	4182439.82	5.32E-03	2.54E-05	2.54E-05	5.37E-03	0
564427.1	4182439.82	5.26E-03	2.52E-05	2.52E-05	5.31E-03	0
564447.1	4182439.82	5.20E-03	2.49E-05	2.49E-05	5.25E-03	0
564467.1	4182439.82	5.14E-03	2.46E-05	2.46E-05	5.19E-03	0
564487.1	4182439.82	5.06E-03	2.42E-05	2.42E-05	5.11E-03	0
564507.1	4182439.82	4.97E-03	2.38E-05	2.38E-05	5.01E-03	0
564527.1	4182439.82	4.87E-03	2.33E-05	2.33E-05	4.92E-03	0
564547.1	4182439.82	4.78E-03	2.29E-05	2.29E-05	4.83E-03	0
564567.1	4182439.82	4.69E-03	2.25E-05	2.25E-05	4.74E-03	0
564587.1	4182439.82	4.61E-03	2.21E-05	2.21E-05	4.66E-03	0
564607.1	4182439.82	4.54E-03	2.17E-05	2.17E-05	4.59E-03	0
564627.1	4182439.82	4.49E-03	2.15E-05	2.15E-05	4.53E-03	0
564647.1	4182439.82	4.46E-03	2.13E-05	2.13E-05	4.50E-03	0
564667.1	4182439.82	4.45E-03	2.13E-05	2.13E-05	4.49E-03	0
564687.1	4182439.82	4.48E-03	2.14E-05	2.14E-05	4.53E-03	0
564707.1	4182439.82	4.55E-03	2.17E-05	2.17E-05	4.59E-03	0
564727.1	4182439.82	4.64E-03	2.22E-05	2.22E-05	4.68E-03	0
564747.1	4182439.82	4.75E-03	2.27E-05	2.27E-05	4.80E-03	0
564767.1	4182439.82	4.88E-03	2.33E-05	2.33E-05	4.92E-03	0
564787.1	4182439.82	5.01E-03	2.40E-05	2.40E-05	5.06E-03	0
564807.1	4182439.82	5.14E-03	2.46E-05	2.46E-05	5.19E-03	0
564827.1	4182439.82	5.27E-03	2.52E-05	2.52E-05	5.32E-03	0
564847.1	4182439.82	5.39E-03	2.58E-05	2.58E-05	5.44E-03	0
564867.1	4182439.82	5.49E-03	2.63E-05	2.63E-05	5.55E-03	0
564887.1	4182439.82	5.59E-03	2.67E-05	2.67E-05	5.64E-03	0
564907.1	4182439.82	5.67E-03	2.71E-05	2.71E-05	5.72E-03	0
564927.1	4182439.82	5.72E-03	2.74E-05	2.74E-05	5.78E-03	0
564947.1	4182439.82	5.76E-03	2.76E-05	2.76E-05	5.82E-03	0
564967.1	4182439.82	5.78E-03	2.77E-05	2.77E-05	5.84E-03	0
564987.1	4182439.82	5.78E-03	2.77E-05	2.77E-05	5.84E-03	0
565007.1	4182439.82	5.76E-03	2.76E-05	2.76E-05	5.82E-03	0
565027.1	4182439.82	5.73E-03	2.74E-05	2.74E-05	5.78E-03	0
564047.1	4182459.82	4.60E-03	2.20E-05	2.20E-05	4.64E-03	0
564067.1	4182459.82	4.82E-03	2.30E-05	2.30E-05	4.86E-03	0
564087.1	4182459.82	5.05E-03	2.41E-05	2.41E-05	5.09E-03	0
564107.1	4182459.82	5.27E-03	2.52E-05	2.52E-05	5.32E-03	0
564127.1	4182459.82	5.50E-03	2.63E-05	2.63E-05	5.56E-03	0
564147.1	4182459.82	5.77E-03	2.76E-05	2.76E-05	5.82E-03	0
564167.1	4182459.82	5.97E-03	2.86E-05	2.86E-05	6.03E-03	0
564187.1	4182459.82	6.16E-03	2.95E-05	2.95E-05	6.22E-03	0
564207.1	4182459.82	6.31E-03	3.02E-05	3.02E-05	6.37E-03	0
564227.1	4182459.82	6.42E-03	3.07E-05	3.07E-05	6.48E-03	0
564247.1	4182459.82	6.47E-03	3.10E-05	3.10E-05	6.53E-03	0
564267.1	4182459.82	6.47E-03	3.10E-05	3.10E-05	6.53E-03	0
564287.1	4182459.82	6.43E-03	3.08E-05	3.08E-05	6.49E-03	0

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

		Construction Emissions				
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total	
564307.1	4182459.82	6.36E-03	3.04E-05	3.04E-05	6.42E-03	0
564327.1	4182459.82	6.28E-03	3.00E-05	3.00E-05	6.34E-03	0
564347.1	4182459.82	6.19E-03	2.96E-05	2.96E-05	6.25E-03	0
564367.1	4182459.82	6.10E-03	2.92E-05	2.92E-05	6.16E-03	0
564387.1	4182459.82	6.01E-03	2.88E-05	2.88E-05	6.07E-03	0
564407.1	4182459.82	5.92E-03	2.83E-05	2.83E-05	5.98E-03	0
564427.1	4182459.82	5.84E-03	2.79E-05	2.79E-05	5.90E-03	0
564447.1	4182459.82	5.77E-03	2.76E-05	2.76E-05	5.82E-03	0
564467.1	4182459.82	5.69E-03	2.72E-05	2.72E-05	5.75E-03	0
564487.1	4182459.82	5.61E-03	2.68E-05	2.68E-05	5.66E-03	0
564507.1	4182459.82	5.50E-03	2.63E-05	2.63E-05	5.56E-03	0
564527.1	4182459.82	5.40E-03	2.58E-05	2.58E-05	5.45E-03	0
564547.1	4182459.82	5.29E-03	2.53E-05	2.53E-05	5.35E-03	0
564567.1	4182459.82	5.20E-03	2.49E-05	2.49E-05	5.25E-03	0
564587.1	4182459.82	5.12E-03	2.45E-05	2.45E-05	5.17E-03	0
564607.1	4182459.82	5.06E-03	2.42E-05	2.42E-05	5.11E-03	0
564627.1	4182459.82	5.02E-03	2.40E-05	2.40E-05	5.07E-03	0
564647.1	4182459.82	5.01E-03	2.40E-05	2.40E-05	5.06E-03	0
564667.1	4182459.82	5.04E-03	2.41E-05	2.41E-05	5.09E-03	0
564687.1	4182459.82	5.11E-03	2.44E-05	2.44E-05	5.16E-03	0
564707.1	4182459.82	5.22E-03	2.50E-05	2.50E-05	5.27E-03	0
564727.1	4182459.82	5.35E-03	2.56E-05	2.56E-05	5.41E-03	0
564747.1	4182459.82	5.51E-03	2.64E-05	2.64E-05	5.56E-03	0
564767.1	4182459.82	5.67E-03	2.71E-05	2.71E-05	5.72E-03	0
564787.1	4182459.82	5.83E-03	2.79E-05	2.79E-05	5.89E-03	0
564807.1	4182459.82	5.98E-03	2.86E-05	2.86E-05	6.04E-03	0
564827.1	4182459.82	6.12E-03	2.93E-05	2.93E-05	6.17E-03	0
564847.1	4182459.82	6.24E-03	2.98E-05	2.98E-05	6.30E-03	0
564867.1	4182459.82	6.34E-03	3.03E-05	3.03E-05	6.40E-03	0
564887.1	4182459.82	6.42E-03	3.07E-05	3.07E-05	6.48E-03	0
564907.1	4182459.82	6.48E-03	3.10E-05	3.10E-05	6.54E-03	0
564927.1	4182459.82	6.51E-03	3.11E-05	3.11E-05	6.57E-03	0
564947.1	4182459.82	6.52E-03	3.12E-05	3.12E-05	6.58E-03	0
564967.1	4182459.82	6.50E-03	3.11E-05	3.11E-05	6.56E-03	0
564987.1	4182459.82	6.46E-03	3.09E-05	3.09E-05	6.52E-03	0
565007.1	4182459.82	6.41E-03	3.06E-05	3.06E-05	6.47E-03	0
565027.1	4182459.82	6.33E-03	3.03E-05	3.03E-05	6.40E-03	0
564047.1	4182479.82	4.70E-03	2.25E-05	2.25E-05	4.75E-03	0
564067.1	4182479.82	4.95E-03	2.37E-05	2.37E-05	5.00E-03	0
564087.1	4182479.82	5.22E-03	2.50E-05	2.50E-05	5.27E-03	0
564107.1	4182479.82	5.49E-03	2.63E-05	2.63E-05	5.55E-03	0
564127.1	4182479.82	5.77E-03	2.76E-05	2.76E-05	5.82E-03	0
564147.1	4182479.82	6.05E-03	2.90E-05	2.90E-05	6.11E-03	0
564167.1	4182479.82	6.32E-03	3.03E-05	3.03E-05	6.39E-03	0
564187.1	4182479.82	6.57E-03	3.14E-05	3.14E-05	6.63E-03	0
564207.1	4182479.82	6.79E-03	3.25E-05	3.25E-05	6.85E-03	0
564227.1	4182479.82	6.97E-03	3.33E-05	3.33E-05	7.03E-03	0
564247.1	4182479.82	7.09E-03	3.39E-05	3.39E-05	7.16E-03	0
564267.1	4182479.82	7.16E-03	3.42E-05	3.42E-05	7.22E-03	0
564287.1	4182479.82	7.16E-03	3.43E-05	3.43E-05	7.23E-03	0
564307.1	4182479.82	7.12E-03	3.41E-05	3.41E-05	7.19E-03	0
564327.1	4182479.82	7.05E-03	3.37E-05	3.37E-05	7.12E-03	0
564347.1	4182479.82	6.97E-03	3.34E-05	3.34E-05	7.04E-03	0
564367.1	4182479.82	6.88E-03	3.29E-05	3.29E-05	6.95E-03	0
564387.1	4182479.82	6.78E-03	3.24E-05	3.24E-05	6.84E-03	0
564407.1	4182479.82	6.66E-03	3.19E-05	3.19E-05	6.73E-03	0
564427.1	4182479.82	6.55E-03	3.13E-05	3.13E-05	6.61E-03	0
564447.1	4182479.82	6.45E-03	3.09E-05	3.09E-05	6.51E-03	0
564467.1	4182479.82	6.36E-03	3.04E-05	3.04E-05	6.42E-03	0
564487.1	4182479.82	6.26E-03	3.00E-05	3.00E-05	6.32E-03	0
564507.1	4182479.82	6.15E-03	2.94E-05	2.94E-05	6.21E-03	0
564527.1	4182479.82	6.03E-03	2.88E-05	2.88E-05	6.08E-03	0
564547.1	4182479.82	5.91E-03	2.83E-05	2.83E-05	5.97E-03	0
564567.1	4182479.82	5.82E-03	2.78E-05	2.78E-05	5.87E-03	0
564587.1	4182479.82	5.75E-03	2.75E-05	2.75E-05	5.80E-03	0
564607.1	4182479.82	5.70E-03	2.73E-05	2.73E-05	5.75E-03	0
564627.1	4182479.82	5.69E-03	2.72E-05	2.72E-05	5.74E-03	0
564647.1	4182479.82	5.72E-03	2.73E-05	2.73E-05	5.77E-03	0
564667.1	4182479.82	5.79E-03	2.77E-05	2.77E-05	5.85E-03	0
564687.1	4182479.82	5.92E-03	2.83E-05	2.83E-05	5.98E-03	0
564707.1	4182479.82	6.08E-03	2.91E-05	2.91E-05	6.14E-03	0
564727.1	4182479.82	6.27E-03	3.00E-05	3.00E-05	6.33E-03	0
564747.1	4182479.82	6.47E-03	3.10E-05	3.10E-05	6.54E-03	0
564767.1	4182479.82	6.67E-03	3.19E-05	3.19E-05	6.73E-03	0
564787.1	4182479.82	6.85E-03	3.28E-05	3.28E-05	6.92E-03	0
564807.1	4182479.82	7.01E-03	3.35E-05	3.35E-05	7.08E-03	0
564827.1	4182479.82	7.14E-03	3.42E-05	3.42E-05	7.21E-03	0
564847.1	4182479.82	7.25E-03	3.47E-05	3.47E-05	7.32E-03	0
564867.1	4182479.82	7.33E-03	3.51E-05	3.51E-05	7.40E-03	0
564887.1	4182479.82	7.38E-03	3.53E-05	3.53E-05	7.45E-03	0
564907.1	4182479.82	7.40E-03	3.54E-05	3.54E-05	7.47E-03	0
564927.1	4182479.82	7.39E-03	3.53E-05	3.53E-05	7.46E-03	0
564947.1	4182479.82	7.35E-03	3.52E-05	3.52E-05	7.42E-03	0
564967.1	4182479.82	7.28E-03	3.48E-05	3.48E-05	7.35E-03	0

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

		Construction Emissions				
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total	
564987.1	4182479.82	7.20E-03	3.44E-05	3.44E-05	7.27E-03	0
565007.1	4182479.82	7.10E-03	3.39E-05	3.39E-05	7.16E-03	0
565027.1	4182479.82	6.98E-03	3.34E-05	3.34E-05	7.04E-03	0
564047.1	4182499.82	4.79E-03	2.29E-05	2.29E-05	4.84E-03	0
564067.1	4182499.82	5.07E-03	2.43E-05	2.43E-05	5.12E-03	0
564087.1	4182499.82	5.37E-03	2.57E-05	2.57E-05	5.43E-03	0
564107.1	4182499.82	5.69E-03	2.72E-05	2.72E-05	5.74E-03	0
564127.1	4182499.82	6.01E-03	2.87E-05	2.87E-05	6.07E-03	0
564147.1	4182499.82	6.34E-03	3.03E-05	3.03E-05	6.40E-03	0
564167.1	4182499.82	6.66E-03	3.19E-05	3.19E-05	6.73E-03	0
564187.1	4182499.82	6.97E-03	3.34E-05	3.34E-05	7.04E-03	0
564207.1	4182499.82	7.27E-03	3.48E-05	3.48E-05	7.34E-03	0
564227.1	4182499.82	7.53E-03	3.60E-05	3.60E-05	7.61E-03	0
564247.1	4182499.82	7.75E-03	3.71E-05	3.71E-05	7.82E-03	0
564267.1	4182499.82	7.90E-03	3.78E-05	3.78E-05	7.97E-03	0
564287.1	4182499.82	7.97E-03	3.81E-05	3.81E-05	8.05E-03	0
564307.1	4182499.82	7.99E-03	3.82E-05	3.82E-05	8.06E-03	0
564327.1	4182499.82	7.96E-03	3.81E-05	3.81E-05	8.03E-03	0
564347.1	4182499.82	7.90E-03	3.78E-05	3.78E-05	7.97E-03	0
564367.1	4182499.82	7.82E-03	3.74E-05	3.74E-05	7.89E-03	0
564387.1	4182499.82	7.71E-03	3.69E-05	3.69E-05	7.78E-03	0
564407.1	4182499.82	7.57E-03	3.62E-05	3.62E-05	7.64E-03	0
564427.1	4182499.82	7.42E-03	3.55E-05	3.55E-05	7.50E-03	0
564447.1	4182499.82	7.29E-03	3.49E-05	3.49E-05	7.36E-03	0
564467.1	4182499.82	7.17E-03	3.43E-05	3.43E-05	7.24E-03	0
564487.1	4182499.82	7.06E-03	3.38E-05	3.38E-05	7.12E-03	0
564507.1	4182499.82	6.93E-03	3.31E-05	3.31E-05	6.99E-03	0
564527.1	4182499.82	6.79E-03	3.25E-05	3.25E-05	6.85E-03	0
564547.1	4182499.82	6.67E-03	3.19E-05	3.19E-05	6.73E-03	0
564567.1	4182499.82	6.58E-03	3.15E-05	3.15E-05	6.64E-03	0
564587.1	4182499.82	6.52E-03	3.12E-05	3.12E-05	6.59E-03	0
564607.1	4182499.82	6.51E-03	3.11E-05	3.11E-05	6.57E-03	0
564627.1	4182499.82	6.54E-03	3.13E-05	3.13E-05	6.60E-03	0
564647.1	4182499.82	6.63E-03	3.17E-05	3.17E-05	6.70E-03	0
564667.1	4182499.82	6.78E-03	3.25E-05	3.25E-05	6.85E-03	0
564687.1	4182499.82	6.98E-03	3.34E-05	3.34E-05	7.05E-03	0
564707.1	4182499.82	7.22E-03	3.45E-05	3.45E-05	7.29E-03	0
564727.1	4182499.82	7.47E-03	3.57E-05	3.57E-05	7.54E-03	0
564747.1	4182499.82	7.71E-03	3.69E-05	3.69E-05	7.79E-03	0
564767.1	4182499.82	7.93E-03	3.79E-05	3.79E-05	8.01E-03	0
564787.1	4182499.82	8.12E-03	3.88E-05	3.88E-05	8.20E-03	0
564807.1	4182499.82	8.27E-03	3.95E-05	3.95E-05	8.34E-03	0
564827.1	4182499.82	8.37E-03	4.01E-05	4.01E-05	8.45E-03	0
564847.1	4182499.82	8.45E-03	4.04E-05	4.04E-05	8.53E-03	0
564867.1	4182499.82	8.48E-03	4.06E-05	4.06E-05	8.56E-03	0
564887.1	4182499.82	8.47E-03	4.05E-05	4.05E-05	8.56E-03	0
564907.1	4182499.82	8.43E-03	4.03E-05	4.03E-05	8.51E-03	0
564927.1	4182499.82	8.34E-03	3.99E-05	3.99E-05	8.42E-03	0
564947.1	4182499.82	8.25E-03	3.95E-05	3.95E-05	8.33E-03	0
564967.1	4182499.82	8.13E-03	3.89E-05	3.89E-05	8.21E-03	0
564987.1	4182499.82	7.99E-03	3.82E-05	3.82E-05	8.06E-03	0
565007.1	4182499.82	7.83E-03	3.74E-05	3.74E-05	7.90E-03	0
565027.1	4182499.82	7.65E-03	3.66E-05	3.66E-05	7.72E-03	0
564047.1	4182519.82	4.88E-03	2.33E-05	2.33E-05	4.92E-03	0
564067.1	4182519.82	5.19E-03	2.48E-05	2.48E-05	5.24E-03	0
564087.1	4182519.82	5.52E-03	2.64E-05	2.64E-05	5.57E-03	0
564107.1	4182519.82	5.86E-03	2.80E-05	2.80E-05	5.92E-03	0
564127.1	4182519.82	6.22E-03	2.98E-05	2.98E-05	6.28E-03	0
564147.1	4182519.82	6.59E-03	3.15E-05	3.15E-05	6.66E-03	0
564167.1	4182519.82	6.98E-03	3.34E-05	3.34E-05	7.04E-03	0
564187.1	4182519.82	7.36E-03	3.52E-05	3.52E-05	7.43E-03	0
564207.1	4182519.82	7.74E-03	3.70E-05	3.70E-05	7.82E-03	0
564227.1	4182519.82	8.10E-03	3.88E-05	3.88E-05	8.18E-03	0
564247.1	4182519.82	8.42E-03	4.03E-05	4.03E-05	8.50E-03	0
564267.1	4182519.82	8.68E-03	4.15E-05	4.15E-05	8.77E-03	0
564287.1	4182519.82	8.87E-03	4.24E-05	4.24E-05	8.95E-03	0
564307.1	4182519.82	8.97E-03	4.29E-05	4.29E-05	9.05E-03	0
564327.1	4182519.82	9.00E-03	4.30E-05	4.30E-05	9.08E-03	0
564347.1	4182519.82	8.98E-03	4.30E-05	4.30E-05	9.07E-03	0
564367.1	4182519.82	8.93E-03	4.27E-05	4.27E-05	9.02E-03	0
564387.1	4182519.82	8.84E-03	4.23E-05	4.23E-05	8.92E-03	0
564407.1	4182519.82	8.69E-03	4.16E-05	4.16E-05	8.78E-03	0
564427.1	4182519.82	8.52E-03	4.07E-05	4.07E-05	8.60E-03	0
564447.1	4182519.82	8.34E-03	3.99E-05	3.99E-05	8.42E-03	0
564467.1	4182519.82	8.18E-03	3.91E-05	3.91E-05	8.26E-03	0
564487.1	4182519.82	8.04E-03	3.85E-05	3.85E-05	8.11E-03	0
564507.1	4182519.82	7.89E-03	3.77E-05	3.77E-05	7.96E-03	0
564527.1	4182519.82	7.73E-03	3.70E-05	3.70E-05	7.81E-03	0
564547.1	4182519.82	7.61E-03	3.64E-05	3.64E-05	7.68E-03	0
564567.1	4182519.82	7.53E-03	3.60E-05	3.60E-05	7.61E-03	0
564587.1	4182519.82	7.52E-03	3.60E-05	3.60E-05	7.59E-03	0
564607.1	4182519.82	7.56E-03	3.62E-05	3.62E-05	7.64E-03	0
564627.1	4182519.82	7.68E-03	3.67E-05	3.67E-05	7.75E-03	0
564647.1	4182519.82	7.87E-03	3.76E-05	3.76E-05	7.94E-03	0

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

		Construction Emissions				
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total	
564667.1	4182519.82	8.12E-03	3.88E-05	3.88E-05	8.19E-03	0
564687.1	4182519.82	8.41E-03	4.02E-05	4.02E-05	8.49E-03	0
564707.1	4182519.82	8.72E-03	4.17E-05	4.17E-05	8.81E-03	0
564727.1	4182519.82	9.03E-03	4.32E-05	4.32E-05	9.11E-03	0
564747.1	4182519.82	9.30E-03	4.45E-05	4.45E-05	9.39E-03	0
564767.1	4182519.82	9.51E-03	4.55E-05	4.55E-05	9.61E-03	0
564787.1	4182519.82	9.67E-03	4.63E-05	4.63E-05	9.77E-03	0
564807.1	4182519.82	9.78E-03	4.68E-05	4.68E-05	9.87E-03	0
564827.1	4182519.82	9.83E-03	4.70E-05	4.70E-05	9.92E-03	0
564847.1	4182519.82	9.83E-03	4.70E-05	4.70E-05	9.92E-03	0
564867.1	4182519.82	9.78E-03	4.68E-05	4.68E-05	9.88E-03	0
564887.1	4182519.82	9.70E-03	4.64E-05	4.64E-05	9.79E-03	0
564907.1	4182519.82	9.50E-03	4.54E-05	4.54E-05	9.59E-03	0
564927.1	4182519.82	9.26E-03	4.43E-05	4.43E-05	9.35E-03	0
564947.1	4182519.82	9.13E-03	4.37E-05	4.37E-05	9.22E-03	0
564967.1	4182519.82	9.01E-03	4.31E-05	4.31E-05	9.09E-03	0

Estuary Park

Residential Receptors - Unmitigated Construction Annual Average $PM_{2.5}$ Concentration

Haul Truck Trip Lengths

Source Name	One-Way Trip Length (mi)		AERMOD Modeled Length (m)		Modeled Fraction	
	Haul	Vendor	Haul	Vendor	Haul	Vendor
T_WB	20	7.3	776	776	0.024	0.066
T_EB	20	7.3	776	776	0.024	0.066

AERMOD Variable Emissions

HROFDY	24	hr/day

			Total Mitigated $PM_{2.5}$ (tons)		
Phase Name	Start Date	End Date	Onsite Offroad	Haul Truck	Vendor Truck
Construction	1/1/2024	6/3/2025	4.45E-02	9.80E-03	9.80E-03

			Total Mitigated $PM_{2.5}$ (g/s)		
Phase Name	Start Date	End Date	CSTN	T_WB	T_EB
Construction	1/1/2024	6/3/2025	1.28E-03	2.54E-05	2.54E-05

	Risk	UTM X	UTM Y	
Particulate Risk	0.03	564467.1	4182859.82	Residence

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

		Construction Emissions				
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total	
564047.1	4182339.82	8.91E-04	1.77E-05	1.77E-05	9.26E-04	0
564067.1	4182339.82	9.10E-04	1.81E-05	1.81E-05	9.46E-04	0
564087.1	4182339.82	9.26E-04	1.84E-05	1.84E-05	9.63E-04	0
564107.1	4182339.82	9.40E-04	1.87E-05	1.87E-05	9.78E-04	0
564127.1	4182339.82	9.48E-04	1.88E-05	1.88E-05	9.86E-04	0
564147.1	4182339.82	9.50E-04	1.89E-05	1.89E-05	9.88E-04	0
564167.1	4182339.82	9.44E-04	1.87E-05	1.87E-05	9.81E-04	0
564187.1	4182339.82	9.33E-04	1.85E-05	1.85E-05	9.71E-04	0
564207.1	4182339.82	9.17E-04	1.82E-05	1.82E-05	9.54E-04	0
564227.1	4182339.82	8.99E-04	1.78E-05	1.78E-05	9.34E-04	0
564247.1	4182339.82	8.82E-04	1.75E-05	1.75E-05	9.17E-04	0
564267.1	4182339.82	8.64E-04	1.72E-05	1.72E-05	8.98E-04	0
564287.1	4182339.82	8.50E-04	1.69E-05	1.69E-05	8.84E-04	0
564307.1	4182339.82	8.45E-04	1.68E-05	1.68E-05	8.79E-04	0
564327.1	4182339.82	8.39E-04	1.67E-05	1.67E-05	8.72E-04	0
564347.1	4182339.82	8.36E-04	1.66E-05	1.66E-05	8.69E-04	0
564367.1	4182339.82	8.35E-04	1.66E-05	1.66E-05	8.68E-04	0
564387.1	4182339.82	8.34E-04	1.66E-05	1.66E-05	8.67E-04	0
564407.1	4182339.82	8.32E-04	1.65E-05	1.65E-05	8.65E-04	0
564427.1	4182339.82	8.27E-04	1.64E-05	1.64E-05	8.59E-04	0
564447.1	4182339.82	8.17E-04	1.62E-05	1.62E-05	8.50E-04	0
564467.1	4182339.82	8.05E-04	1.60E-05	1.60E-05	8.37E-04	0
564487.1	4182339.82	7.92E-04	1.57E-05	1.57E-05	8.23E-04	0
564507.1	4182339.82	7.78E-04	1.54E-05	1.54E-05	8.09E-04	0
564527.1	4182339.82	7.64E-04	1.52E-05	1.52E-05	7.94E-04	0
564547.1	4182339.82	7.51E-04	1.49E-05	1.49E-05	7.80E-04	0
564567.1	4182339.82	7.38E-04	1.46E-05	1.46E-05	7.67E-04	0
564587.1	4182339.82	7.25E-04	1.44E-05	1.44E-05	7.53E-04	0
564607.1	4182339.82	7.11E-04	1.41E-05	1.41E-05	7.40E-04	0
564627.1	4182339.82	6.98E-04	1.39E-05	1.39E-05	7.25E-04	0
564647.1	4182339.82	6.85E-04	1.36E-05	1.36E-05	7.12E-04	0
564667.1	4182339.82	6.73E-04	1.34E-05	1.34E-05	6.99E-04	0
564687.1	4182339.82	6.63E-04	1.32E-05	1.32E-05	6.89E-04	0
564707.1	4182339.82	6.56E-04	1.30E-05	1.30E-05	6.82E-04	0
564727.1	4182339.82	6.53E-04	1.30E-05	1.30E-05	6.79E-04	0
564747.1	4182339.82	6.54E-04	1.30E-05	1.30E-05	6.80E-04	0
564767.1	4182339.82	6.57E-04	1.31E-05	1.31E-05	6.83E-04	0
564787.1	4182339.82	6.63E-04	1.32E-05	1.32E-05	6.90E-04	0
564807.1	4182339.82	6.72E-04	1.33E-05	1.33E-05	6.98E-04	0
564827.1	4182339.82	6.82E-04	1.35E-05	1.35E-05	7.09E-04	0
564847.1	4182339.82	6.94E-04	1.38E-05	1.38E-05	7.21E-04	0
564867.1	4182339.82	7.07E-04	1.40E-05	1.40E-05	7.35E-04	0
564887.1	4182339.82	7.20E-04	1.43E-05	1.43E-05	7.49E-04	0
564907.1	4182339.82	7.35E-04	1.46E-05	1.46E-05	7.64E-04	0
564927.1	4182339.82	7.49E-04	1.49E-05	1.49E-05	7.79E-04	0
564947.1	4182339.82	7.64E-04	1.52E-05	1.52E-05	7.94E-04	0
564967.1	4182339.82	7.78E-04	1.54E-05	1.54E-05	8.08E-04	0
564987.1	4182339.82	7.90E-04	1.57E-05	1.57E-05	8.22E-04	0
565007.1	4182339.82	8.02E-04	1.59E-05	1.59E-05	8.34E-04	0
565027.1	4182339.82	8.12E-04	1.61E-05	1.61E-05	8.44E-04	0
564047.1	4182359.82	9.30E-04	1.85E-05	1.85E-05	9.67E-04	0
564067.1	4182359.82	9.55E-04	1.90E-05	1.90E-05	9.93E-04	0
564087.1	4182359.82	9.76E-04	1.94E-05	1.94E-05	1.01E-03	0
564107.1	4182359.82	9.95E-04	1.97E-05	1.97E-05	1.03E-03	0
564127.1	4182359.82	1.01E-03	2.00E-05	2.00E-05	1.05E-03	0
564147.1	4182359.82	1.02E-03	2.02E-05	2.02E-05	1.06E-03	0
564167.1	4182359.82	1.02E-03	2.02E-05	2.02E-05	1.06E-03	0
564187.1	4182359.82	1.01E-03	2.01E-05	2.01E-05	1.05E-03	0
564207.1	4182359.82	1.00E-03	1.99E-05	1.99E-05	1.04E-03	0
564227.1	4182359.82	9.88E-04	1.96E-05	1.96E-05	1.03E-03	0
564247.1	4182359.82	9.73E-04	1.93E-05	1.93E-05	1.01E-03	0

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

		Construction Emissions				
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total	
564267.1	4182359.82	9.53E-04	1.89E-05	1.89E-05	9.91E-04	0
564287.1	4182359.82	9.35E-04	1.86E-05	1.86E-05	9.73E-04	0
564307.1	4182359.82	9.22E-04	1.83E-05	1.83E-05	9.58E-04	0
564327.1	4182359.82	9.12E-04	1.81E-05	1.81E-05	9.48E-04	0
564347.1	4182359.82	9.06E-04	1.80E-05	1.80E-05	9.42E-04	0
564367.1	4182359.82	9.02E-04	1.79E-05	1.79E-05	9.38E-04	0
564387.1	4182359.82	9.00E-04	1.79E-05	1.79E-05	9.36E-04	0
564407.1	4182359.82	8.97E-04	1.78E-05	1.78E-05	9.33E-04	0
564427.1	4182359.82	8.91E-04	1.77E-05	1.77E-05	9.27E-04	0
564447.1	4182359.82	8.82E-04	1.75E-05	1.75E-05	9.17E-04	0
564467.1	4182359.82	8.70E-04	1.73E-05	1.73E-05	9.04E-04	0
564487.1	4182359.82	8.55E-04	1.70E-05	1.70E-05	8.89E-04	0
564507.1	4182359.82	8.40E-04	1.67E-05	1.67E-05	8.74E-04	0
564527.1	4182359.82	8.25E-04	1.64E-05	1.64E-05	8.58E-04	0
564547.1	4182359.82	8.10E-04	1.61E-05	1.61E-05	8.43E-04	0
564567.1	4182359.82	7.96E-04	1.58E-05	1.58E-05	8.28E-04	0
564587.1	4182359.82	7.82E-04	1.55E-05	1.55E-05	8.13E-04	0
564607.1	4182359.82	7.67E-04	1.52E-05	1.52E-05	7.98E-04	0
564627.1	4182359.82	7.53E-04	1.49E-05	1.49E-05	7.83E-04	0
564647.1	4182359.82	7.39E-04	1.47E-05	1.47E-05	7.68E-04	0
564667.1	4182359.82	7.27E-04	1.44E-05	1.44E-05	7.56E-04	0
564687.1	4182359.82	7.19E-04	1.43E-05	1.43E-05	7.47E-04	0
564707.1	4182359.82	7.14E-04	1.42E-05	1.42E-05	7.43E-04	0
564727.1	4182359.82	7.14E-04	1.42E-05	1.42E-05	7.42E-04	0
564747.1	4182359.82	7.17E-04	1.42E-05	1.42E-05	7.45E-04	0
564767.1	4182359.82	7.24E-04	1.44E-05	1.44E-05	7.52E-04	0
564787.1	4182359.82	7.33E-04	1.46E-05	1.46E-05	7.62E-04	0
564807.1	4182359.82	7.45E-04	1.48E-05	1.48E-05	7.75E-04	0
564827.1	4182359.82	7.59E-04	1.51E-05	1.51E-05	7.89E-04	0
564847.1	4182359.82	7.74E-04	1.54E-05	1.54E-05	8.04E-04	0
564867.1	4182359.82	7.90E-04	1.57E-05	1.57E-05	8.21E-04	0
564887.1	4182359.82	8.06E-04	1.60E-05	1.60E-05	8.38E-04	0
564907.1	4182359.82	8.23E-04	1.63E-05	1.63E-05	8.56E-04	0
564927.1	4182359.82	8.39E-04	1.67E-05	1.67E-05	8.73E-04	0
564947.1	4182359.82	8.55E-04	1.70E-05	1.70E-05	8.89E-04	0
564967.1	4182359.82	8.70E-04	1.73E-05	1.73E-05	9.04E-04	0
564987.1	4182359.82	8.83E-04	1.75E-05	1.75E-05	9.18E-04	0
565007.1	4182359.82	8.94E-04	1.77E-05	1.77E-05	9.29E-04	0
565027.1	4182359.82	9.03E-04	1.79E-05	1.79E-05	9.39E-04	0
564047.1	4182379.82	9.69E-04	1.92E-05	1.92E-05	1.01E-03	0
564067.1	4182379.82	9.99E-04	1.98E-05	1.98E-05	1.04E-03	0
564087.1	4182379.82	1.03E-03	2.04E-05	2.04E-05	1.07E-03	0
564107.1	4182379.82	1.05E-03	2.09E-05	2.09E-05	1.09E-03	0
564127.1	4182379.82	1.07E-03	2.13E-05	2.13E-05	1.11E-03	0
564147.1	4182379.82	1.09E-03	2.16E-05	2.16E-05	1.13E-03	0
564167.1	4182379.82	1.10E-03	2.19E-05	2.19E-05	1.15E-03	0
564187.1	4182379.82	1.10E-03	2.18E-05	2.18E-05	1.14E-03	0
564207.1	4182379.82	1.09E-03	2.16E-05	2.16E-05	1.13E-03	0
564227.1	4182379.82	1.08E-03	2.14E-05	2.14E-05	1.12E-03	0
564247.1	4182379.82	1.07E-03	2.12E-05	2.12E-05	1.11E-03	0
564267.1	4182379.82	1.05E-03	2.08E-05	2.08E-05	1.09E-03	0
564287.1	4182379.82	1.03E-03	2.04E-05	2.04E-05	1.07E-03	0
564307.1	4182379.82	1.01E-03	2.01E-05	2.01E-05	1.05E-03	0
564327.1	4182379.82	9.97E-04	1.98E-05	1.98E-05	1.04E-03	0
564347.1	4182379.82	9.88E-04	1.96E-05	1.96E-05	1.03E-03	0
564367.1	4182379.82	9.81E-04	1.95E-05	1.95E-05	1.02E-03	0
564387.1	4182379.82	9.76E-04	1.94E-05	1.94E-05	1.01E-03	0
564407.1	4182379.82	9.71E-04	1.93E-05	1.93E-05	1.01E-03	0
564427.1	4182379.82	9.65E-04	1.92E-05	1.92E-05	1.00E-03	0
564447.1	4182379.82	9.56E-04	1.90E-05	1.90E-05	9.94E-04	0
564467.1	4182379.82	9.43E-04	1.87E-05	1.87E-05	9.80E-04	0
564487.1	4182379.82	9.28E-04	1.84E-05	1.84E-05	9.64E-04	0
564507.1	4182379.82	9.11E-04	1.81E-05	1.81E-05	9.47E-04	0
564527.1	4182379.82	8.95E-04	1.78E-05	1.78E-05	9.30E-04	0
564547.1	4182379.82	8.79E-04	1.74E-05	1.74E-05	9.13E-04	0
564567.1	4182379.82	8.63E-04	1.71E-05	1.71E-05	8.97E-04	0
564587.1	4182379.82	8.47E-04	1.68E-05	1.68E-05	8.80E-04	0
564607.1	4182379.82	8.31E-04	1.65E-05	1.65E-05	8.64E-04	0
564627.1	4182379.82	8.16E-04	1.62E-05	1.62E-05	8.48E-04	0
564647.1	4182379.82	8.02E-04	1.59E-05	1.59E-05	8.34E-04	0
564667.1	4182379.82	7.92E-04	1.57E-05	1.57E-05	8.23E-04	0
564687.1	4182379.82	7.85E-04	1.56E-05	1.56E-05	8.16E-04	0
564707.1	4182379.82	7.83E-04	1.55E-05	1.55E-05	8.14E-04	0
564727.1	4182379.82	7.86E-04	1.56E-05	1.56E-05	8.17E-04	0
564747.1	4182379.82	7.93E-04	1.57E-05	1.57E-05	8.25E-04	0
564767.1	4182379.82	8.04E-04	1.60E-05	1.60E-05	8.36E-04	0
564787.1	4182379.82	8.18E-04	1.62E-05	1.62E-05	8.50E-04	0
564807.1	4182379.82	8.34E-04	1.66E-05	1.66E-05	8.67E-04	0
564827.1	4182379.82	8.51E-04	1.69E-05	1.69E-05	8.85E-04	0
564847.1	4182379.82	8.70E-04	1.73E-05	1.73E-05	9.04E-04	0
564867.1	4182379.82	8.89E-04	1.77E-05	1.77E-05	9.24E-04	0
564887.1	4182379.82	9.08E-04	1.80E-05	1.80E-05	9.44E-04	0
564907.1	4182379.82	9.27E-04	1.84E-05	1.84E-05	9.64E-04	0
564927.1	4182379.82	9.45E-04	1.88E-05	1.88E-05	9.83E-04	0

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

		Construction Emissions				
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total	
564947.1	4182379.82	9.62E-04	1.91E-05	1.91E-05	1.00E-03	0
564967.1	4182379.82	9.76E-04	1.94E-05	1.94E-05	1.01E-03	0
564987.1	4182379.82	9.88E-04	1.96E-05	1.96E-05	1.03E-03	0
565007.1	4182379.82	9.98E-04	1.98E-05	1.98E-05	1.04E-03	0
565027.1	4182379.82	1.01E-03	2.00E-05	2.00E-05	1.05E-03	0
564047.1	4182399.82	1.01E-03	2.00E-05	2.00E-05	1.05E-03	0
564067.1	4182399.82	1.04E-03	2.07E-05	2.07E-05	1.08E-03	0
564087.1	4182399.82	1.08E-03	2.14E-05	2.14E-05	1.12E-03	0
564107.1	4182399.82	1.11E-03	2.20E-05	2.20E-05	1.15E-03	0
564127.1	4182399.82	1.14E-03	2.26E-05	2.26E-05	1.19E-03	0
564147.1	4182399.82	1.17E-03	2.32E-05	2.32E-05	1.21E-03	0
564167.1	4182399.82	1.19E-03	2.35E-05	2.35E-05	1.23E-03	0
564187.1	4182399.82	1.19E-03	2.36E-05	2.36E-05	1.24E-03	0
564207.1	4182399.82	1.18E-03	2.35E-05	2.35E-05	1.23E-03	0
564227.1	4182399.82	1.18E-03	2.35E-05	2.35E-05	1.23E-03	0
564247.1	4182399.82	1.17E-03	2.33E-05	2.33E-05	1.22E-03	0
564267.1	4182399.82	1.15E-03	2.29E-05	2.29E-05	1.20E-03	0
564287.1	4182399.82	1.13E-03	2.25E-05	2.25E-05	1.18E-03	0
564307.1	4182399.82	1.11E-03	2.21E-05	2.21E-05	1.16E-03	0
564327.1	4182399.82	1.10E-03	2.18E-05	2.18E-05	1.14E-03	0
564347.1	4182399.82	1.08E-03	2.15E-05	2.15E-05	1.13E-03	0
564367.1	4182399.82	1.07E-03	2.13E-05	2.13E-05	1.12E-03	0
564387.1	4182399.82	1.07E-03	2.12E-05	2.12E-05	1.11E-03	0
564407.1	4182399.82	1.06E-03	2.10E-05	2.10E-05	1.10E-03	0
564427.1	4182399.82	1.05E-03	2.09E-05	2.09E-05	1.09E-03	0
564447.1	4182399.82	1.04E-03	2.07E-05	2.07E-05	1.08E-03	0
564467.1	4182399.82	1.03E-03	2.04E-05	2.04E-05	1.07E-03	0
564487.1	4182399.82	1.01E-03	2.01E-05	2.01E-05	1.05E-03	0
564507.1	4182399.82	9.93E-04	1.97E-05	1.97E-05	1.03E-03	0
564527.1	4182399.82	9.74E-04	1.93E-05	1.93E-05	1.01E-03	0
564547.1	4182399.82	9.56E-04	1.90E-05	1.90E-05	9.94E-04	0
564567.1	4182399.82	9.39E-04	1.86E-05	1.86E-05	9.76E-04	0
564587.1	4182399.82	9.22E-04	1.83E-05	1.83E-05	9.58E-04	0
564607.1	4182399.82	9.05E-04	1.80E-05	1.80E-05	9.41E-04	0
564627.1	4182399.82	8.90E-04	1.77E-05	1.77E-05	9.25E-04	0
564647.1	4182399.82	8.77E-04	1.74E-05	1.74E-05	9.12E-04	0
564667.1	4182399.82	8.68E-04	1.72E-05	1.72E-05	9.02E-04	0
564687.1	4182399.82	8.64E-04	1.72E-05	1.72E-05	8.98E-04	0
564707.1	4182399.82	8.66E-04	1.72E-05	1.72E-05	9.00E-04	0
564727.1	4182399.82	8.74E-04	1.73E-05	1.73E-05	9.08E-04	0
564747.1	4182399.82	8.86E-04	1.76E-05	1.76E-05	9.21E-04	0
564767.1	4182399.82	9.02E-04	1.79E-05	1.79E-05	9.38E-04	0
564787.1	4182399.82	9.21E-04	1.83E-05	1.83E-05	9.58E-04	0
564807.1	4182399.82	9.42E-04	1.87E-05	1.87E-05	9.79E-04	0
564827.1	4182399.82	9.64E-04	1.91E-05	1.91E-05	1.00E-03	0
564847.1	4182399.82	9.86E-04	1.96E-05	1.96E-05	1.03E-03	0
564867.1	4182399.82	1.01E-03	2.00E-05	2.00E-05	1.05E-03	0
564887.1	4182399.82	1.03E-03	2.05E-05	2.05E-05	1.07E-03	0
564907.1	4182399.82	1.05E-03	2.09E-05	2.09E-05	1.09E-03	0
564927.1	4182399.82	1.07E-03	2.12E-05	2.12E-05	1.11E-03	0
564947.1	4182399.82	1.09E-03	2.15E-05	2.15E-05	1.13E-03	0
564967.1	4182399.82	1.10E-03	2.18E-05	2.18E-05	1.14E-03	0
564987.1	4182399.82	1.11E-03	2.20E-05	2.20E-05	1.15E-03	0
565007.1	4182399.82	1.11E-03	2.21E-05	2.21E-05	1.16E-03	0
565027.1	4182399.82	1.12E-03	2.22E-05	2.22E-05	1.16E-03	0
564047.1	4182419.82	1.04E-03	2.07E-05	2.07E-05	1.09E-03	0
564067.1	4182419.82	1.08E-03	2.15E-05	2.15E-05	1.13E-03	0
564087.1	4182419.82	1.12E-03	2.23E-05	2.23E-05	1.17E-03	0
564107.1	4182419.82	1.17E-03	2.31E-05	2.31E-05	1.21E-03	0
564127.1	4182419.82	1.21E-03	2.40E-05	2.40E-05	1.26E-03	0
564147.1	4182419.82	1.24E-03	2.47E-05	2.47E-05	1.29E-03	0
564167.1	4182419.82	1.27E-03	2.52E-05	2.52E-05	1.32E-03	0
564187.1	4182419.82	1.29E-03	2.56E-05	2.56E-05	1.34E-03	0
564207.1	4182419.82	1.30E-03	2.58E-05	2.58E-05	1.35E-03	0
564227.1	4182419.82	1.30E-03	2.58E-05	2.58E-05	1.35E-03	0
564247.1	4182419.82	1.29E-03	2.56E-05	2.56E-05	1.34E-03	0
564267.1	4182419.82	1.27E-03	2.53E-05	2.53E-05	1.33E-03	0
564287.1	4182419.82	1.25E-03	2.49E-05	2.49E-05	1.30E-03	0
564307.1	4182419.82	1.23E-03	2.45E-05	2.45E-05	1.28E-03	0
564327.1	4182419.82	1.21E-03	2.41E-05	2.41E-05	1.26E-03	0
564347.1	4182419.82	1.20E-03	2.38E-05	2.38E-05	1.25E-03	0
564367.1	4182419.82	1.18E-03	2.35E-05	2.35E-05	1.23E-03	0
564387.1	4182419.82	1.17E-03	2.32E-05	2.32E-05	1.22E-03	0
564407.1	4182419.82	1.16E-03	2.30E-05	2.30E-05	1.21E-03	0
564427.1	4182419.82	1.15E-03	2.28E-05	2.28E-05	1.20E-03	0
564447.1	4182419.82	1.14E-03	2.26E-05	2.26E-05	1.18E-03	0
564467.1	4182419.82	1.12E-03	2.23E-05	2.23E-05	1.17E-03	0
564487.1	4182419.82	1.11E-03	2.20E-05	2.20E-05	1.15E-03	0
564507.1	4182419.82	1.09E-03	2.16E-05	2.16E-05	1.13E-03	0
564527.1	4182419.82	1.07E-03	2.12E-05	2.12E-05	1.11E-03	0
564547.1	4182419.82	1.05E-03	2.08E-05	2.08E-05	1.09E-03	0
564567.1	4182419.82	1.03E-03	2.04E-05	2.04E-05	1.07E-03	0
564587.1	4182419.82	1.01E-03	2.00E-05	2.00E-05	1.05E-03	0
564607.1	4182419.82	9.92E-04	1.97E-05	1.97E-05	1.03E-03	0

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

		Construction Emissions				
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total	
564627.1	4182419.82	9.77E-04	1.94E-05	1.94E-05	1.02E-03	0
564647.1	4182419.82	9.66E-04	1.92E-05	1.92E-05	1.00E-03	0
564667.1	4182419.82	9.60E-04	1.91E-05	1.91E-05	9.98E-04	0
564687.1	4182419.82	9.60E-04	1.91E-05	1.91E-05	9.99E-04	0
564707.1	4182419.82	9.68E-04	1.92E-05	1.92E-05	1.01E-03	0
564727.1	4182419.82	9.82E-04	1.95E-05	1.95E-05	1.02E-03	0
564747.1	4182419.82	1.00E-03	1.99E-05	1.99E-05	1.04E-03	0
564767.1	4182419.82	1.02E-03	2.03E-05	2.03E-05	1.06E-03	0
564787.1	4182419.82	1.05E-03	2.08E-05	2.08E-05	1.09E-03	0
564807.1	4182419.82	1.07E-03	2.13E-05	2.13E-05	1.12E-03	0
564827.1	4182419.82	1.10E-03	2.19E-05	2.19E-05	1.15E-03	0
564847.1	4182419.82	1.13E-03	2.24E-05	2.24E-05	1.17E-03	0
564867.1	4182419.82	1.15E-03	2.29E-05	2.29E-05	1.20E-03	0
564887.1	4182419.82	1.17E-03	2.33E-05	2.33E-05	1.22E-03	0
564907.1	4182419.82	1.20E-03	2.37E-05	2.37E-05	1.24E-03	0
564927.1	4182419.82	1.21E-03	2.41E-05	2.41E-05	1.26E-03	0
564947.1	4182419.82	1.23E-03	2.44E-05	2.44E-05	1.28E-03	0
564967.1	4182419.82	1.24E-03	2.46E-05	2.46E-05	1.29E-03	0
564987.1	4182419.82	1.24E-03	2.47E-05	2.47E-05	1.29E-03	0
565007.1	4182419.82	1.25E-03	2.47E-05	2.47E-05	1.29E-03	0
565027.1	4182419.82	1.24E-03	2.47E-05	2.47E-05	1.29E-03	0
564047.1	4182439.82	1.08E-03	2.14E-05	2.14E-05	1.12E-03	0
564067.1	4182439.82	1.12E-03	2.23E-05	2.23E-05	1.17E-03	0
564087.1	4182439.82	1.17E-03	2.33E-05	2.33E-05	1.22E-03	0
564107.1	4182439.82	1.22E-03	2.42E-05	2.42E-05	1.27E-03	0
564127.1	4182439.82	1.27E-03	2.52E-05	2.52E-05	1.32E-03	0
564147.1	4182439.82	1.32E-03	2.61E-05	2.61E-05	1.37E-03	0
564167.1	4182439.82	1.35E-03	2.69E-05	2.69E-05	1.41E-03	0
564187.1	4182439.82	1.39E-03	2.75E-05	2.75E-05	1.44E-03	0
564207.1	4182439.82	1.41E-03	2.79E-05	2.79E-05	1.46E-03	0
564227.1	4182439.82	1.42E-03	2.82E-05	2.82E-05	1.48E-03	0
564247.1	4182439.82	1.42E-03	2.82E-05	2.82E-05	1.48E-03	0
564267.1	4182439.82	1.41E-03	2.80E-05	2.80E-05	1.47E-03	0
564287.1	4182439.82	1.39E-03	2.76E-05	2.76E-05	1.45E-03	0
564307.1	4182439.82	1.37E-03	2.72E-05	2.72E-05	1.43E-03	0
564327.1	4182439.82	1.35E-03	2.68E-05	2.68E-05	1.41E-03	0
564347.1	4182439.82	1.33E-03	2.65E-05	2.65E-05	1.39E-03	0
564367.1	4182439.82	1.31E-03	2.61E-05	2.61E-05	1.37E-03	0
564387.1	4182439.82	1.30E-03	2.58E-05	2.58E-05	1.35E-03	0
564407.1	4182439.82	1.28E-03	2.54E-05	2.54E-05	1.33E-03	0
564427.1	4182439.82	1.27E-03	2.52E-05	2.52E-05	1.32E-03	0
564447.1	4182439.82	1.25E-03	2.49E-05	2.49E-05	1.30E-03	0
564467.1	4182439.82	1.24E-03	2.46E-05	2.46E-05	1.29E-03	0
564487.1	4182439.82	1.22E-03	2.42E-05	2.42E-05	1.27E-03	0
564507.1	4182439.82	1.20E-03	2.38E-05	2.38E-05	1.24E-03	0
564527.1	4182439.82	1.17E-03	2.33E-05	2.33E-05	1.22E-03	0
564547.1	4182439.82	1.15E-03	2.29E-05	2.29E-05	1.20E-03	0
564567.1	4182439.82	1.13E-03	2.25E-05	2.25E-05	1.18E-03	0
564587.1	4182439.82	1.11E-03	2.21E-05	2.21E-05	1.16E-03	0
564607.1	4182439.82	1.09E-03	2.17E-05	2.17E-05	1.14E-03	0
564627.1	4182439.82	1.08E-03	2.15E-05	2.15E-05	1.12E-03	0
564647.1	4182439.82	1.07E-03	2.13E-05	2.13E-05	1.12E-03	0
564667.1	4182439.82	1.07E-03	2.13E-05	2.13E-05	1.12E-03	0
564687.1	4182439.82	1.08E-03	2.14E-05	2.14E-05	1.12E-03	0
564707.1	4182439.82	1.10E-03	2.17E-05	2.17E-05	1.14E-03	0
564727.1	4182439.82	1.12E-03	2.22E-05	2.22E-05	1.16E-03	0
564747.1	4182439.82	1.14E-03	2.27E-05	2.27E-05	1.19E-03	0
564767.1	4182439.82	1.18E-03	2.33E-05	2.33E-05	1.22E-03	0
564787.1	4182439.82	1.21E-03	2.40E-05	2.40E-05	1.26E-03	0
564807.1	4182439.82	1.24E-03	2.46E-05	2.46E-05	1.29E-03	0
564827.1	4182439.82	1.27E-03	2.52E-05	2.52E-05	1.32E-03	0
564847.1	4182439.82	1.30E-03	2.58E-05	2.58E-05	1.35E-03	0
564867.1	4182439.82	1.32E-03	2.63E-05	2.63E-05	1.38E-03	0
564887.1	4182439.82	1.35E-03	2.67E-05	2.67E-05	1.40E-03	0
564907.1	4182439.82	1.36E-03	2.71E-05	2.71E-05	1.42E-03	0
564927.1	4182439.82	1.38E-03	2.74E-05	2.74E-05	1.43E-03	0
564947.1	4182439.82	1.39E-03	2.76E-05	2.76E-05	1.44E-03	0
564967.1	4182439.82	1.39E-03	2.77E-05	2.77E-05	1.45E-03	0
564987.1	4182439.82	1.39E-03	2.77E-05	2.77E-05	1.45E-03	0
565007.1	4182439.82	1.39E-03	2.76E-05	2.76E-05	1.44E-03	0
565027.1	4182439.82	1.38E-03	2.74E-05	2.74E-05	1.43E-03	0
564047.1	4182459.82	1.11E-03	2.20E-05	2.20E-05	1.15E-03	0
564067.1	4182459.82	1.16E-03	2.30E-05	2.30E-05	1.21E-03	0
564087.1	4182459.82	1.22E-03	2.41E-05	2.41E-05	1.26E-03	0
564107.1	4182459.82	1.27E-03	2.52E-05	2.52E-05	1.32E-03	0
564127.1	4182459.82	1.33E-03	2.63E-05	2.63E-05	1.38E-03	0
564147.1	4182459.82	1.39E-03	2.76E-05	2.76E-05	1.44E-03	0
564167.1	4182459.82	1.44E-03	2.86E-05	2.86E-05	1.50E-03	0
564187.1	4182459.82	1.48E-03	2.95E-05	2.95E-05	1.54E-03	0
564207.1	4182459.82	1.52E-03	3.02E-05	3.02E-05	1.58E-03	0
564227.1	4182459.82	1.55E-03	3.07E-05	3.07E-05	1.61E-03	0
564247.1	4182459.82	1.56E-03	3.10E-05	3.10E-05	1.62E-03	0
564267.1	4182459.82	1.56E-03	3.10E-05	3.10E-05	1.62E-03	0
564287.1	4182459.82	1.55E-03	3.08E-05	3.08E-05	1.61E-03	0

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

		Construction Emissions				
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total	
564307.1	4182459.82	1.53E-03	3.04E-05	3.04E-05	1.59E-03	0
564327.1	4182459.82	1.51E-03	3.00E-05	3.00E-05	1.57E-03	0
564347.1	4182459.82	1.49E-03	2.96E-05	2.96E-05	1.55E-03	0
564367.1	4182459.82	1.47E-03	2.92E-05	2.92E-05	1.53E-03	0
564387.1	4182459.82	1.45E-03	2.88E-05	2.88E-05	1.51E-03	0
564407.1	4182459.82	1.43E-03	2.83E-05	2.83E-05	1.48E-03	0
564427.1	4182459.82	1.41E-03	2.79E-05	2.79E-05	1.46E-03	0
564447.1	4182459.82	1.39E-03	2.76E-05	2.76E-05	1.44E-03	0
564467.1	4182459.82	1.37E-03	2.72E-05	2.72E-05	1.43E-03	0
564487.1	4182459.82	1.35E-03	2.68E-05	2.68E-05	1.40E-03	0
564507.1	4182459.82	1.33E-03	2.63E-05	2.63E-05	1.38E-03	0
564527.1	4182459.82	1.30E-03	2.58E-05	2.58E-05	1.35E-03	0
564547.1	4182459.82	1.28E-03	2.53E-05	2.53E-05	1.33E-03	0
564567.1	4182459.82	1.25E-03	2.49E-05	2.49E-05	1.30E-03	0
564587.1	4182459.82	1.23E-03	2.45E-05	2.45E-05	1.28E-03	0
564607.1	4182459.82	1.22E-03	2.42E-05	2.42E-05	1.27E-03	0
564627.1	4182459.82	1.21E-03	2.40E-05	2.40E-05	1.26E-03	0
564647.1	4182459.82	1.21E-03	2.40E-05	2.40E-05	1.26E-03	0
564667.1	4182459.82	1.21E-03	2.41E-05	2.41E-05	1.26E-03	0
564687.1	4182459.82	1.23E-03	2.44E-05	2.44E-05	1.28E-03	0
564707.1	4182459.82	1.26E-03	2.50E-05	2.50E-05	1.31E-03	0
564727.1	4182459.82	1.29E-03	2.56E-05	2.56E-05	1.34E-03	0
564747.1	4182459.82	1.33E-03	2.64E-05	2.64E-05	1.38E-03	0
564767.1	4182459.82	1.37E-03	2.71E-05	2.71E-05	1.42E-03	0
564787.1	4182459.82	1.40E-03	2.79E-05	2.79E-05	1.46E-03	0
564807.1	4182459.82	1.44E-03	2.86E-05	2.86E-05	1.50E-03	0
564827.1	4182459.82	1.47E-03	2.93E-05	2.93E-05	1.53E-03	0
564847.1	4182459.82	1.50E-03	2.98E-05	2.98E-05	1.56E-03	0
564867.1	4182459.82	1.53E-03	3.03E-05	3.03E-05	1.59E-03	0
564887.1	4182459.82	1.55E-03	3.07E-05	3.07E-05	1.61E-03	0
564907.1	4182459.82	1.56E-03	3.10E-05	3.10E-05	1.62E-03	0
564927.1	4182459.82	1.57E-03	3.11E-05	3.11E-05	1.63E-03	0
564947.1	4182459.82	1.57E-03	3.12E-05	3.12E-05	1.63E-03	0
564967.1	4182459.82	1.57E-03	3.11E-05	3.11E-05	1.63E-03	0
564987.1	4182459.82	1.56E-03	3.09E-05	3.09E-05	1.62E-03	0
565007.1	4182459.82	1.54E-03	3.06E-05	3.06E-05	1.60E-03	0
565027.1	4182459.82	1.53E-03	3.03E-05	3.03E-05	1.59E-03	0
564047.1	4182479.82	1.13E-03	2.25E-05	2.25E-05	1.18E-03	0
564067.1	4182479.82	1.19E-03	2.37E-05	2.37E-05	1.24E-03	0
564087.1	4182479.82	1.26E-03	2.50E-05	2.50E-05	1.31E-03	0
564107.1	4182479.82	1.32E-03	2.63E-05	2.63E-05	1.38E-03	0
564127.1	4182479.82	1.39E-03	2.76E-05	2.76E-05	1.45E-03	0
564147.1	4182479.82	1.46E-03	2.90E-05	2.90E-05	1.52E-03	0
564167.1	4182479.82	1.52E-03	3.03E-05	3.03E-05	1.58E-03	0
564187.1	4182479.82	1.58E-03	3.14E-05	3.14E-05	1.65E-03	0
564207.1	4182479.82	1.64E-03	3.25E-05	3.25E-05	1.70E-03	0
564227.1	4182479.82	1.68E-03	3.33E-05	3.33E-05	1.75E-03	0
564247.1	4182479.82	1.71E-03	3.39E-05	3.39E-05	1.78E-03	0
564267.1	4182479.82	1.72E-03	3.42E-05	3.42E-05	1.79E-03	0
564287.1	4182479.82	1.73E-03	3.43E-05	3.43E-05	1.79E-03	0
564307.1	4182479.82	1.72E-03	3.41E-05	3.41E-05	1.78E-03	0
564327.1	4182479.82	1.70E-03	3.37E-05	3.37E-05	1.77E-03	0
564347.1	4182479.82	1.68E-03	3.34E-05	3.34E-05	1.75E-03	0
564367.1	4182479.82	1.66E-03	3.29E-05	3.29E-05	1.72E-03	0
564387.1	4182479.82	1.63E-03	3.24E-05	3.24E-05	1.70E-03	0
564407.1	4182479.82	1.61E-03	3.19E-05	3.19E-05	1.67E-03	0
564427.1	4182479.82	1.58E-03	3.13E-05	3.13E-05	1.64E-03	0
564447.1	4182479.82	1.55E-03	3.09E-05	3.09E-05	1.62E-03	0
564467.1	4182479.82	1.53E-03	3.04E-05	3.04E-05	1.59E-03	0
564487.1	4182479.82	1.51E-03	3.00E-05	3.00E-05	1.57E-03	0
564507.1	4182479.82	1.48E-03	2.94E-05	2.94E-05	1.54E-03	0
564527.1	4182479.82	1.45E-03	2.88E-05	2.88E-05	1.51E-03	0
564547.1	4182479.82	1.42E-03	2.83E-05	2.83E-05	1.48E-03	0
564567.1	4182479.82	1.40E-03	2.78E-05	2.78E-05	1.46E-03	0
564587.1	4182479.82	1.38E-03	2.75E-05	2.75E-05	1.44E-03	0
564607.1	4182479.82	1.37E-03	2.73E-05	2.73E-05	1.43E-03	0
564627.1	4182479.82	1.37E-03	2.72E-05	2.72E-05	1.42E-03	0
564647.1	4182479.82	1.38E-03	2.73E-05	2.73E-05	1.43E-03	0
564667.1	4182479.82	1.40E-03	2.77E-05	2.77E-05	1.45E-03	0
564687.1	4182479.82	1.43E-03	2.83E-05	2.83E-05	1.48E-03	0
564707.1	4182479.82	1.47E-03	2.91E-05	2.91E-05	1.52E-03	0
564727.1	4182479.82	1.51E-03	3.00E-05	3.00E-05	1.57E-03	0
564747.1	4182479.82	1.56E-03	3.10E-05	3.10E-05	1.62E-03	0
564767.1	4182479.82	1.61E-03	3.19E-05	3.19E-05	1.67E-03	0
564787.1	4182479.82	1.65E-03	3.28E-05	3.28E-05	1.72E-03	0
564807.1	4182479.82	1.69E-03	3.35E-05	3.35E-05	1.76E-03	0
564827.1	4182479.82	1.72E-03	3.42E-05	3.42E-05	1.79E-03	0
564847.1	4182479.82	1.75E-03	3.47E-05	3.47E-05	1.82E-03	0
564867.1	4182479.82	1.77E-03	3.51E-05	3.51E-05	1.84E-03	0
564887.1	4182479.82	1.78E-03	3.53E-05	3.53E-05	1.85E-03	0
564907.1	4182479.82	1.78E-03	3.54E-05	3.54E-05	1.85E-03	0
564927.1	4182479.82	1.78E-03	3.53E-05	3.53E-05	1.85E-03	0
564947.1	4182479.82	1.77E-03	3.52E-05	3.52E-05	1.84E-03	0
564967.1	4182479.82	1.76E-03	3.48E-05	3.48E-05	1.82E-03	0

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

		Construction Emissions				
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total	
564987.1	4182479.82	1.73E-03	3.44E-05	3.44E-05	1.80E-03	0
565007.1	4182479.82	1.71E-03	3.39E-05	3.39E-05	1.78E-03	0
565027.1	4182479.82	1.68E-03	3.34E-05	3.34E-05	1.75E-03	0
564047.1	4182499.82	1.15E-03	2.29E-05	2.29E-05	1.20E-03	0
564067.1	4182499.82	1.22E-03	2.43E-05	2.43E-05	1.27E-03	0
564087.1	4182499.82	1.29E-03	2.57E-05	2.57E-05	1.35E-03	0
564107.1	4182499.82	1.37E-03	2.72E-05	2.72E-05	1.42E-03	0
564127.1	4182499.82	1.45E-03	2.87E-05	2.87E-05	1.51E-03	0
564147.1	4182499.82	1.53E-03	3.03E-05	3.03E-05	1.59E-03	0
564167.1	4182499.82	1.60E-03	3.19E-05	3.19E-05	1.67E-03	0
564187.1	4182499.82	1.68E-03	3.34E-05	3.34E-05	1.75E-03	0
564207.1	4182499.82	1.75E-03	3.48E-05	3.48E-05	1.82E-03	0
564227.1	4182499.82	1.81E-03	3.60E-05	3.60E-05	1.89E-03	0
564247.1	4182499.82	1.87E-03	3.71E-05	3.71E-05	1.94E-03	0
564267.1	4182499.82	1.90E-03	3.78E-05	3.78E-05	1.98E-03	0
564287.1	4182499.82	1.92E-03	3.81E-05	3.81E-05	2.00E-03	0
564307.1	4182499.82	1.92E-03	3.82E-05	3.82E-05	2.00E-03	0
564327.1	4182499.82	1.92E-03	3.81E-05	3.81E-05	1.99E-03	0
564347.1	4182499.82	1.90E-03	3.78E-05	3.78E-05	1.98E-03	0
564367.1	4182499.82	1.88E-03	3.74E-05	3.74E-05	1.96E-03	0
564387.1	4182499.82	1.86E-03	3.69E-05	3.69E-05	1.93E-03	0
564407.1	4182499.82	1.82E-03	3.62E-05	3.62E-05	1.90E-03	0
564427.1	4182499.82	1.79E-03	3.55E-05	3.55E-05	1.86E-03	0
564447.1	4182499.82	1.76E-03	3.49E-05	3.49E-05	1.83E-03	0
564467.1	4182499.82	1.73E-03	3.43E-05	3.43E-05	1.80E-03	0
564487.1	4182499.82	1.70E-03	3.38E-05	3.38E-05	1.77E-03	0
564507.1	4182499.82	1.67E-03	3.31E-05	3.31E-05	1.74E-03	0
564527.1	4182499.82	1.64E-03	3.25E-05	3.25E-05	1.70E-03	0
564547.1	4182499.82	1.61E-03	3.19E-05	3.19E-05	1.67E-03	0
564567.1	4182499.82	1.58E-03	3.15E-05	3.15E-05	1.65E-03	0
564587.1	4182499.82	1.57E-03	3.12E-05	3.12E-05	1.63E-03	0
564607.1	4182499.82	1.57E-03	3.11E-05	3.11E-05	1.63E-03	0
564627.1	4182499.82	1.58E-03	3.13E-05	3.13E-05	1.64E-03	0
564647.1	4182499.82	1.60E-03	3.17E-05	3.17E-05	1.66E-03	0
564667.1	4182499.82	1.63E-03	3.25E-05	3.25E-05	1.70E-03	0
564687.1	4182499.82	1.68E-03	3.34E-05	3.34E-05	1.75E-03	0
564707.1	4182499.82	1.74E-03	3.45E-05	3.45E-05	1.81E-03	0
564727.1	4182499.82	1.80E-03	3.57E-05	3.57E-05	1.87E-03	0
564747.1	4182499.82	1.86E-03	3.69E-05	3.69E-05	1.93E-03	0
564767.1	4182499.82	1.91E-03	3.79E-05	3.79E-05	1.99E-03	0
564787.1	4182499.82	1.96E-03	3.88E-05	3.88E-05	2.03E-03	0
564807.1	4182499.82	1.99E-03	3.95E-05	3.95E-05	2.07E-03	0
564827.1	4182499.82	2.02E-03	4.01E-05	4.01E-05	2.10E-03	0
564847.1	4182499.82	2.03E-03	4.04E-05	4.04E-05	2.12E-03	0
564867.1	4182499.82	2.04E-03	4.06E-05	4.06E-05	2.12E-03	0
564887.1	4182499.82	2.04E-03	4.05E-05	4.05E-05	2.12E-03	0
564907.1	4182499.82	2.03E-03	4.03E-05	4.03E-05	2.11E-03	0
564927.1	4182499.82	2.01E-03	3.99E-05	3.99E-05	2.09E-03	0
564947.1	4182499.82	1.99E-03	3.95E-05	3.95E-05	2.07E-03	0
564967.1	4182499.82	1.96E-03	3.89E-05	3.89E-05	2.04E-03	0
564987.1	4182499.82	1.92E-03	3.82E-05	3.82E-05	2.00E-03	0
565007.1	4182499.82	1.89E-03	3.74E-05	3.74E-05	1.96E-03	0
565027.1	4182499.82	1.84E-03	3.66E-05	3.66E-05	1.92E-03	0
564047.1	4182519.82	1.18E-03	2.33E-05	2.33E-05	1.22E-03	0
564067.1	4182519.82	1.25E-03	2.48E-05	2.48E-05	1.30E-03	0
564087.1	4182519.82	1.33E-03	2.64E-05	2.64E-05	1.38E-03	0
564107.1	4182519.82	1.41E-03	2.80E-05	2.80E-05	1.47E-03	0
564127.1	4182519.82	1.50E-03	2.98E-05	2.98E-05	1.56E-03	0
564147.1	4182519.82	1.59E-03	3.15E-05	3.15E-05	1.65E-03	0
564167.1	4182519.82	1.68E-03	3.34E-05	3.34E-05	1.75E-03	0
564187.1	4182519.82	1.77E-03	3.52E-05	3.52E-05	1.84E-03	0
564207.1	4182519.82	1.87E-03	3.70E-05	3.70E-05	1.94E-03	0
564227.1	4182519.82	1.95E-03	3.88E-05	3.88E-05	2.03E-03	0
564247.1	4182519.82	2.03E-03	4.03E-05	4.03E-05	2.11E-03	0
564267.1	4182519.82	2.09E-03	4.15E-05	4.15E-05	2.18E-03	0
564287.1	4182519.82	2.14E-03	4.24E-05	4.24E-05	2.22E-03	0
564307.1	4182519.82	2.16E-03	4.29E-05	4.29E-05	2.25E-03	0
564327.1	4182519.82	2.17E-03	4.30E-05	4.30E-05	2.25E-03	0
564347.1	4182519.82	2.16E-03	4.30E-05	4.30E-05	2.25E-03	0
564367.1	4182519.82	2.15E-03	4.27E-05	4.27E-05	2.24E-03	0
564387.1	4182519.82	2.13E-03	4.23E-05	4.23E-05	2.21E-03	0
564407.1	4182519.82	2.09E-03	4.16E-05	4.16E-05	2.18E-03	0
564427.1	4182519.82	2.05E-03	4.07E-05	4.07E-05	2.13E-03	0
564447.1	4182519.82	2.01E-03	3.99E-05	3.99E-05	2.09E-03	0
564467.1	4182519.82	1.97E-03	3.91E-05	3.91E-05	2.05E-03	0
564487.1	4182519.82	1.94E-03	3.85E-05	3.85E-05	2.01E-03	0
564507.1	4182519.82	1.90E-03	3.77E-05	3.77E-05	1.98E-03	0
564527.1	4182519.82	1.86E-03	3.70E-05	3.70E-05	1.94E-03	0
564547.1	4182519.82	1.83E-03	3.64E-05	3.64E-05	1.91E-03	0
564567.1	4182519.82	1.82E-03	3.60E-05	3.60E-05	1.89E-03	0
564587.1	4182519.82	1.81E-03	3.60E-05	3.60E-05	1.88E-03	0
564607.1	4182519.82	1.82E-03	3.62E-05	3.62E-05	1.90E-03	0
564627.1	4182519.82	1.85E-03	3.67E-05	3.67E-05	1.92E-03	0
564647.1	4182519.82	1.90E-03	3.76E-05	3.76E-05	1.97E-03	0

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

		Construction Emissions				
X (UTM)	Y (UTM	CSTN	T_WB	T_EB	Total	
564667.1	4182519.82	1.96E-03	3.88E-05	3.88E-05	2.03E-03	0
564687.1	4182519.82	2.03E-03	4.02E-05	4.02E-05	2.11E-03	0
564707.1	4182519.82	2.10E-03	4.17E-05	4.17E-05	2.19E-03	0
564727.1	4182519.82	2.18E-03	4.32E-05	4.32E-05	2.26E-03	0
564747.1	4182519.82	2.24E-03	4.45E-05	4.45E-05	2.33E-03	0
564767.1	4182519.82	2.29E-03	4.55E-05	4.55E-05	2.38E-03	0
564787.1	4182519.82	2.33E-03	4.63E-05	4.63E-05	2.42E-03	0
564807.1	4182519.82	2.36E-03	4.68E-05	4.68E-05	2.45E-03	0
564827.1	4182519.82	2.37E-03	4.70E-05	4.70E-05	2.46E-03	0
564847.1	4182519.82	2.37E-03	4.70E-05	4.70E-05	2.46E-03	0
564867.1	4182519.82	2.36E-03	4.68E-05	4.68E-05	2.45E-03	0
564887.1	4182519.82	2.34E-03	4.64E-05	4.64E-05	2.43E-03	0
564907.1	4182519.82	2.29E-03	4.54E-05	4.54E-05	2.38E-03	0
564927.1	4182519.82	2.23E-03	4.43E-05	4.43E-05	2.32E-03	0
564947.1	4182519.82	2.20E-03	4.37E-05	4.37E-05	2.29E-03	0
564967.1	4182519.82	2.17E-03	4.31E-05	4.31E-05	2.26E-03	0

APPENDIX C

Peer Review Memo of the Estuary Park Renovation & Expansion Project Cultural Resources Evaluation, ESA 2023

ESA

180 Grand Avenue
Suite 1050
Oakland, CA 94612
510.839.5066 phone
510.839.5825 fax

esassoc.com

memorandum

date	July 26, 2023
to	Catherine Payne and Richard Walker, City of Oakland Planning Department
cc	Crescentia Brown, ESA
from	Becky Urbano, ESA
subject	Peer Review Memo of the Estuary Park Renovation & Expansion Project Cultural Resources Evaluation

As part of the Oakland Estuary Park Renovation and Expansion Project Master Plan EIR, ESA has been asked to conduct a peer review of the *Estuary Park Renovation & Expansion Project Cultural Resources Evaluation Report* prepared by Archaeological/Historical Consultants for Hargreaves Associates in November 2018 (report). (See **Attachment B**.) The report evaluated built features within the Oakland Estuary Park Renovation and Expansion Project Master Plan (Project) site for inclusion in the California Register of Historical Resources (California Register) and for consideration as a City of Oakland CEQA resource. The report identified three potential resources: a Lawrence Halprin and Associates (LH&A) designed park constructed between 1968 and 1972; a series of large outdoor sculptures associated with a sculpture design program directed by the Oakland Museum of California and installed between 1979 and 1982; and the Jack London Aquatic Center (JLAC) which was constructed between 1998 and 2000. At the time (2018), the report concluded that the JLAC and sculpture program did not meet the 45-year age threshold generally applied for consideration of historic resources. Regarding the LH&A park, the report concluded:

> *The park elements designed by Lawrence Halprin and Associates are less than 50 years old, and are minor works which were not completed to the original design. As filled land, the project area is very unlikely to contain prehistoric archaeological sites, and historic activities do not appear likely to have create historic archaeological deposits.*
>
> *Assessment of the Halprin and Associates landscape elements under the [Oakland Cultural Heritage Survey] OCHS evaluation gives them a rating of C, secondary importance. Properties rated C are not historical resources under CEQA and do not have protected status unless the City of Oakland takes further action to list them as local landmarks.*
>
> *The project area therefore does not appear to contain historical resources as defined in the CEQA Guidelines (California Code of Regulations §15064.5), or local historic resources as defined in the Oakland General Plan Historic Preservation Element.*

After reviewing the report and supporting materials, ESA respectfully disagrees with this assessment of the LH&A designed landscape for the following reasons, which are explained in greater detail in subsequent sections of this proposal.

1. The evaluation notes that the park contains many signature elements of LH&A's designs but concludes that it is a minor work of the well-regarded firm and does not rise the same level of artistic achievement as other works by the firm in other cities. It does not consider the park within the context of Oakland's park designs or LH&A's other local designs. Because few examples of the firm's work remain in Oakland and because this park has many signature elements that are associated with LH&A, ESA believes that it should be considered eligible for listing on the California Register at the local level.

2. The evaluation applied the Special Consideration for Historical resources achieving significance within the past fifty years.[1]. The resource was completed in 1972 and is currently 51 years old. This special consideration no longer applies, and the resource requires re-evaluation under the standard set of criteria for listing in the California Register.

3. ESA disagrees with the assessment made to OCHS items A1, A3, A6, and B18. In all cases additional points would result. The resulting change in points would warrant consideration of Estuary Park as a B-ranked local resource and thus qualify it as a historic resource for the purposes of CEQA.

Criterion 3 – Design

The report presents contextual information for both the firm of Lawrence Halprin & Associates (LH&A) and for development of Estuary Park. The historic context establishes that Estuary Park, as it appeared in 2018, was constructed largely as planned and as shown on the design and construction documents presented in the report. It also notes that Satoru Nishita served as Principal-in Charge for the project. The park was originally conceived as part of a "20-acre waterfront park" that would serve as "the terminus of a pedestrian promenade system linking from Lake Merritt to Jack London Square."[2] In 1970, the park was included in promotional material by LH&A which the report notes "suggests that the firm initially hoped that Estuary Park would become another one of their signature projects."[3] Estuary Park represents the only phase of that initial design to be constructed.

The report then presents several reasons that Estuary Park should not be considered eligible for inclusion in the California Register.

1. "The distinctive characteristics of Estuary Park include the arbor and trellis structure, promenade, stepped shoreline edge, and fishing pier, and represent concepts and practices that were typical of modernist landscape architecture from the period 1960-1980."[4] The reports then concludes that because the features were executed in "typical materials for the period, primarily wood and concrete, and nothing about their method of construction appears to be unusual." The use of common materials is presented as a reason the park should not be considered eligible. As a public park, use of wood and concrete is common, as the

[1] Office of Historic Preservation (OHP), *Technical Assistance Series #7: How to Nominate a Resource to the California Register of Historical Resources,* September 2001, p.12, https://ohp.parks.ca.gov/?page_id=21238, accessed September 15, 2022.

[2] Archaeological/Historical Consultants, *Estuary Park Renovation & Expansion Project: Cultural Resources Evaluation Report,* prepared for Hargreaves Associates, November 2018, p.15.

[3] Archaeological/Historical Consultants, p.15.

[4] Archaeological/Historical Consultants, p.25.

report states. However, many LH&A designs were executed in concrete and wood *because* they are common materials found in public parks, are economical, and are widely available.

2. The report includes comparative analysis with other LH&A designs from this time concludes that:[5]

> *Estuary Park features some of LH&A's typical design characteristics. Steps descending to or through water are common in many of their projects, including Justin Herman Plaza in San Francisco (1966) or Freeway Park in Seattle (1970). The firm had a strong interest in trellises and aerial structures, as seen at Cowell and Stevenson Colleges (UC Santa Cruz, 1963), Portland Center (Portland, OR, 1966), or Manhattan Square Park (Rochester, NY, 1971). The firm also had a strong interest in the revitalization of spaces affected by freeways […]*
>
> *[…] In general, the approaches used at Estuary Park are of a piece with LH&A's practice (1960-1976).*

   Next, it presents an argument that Estuary Park lacks "the notion of *sequence*, where users of a space are lead through a series of spaces in one more logical orders."[6] This is due to the fact that it represented the first phase of a larger vision of connecting parks. While this is true, the number of character-defining features of LH&A designs from this period greatly outweighs the lack of *sequence*.

   When considering the concept of *sequence,* the current park is connected via the Bay Trail, to adjacent linear waterfront parks to the north (to Jack London Square). While constructed later and not included in the LH&A design, the park today does have some sense of transition between Estuary Park and neighboring public spaces.

3. The analysis fails to consider Estuary Park within the context of park design in the City of Oakland, or even of other LH&A works in Oakland and the East Bay. While it might not have been "cited in the abundant academic literature on LH&A and modernist landscape design," Estuary Park is a rare—and possibly the only public—example of LH&A's work in Oakland.[7] The report does not consider rarity at the local level.

4. The evaluation contains no discussion of association with Satoru Nishita, a master designer in his own right. Among his body of work are several major collaborations in the immediate geographic context to Estuary Park (i.e., Jack London Square, BART, Master Plan for the Eastbay Shoreline), all of which post-date the construction of the park.[8] Association with Nishita, as well as the possible influence that Estuary Park may have had on his later work in the area, warrants further exploration.

Estuary Park is associated with both a master landscape architecture firm, LH&A, and a master landscape architect, Satoru Nishita. While it may not be represented in the scholarly records regarding LH&A's entire body of work, it appears to be a rare and representative example of LH&A's work in the City of Oakland. The fact that later phases of the design were not funded does not diminish the quality of the design that was implemented. It

[5] Archaeological/Historical Consultants, p.26.

[6] Archaeological/Historical Consultants, p.26.

[7] Archaeological/Historical Consultants, p.26.

[8] Ann E. Komara, "Pioneer Information: Satoru Nishita (1927-2013)," *The Cultural Landscape Foundation,* www.tclf.org/pioneer/satoru-nishita?destination=search-results, accessed September 14, 2022.

remains both a whole design as well as the prototype for possible future park expansion. It is for these reasons that ESA recommends Estuary Park as eligible for listing on the California Register under Criterion 3 (Design) at the local level.

Application of Special Criteria Consideration for Historical Resources Achieving Significance Within the past 50 Years

The California Register generally applies a 50-year threshold for listing. Resources less than 50 years of age may require further consideration "in order to understand the historic importance of a resource."[9] The 50-year mark is generally used to allow for "sufficient time […] to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than fifty (50) years old may be considered for listing on the California Register if it can be demonstrated that sufficient time has passed to understand its historical importance."[10] However, following guidance from the OHP, 45-years is used as the general age-threshold in recognition that "there is commonly a five year lag between resource identification and the date planning decisions are made."[11] It is this guidance that is being referenced in the report when it notes that "[in] addition to meeting one of the four Criteria of Significance, the property must retain historic integrity (defined below), and it must be 45 years old or older (except for rare cases of structures of exceptional significance)."[12]

Estuary Park opened in 1972 and was therefore 46-years old at the time it was evaluated in 2018. The report concluded that "the park reflects only some of the design principles typical of LH&A's practice, has not received scholarly attention, and is a minor example of many surviving works by the firm in Northern California, Estuary Park does not appear to possess the exceptional significance required for it to be eligible for [listing on the California Register] under Criterion 3 as a property less than 50 years old."[13] Regardless of the evaluator's perspective on the applicability of the Special Criterion in 2018, Estuary Park is now 51 years old. Application of any special considerations for age are no longer valid and a re-evaluation of the park under conventional considerations is warranted.

ESA agrees that Estuary Park is not exceptional within the canon of LH&A's designs. However, LH&A's influence within the modern landscape design movement is well documented. This fact is acknowledged in the report.[14] Even in 2018, the body of scholarly work would satisfy the special criterion requirement that "sufficient time has passed to understand [the resource's] historical importance."[15] Using the standard consideration of eligibility, ESA recommends Estuary Park as eligible for listing on the California Register under Criterion 3 for the reasons stated in the previous section of this document.

---

[9] OHP*, Technical Assistance Series #7,* p.12.

[10] California Code of Regulation, Chapter 14, section 4852(d)(2).

[11] OHP, *Instructions for Recording Historical Resources,*" March 1995, p.2, https://ohp.parks.ca.gov/pages/1054/files/manual95.pdf.

[12] Archaeological/Historical Consultants, p.24; The "exceptional significance" statement references the National Register Criterion Consideration G: Properties that Have Achieved Significance Within the Past Fifty Years. The California Register and the National Register have many similarities, including additional guidance for addressing potential resources from the more recent past. However, it should be noted that the California Register does not use this specific phrase.

[13] Archaeological/Historical Consultants, p.26-27.

[14] Archaeological/Historical Consultants, p.26-27.

[15] OHP, *Technical Assistance Series #7,* p.12.

The period of significance for the park is 1972, the date when it first opened to the public. Character-defining features include those elements from the original design that remain. This includes:

- Zig-zagging concrete stairs that provide waterfront access;
- Cylindrical concrete bollards with incised line at the top of the stairs;
- Wood trellis supported by concrete columns;
- Custom made, wood picnic tables and benches, constructed of heavy timber;
- Allay of Plane trees;
- Raised concrete platform for the trellis, including its water-facing concrete wall and integrated wood benches;
- Size, location, and dimensions of the observation platform at the western end of the alley;
- Circular, raised concrete planter at the east end of the alley, (formerly containing a large-scale art installation);
- General linear and geometric form of the park with elements arranged on a grid. This contrasts with the irregular shoreline outside of the park.

OCHS Tally Form

The OCHS uses a complex evaluation methodology developed in 1993 (Appendix C) and adopted into the City of Oakland General Plan as part of the Historic Preservation Element. It presents five areas for consideration: Visual Quality/Design (A), History/Association (B), Context (C), Integrity (D), and Reversibility (E). Each area has specific, numbered characteristics that are then scored. A total numeric score is calculated and used to determine the historic resource status for the subject building. ESA disagrees with several scores assigned by the report to Estuary Park.

A1: Exterior Visual Quality/Design

A1 is defined as the "quality of form, composition, detailing, and ornament measured in part on originality, artistic merit, craftsmanship, sensitivity to surroundings, and overall visual quality." The guidance for ranking this item provides three points for consideration:[16]

- Applied to natural features as well as to man-made features;
- A "'G" rating is appropriate for features which have any clearly identifiable visual or design value; and
- An "E" rating is appropriate for features which based on exterior visual quality along appear eligible for the National Register of Historic Places.

The report ranks Exterior Visual Quality as G (Good) with a corresponding numerical score of 4. ESA respectfully disagrees with this assessment. The design of the various elements in Estuary Park (trellis, waterfront stairs, planting beds, benches, etc.) are clearly parts of cohesive and well-designed plan, and they rise above the sorts of design that the second bullet point references. They are not only part of a purposeful planting and

[16] City of Oakland, *Historic Preservation Element: Appendix C - Oakland Cultural Heritage Survey Evaluation System*, 1993, p.5.

orientation scheme, but they represent an unusual level of design attention typically applied within public parks. While ESA does not find that they rise to a visual quality that warrants eligibility for listing on the National Register (third bullet point), the Exterior Visual Quality warrants a ranking above G (Good). For these reasons, ESA would recommend a ranking of VG (Very Good) with a corresponding numerical score of 8.

A3: Construction

A3 is defined as the "significance as example of a particular structural material, surface material, or method of construction." The guidance for ranking this item provides three points for consideration:[17]

- Examples of "especially fine" construction methods or structural materials include those which successfully address challenging structural problems, or which are treated as visible design elements that contribute significantly to the feature's overall design quality, or which exhibit fine craftmanship;
- Surface materials should be treated under this criterion only according to their type and according to the level of craftmanship which they represent. The contribution of surface materials to a feature's design quality should be treated in [A1] (Exterior); and
- Examples of "especially fine'" surface materials include stone (granite, marble) and polychrome terra cotta.

The report ranks Construction as FP (Undistinguished) with a corresponding numerical score of 0 and notes that construction is "not significant as an example of concrete/wood construction." Appendix C describes this ranking for A3 as "of no particular interest." ESA respectfully disagrees with this assessment. While the materials themselves are simple and common (i.e., wood, concrete, decomposed granite, etc.), they are used in unusual ways that qualify as visible design elements that significantly contribute to the overall design (first bullet point.) The concrete steps follow the shoreline, providing a geometric and orderly contrast to the irregular shape of the site. The benches and picnic tables are unusual and clearly designed specifically for this site. The trellis, while constructed of ordinary materials (i.e., wood and concrete), uses its structure as the primary design. There is no cladding to hide the framing. It is for these reasons that ESA would give Construction at least a ranking of G (Good). Appendix C describes a G (Good) ranking for A3 as a "good example if many survive of any material or method not generally in current use (such as brick masonry or balloon framing) or of a highly durable method of construction (steel frame, reinforced concrete, etc.)."[18] Estuary Park uses common materials in unusual ways, and in methods not generally in current use within the City of Oakland. The G (Good) ranking correspond to a numerical score of 3.

A6: Supportive Elements

A6 is defined as the "fences, walls, outbuildings, trees, landscaping, and other secondary elements which are accessory to the feature being evaluated and are supportive of or enhance the feature's notable qualities: also stores, institutions, and other tenants located within buildings." The guidance for ranking this item provides two points for consideration:[19]

[17] *Appendix C*, p.6.
[18] Ibid.
[19] *Appendix C,* p.7.

- A supportive element should generally be considered "especially fine or unusual" if the element is notable enough to warrant a separate evaluation; and
- A long-established non-residential tenant or occupant rated as least "G" as a supportive element and can be rated higher if the tenant or occupant has special significance as measured by [B7] (Person/Organization).

The report ranks Supportive Elements as FP (Undistinguished) with a corresponding numerical score of 0 and notes that there are no supportive elements. ESA respectfully disagrees with this assessment. The landscape elements in the park are both biological and manmade. Elements such as the trees are integral to the design of the park and are original features. Other plantings have changed throughout the years but still contribute to the overall experience in the park. As of 2023, the large circular planter formerly housing *Holistic Image* was planted with drought-tolerant plants, and several new features unrelated to the original design have been installed (i.e., decorative bike rack, art installation resembling a vertical map). It is for these reasons that ESA would rank A6 as G (Good). Appendix C describes this ranking for A6 as "supportive elements, but none which are especially fine or unusual." The G (Good) ranking correspond to a numerical score of 2.

B7: Person/Organization

B7 is defined as the "Association with the life or activities of a person, group, organization, or institution that has made a significant contribution to the community, state, or nation." The guidance for ranking this item provides four points for consideration:[20]

- The significance of the person, group, organization, or institution must itself be established before this criterion is applied. Such significance may be at either the local, state, or national/international levels;
- "Intimately connected" will often mean that the feature was intimately associated with an important period in the life or activities of the person, group, organization, or institution;
- A person/organization of primary importance as the local level will have played a decisive and far reaching role in the development of Oakland as a community […] A person/organization of secondary importance at the local level will have played a major or leading (but not decisive) role in the development of Oakland as a community or a decisive role in the development of a particular neighborhood or of a particular ethnic group or segment of the community […] A person/organization of tertiary importance at the local level will have played a prominent role (but not a real leadership role) in the development of a particular neighborhood or of a particular ethnic group or segment of the community[…] The state and national/international levels are treated similarly; and
- If the feature has been significant altered since the time of its association with the person/organization and if such alteration is not treated in [Area] D, then the person/organization will be considered to be only "loosely connected" with the feature.

The report ranks Person/Organization as VG (Very Good) with a corresponding numerical score of 10 with the following note: "organization of primary importance (Halprin & Associates) [*sic*], loosely connected to site." ESA respectfully disagrees with this assessment. LH&A is intimately connected to the site as it is the firm who completed the design, and Estuary Park was constructed according to that design with minor adjustments.

[20] *Appendix C*, p.7.

Additionally, the Principal-of-Record for the park was Satoru Nishita, a master designer who went on to develop several influential plans and designs for the Oakland waterfront as noted above. That would qualify him as a person of primary importance intimately connected with the property. For these reasons, ESA would recommend a ranking of E (Excellent) with a corresponding numerical score of 20.

Summary

When accounting for the changes in valuations described above, the revised Preliminary Total for Estuary Park is 50 points. Deductions for integrity total -10.2 points. The new Adjusted Total Score is 39.8 points, or a B (Major Importance) ranking. If restored, the contingency rating for Estuary Park is 42.80 points, or an A (Highest Importance). A revised tally sheet is included in **Attachment B**.

Conclusion

In 2018, Estuary Park was evaluated as a historic resource and recommended ineligible for listing in the California Register because of a lack of exceptional significance. It was further evaluated with an OCHS score of 24.5, qualifying it as a resource of Secondary Importance (C), and it was therefore not eligible as a historic resource for the purposes of CEQA. ESA has reviewed this report and the supporting documentation and respectfully disagrees with these findings.

Estuary Park is one of the best, and only, examples of the work of master landscape architecture firm, Lawrence Halprin & Associates within the City of Oakland. It is also associated with master designer Satoru Nishita, who directly contributed to the revitalization planning for the Oakland Estuary from the late 1960s through the 1980s. While it has suffered from lack of maintenance, it retains integrity and is clearly recognizable as representative of the original design that opened to the public in 1972. Its age does not warrant additional scrutiny.

In conclusion, ESA recommends Estuary Park eligible for listing in the California Register under Criterion 3 as a notable and rare example within Oakland of the work of LH&A and for its direct association with master designer Satoru Nishita. The period of significance is 1972, the date the park opened to the public. Additionally, ESA recommends the park as eligible for listing as a City of Oakland Landmark, with a total OCHS score of 39.8 points, qualifying it as a resource of Major Importance (B) with a contingency rating that would qualify it as a resource of Highest Importance (A).

Attachment A: Cultural Resources Evaluation Report (2018)

Measure DD

Estuary Park
renovation & expansion project

Cultural Resources Evaluation Report

November 26, 2018

Prepared for: Hargreaves Associates
Prepared by: Archaeological/Historical Consultants

CITY OF OAKLAND

HARGREAVES ASSOCIATES

Estuary Park Expansion and Renovation Project

Cultural Resources Evaluation Report

Prepared by
Archaeological/Historical Consultants
609 Aileen Street
Oakland, CA 94609

Prepared for
Hargreaves Associates
315 Bay Street, Suite F13
San Francisco, CA 94133

November, 2018

Table of Contents

Introduction and Summary of Findings

The City of Oakland is proposing the of the Estuary Park Expansion and Renovation Project on Embarcadero West in Oakland, California (the Project). The Project includes the renovation of the existing 7-acre public park and expansion onto 4 additional acres. The park is bounded on the south by the Lake Merritt Channel, on the west by the Oakland Estuary, to the north by the Portobello condominium complex, and by Embarcadero West to the east (Figures 1 and 2).

Currently, the park is developed with the Jack London Aquatic Center (JLAC, built 2000), several landscape elements designed by Lawrence Halprin and Associates (built 1972), and several large-scale metal sculptures from the collection of the Oakland Museum (installed 1979-1982). The northwest part of the park is an undeveloped playing field. On the south side of the park, five floating docks and a concrete ramp provide public boat access to the Oakland Estuary. The 4-acre expansion area is a vacant parcel formerly home to a grocery warehouse and is currently fenced.

This report presents a historic context statement and historical resources evaluation of the project area under CEQA and Oakland Cultural Heritage Survey (OCHS) criteria. The project area is former marshland filled by dredge spoils in 1907. From 1907-circa 1960 it served as a lumber yard, and was redeveloped between 1968 and 1972 as Estuary Park. The JLAC was constructed in 2000 to expand boating opportunities in Oakland. The 4-acre expansion area was home to a Port of Oakland warehouse from 1955 to its demolition in 2014. The warehouse's last tenant was Jetro Cash and Carry grocery warehouse and restaurant supply.

The JLAC facility is too young to be evaluated, and the former Cash and Carry warehouse was found ineligible for the California Register of Historical Resources and the National Register of Historic Places (Hibna 2011). The park elements designed by Lawrence Halprin and Associates are less than 50 years old, and are minor works which were not completed to the original design. As filled land, the project area is very unlikely to contain prehistoric archaeological sites, and historic activities do not appear likely to have created historic archaeological deposits.

Assessment of the Halprin and Associates landscape elements under the OCHS evaluation gives them a rating of C, secondary importance. Properties rated C are not historical resources under CEQA and do not have protected status, unless the City of Oakland takes further action to list them as local landmarks.

The project area therefore does not appear to contain historical resources as defined in the CEQA Guidelines (California Code of Regulations §15064.5), or local historic resources as defined in the Oakland General Plan Historic Preservation Element.

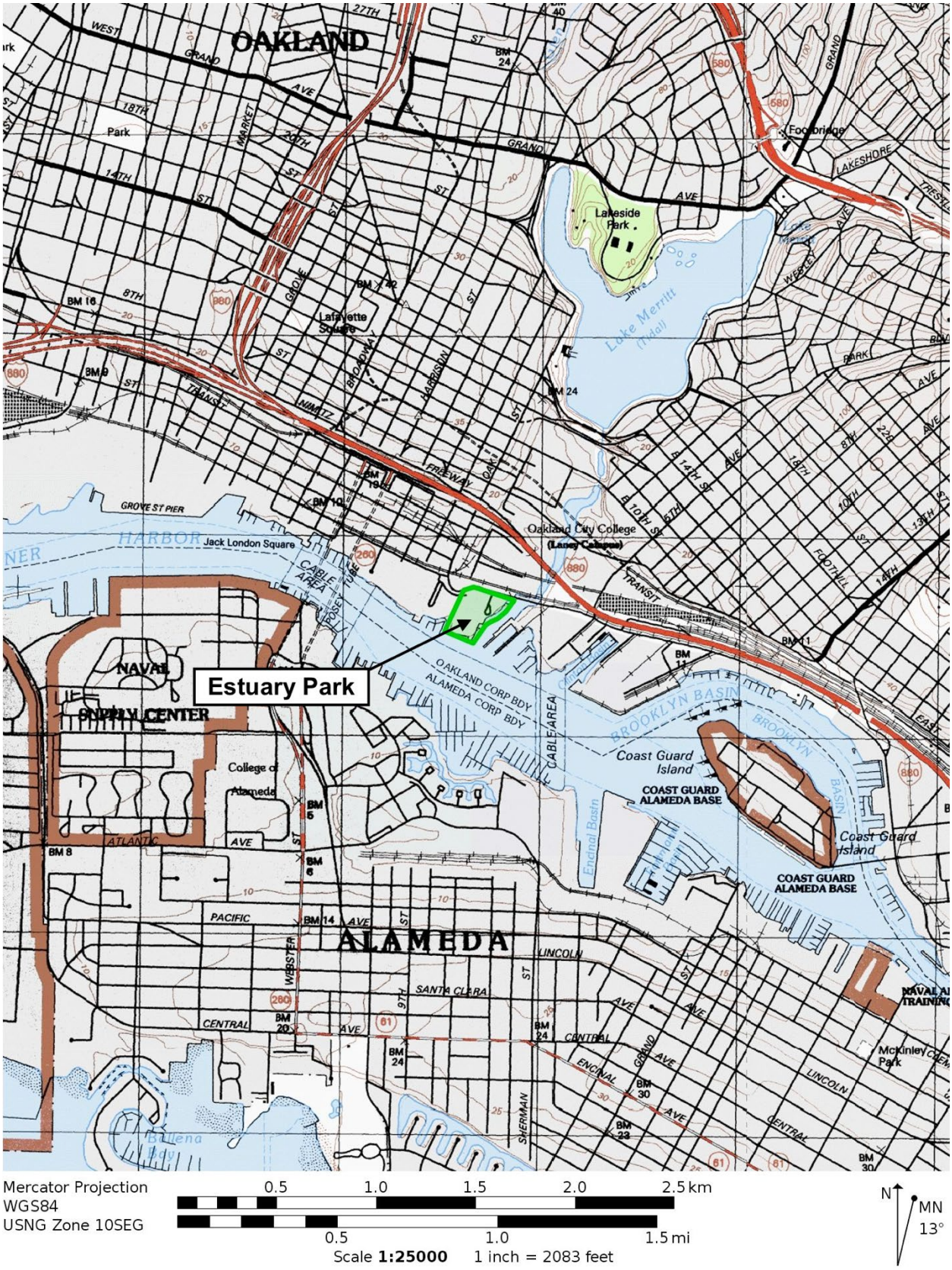


Figure 1: Location Map, Estuary Park

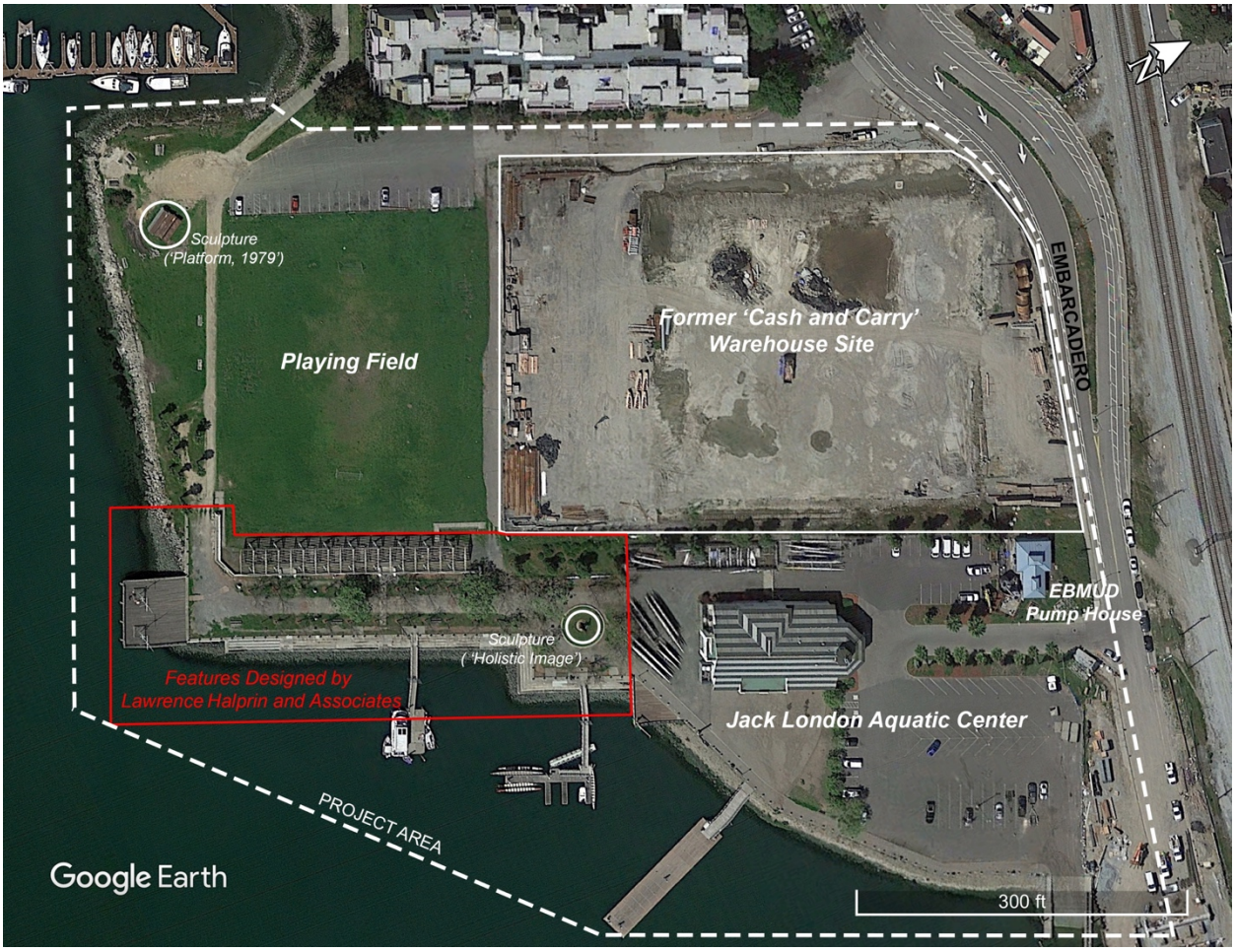


Figure 2: Project Area Map

Description of the Project Area

Currently, the 11-acre project area incorporates several distinct areas. Along Embarcadero West, a parking lot fronts onto the Jack London Aquatic Center (JLAC) complex, which includes a parking lot, a concrete boat ramp, two floating docks, and a two-story multi-use building. The JLAC building was built in 2000 and provides boat storage and classroom space for youth and adult rowing programs (Figure 3). Postmodern in style, the JLAC building is generally rectangular in plan. The building is covered with board-and-batten siding interrupted by a blank course just under the level of the gable. Five double doors open onto the south façade, each surmounted by a four-light transom window. Inside, the lower floor provides boat and equipment storage for rowing clubs. A five-sided office wing projects from the eastern façade, and is sided in stucco punctuated by large picture windows. This office wing is topped with a turret and decorative weather vane, and its form suggests a lighthouse when viewed from the east. The main entry to the office wing is on the east side and opens onto a foyer flanked by two offices, with stairs leading to the upper floor. The upper floor has additional office space and a large multi-purpose room which runs east-west along the length of the building above the boathouse. The multi-purpose room opens onto a roof deck on its south side and a small terrace with exterior stairs on its west.

Figure 3: Jack London Aquatic Center. Clockwise from upper right: East façade (office wing) from access drive; overview looking northwest from parking lot; south façade with doors to boat sheds; west façade with upper floor terrace and exit stairs.

North of the JLAC driveway, a stucco pump house with green metal roof stands near Embarcadero. The pump house belongs to EBMUD and was constructed in the late 1990s. At the southeast corner of the project, a concrete boat ramp is flanked by two floating docks (Figure 4).

Figure 4: Pump house (left) and boat ramp (right).

At the northeast corner of the project area, the former Cash and Carry warehouse site occupies four acres along Embarcadero West (Figure 5). The concrete warehouse building formerly on site was built in 1955 and demolished in 2014. This area is currently fenced off and used to store construction materials.

Figure 5: Former Cash and Carry warehouse site, looking northeast (at left) and southwest (at right).

In the southwest part of the project area are several landscape elements designed by Lawrence Halprin and Associates (LH&A) in 1968-1970 and built 1971-1972, concentrated in an area about 115 feet wide and 500 feet long (Figures 6-8). West of the JLAC, a small square plaza leads to a tree-lined promenade which extends westward along Lake Merritt Channel. The promenade is flanked by an elevated arbor to the north and a stepped descent to the water to the south.

Figure 6: The promenade. Clockwise from upper right: looking west along stepped shore edge; looking west along promenade; looking east from fishing pier; interface between promenade and trellis.

The promenade (Figure 6) is lined with plane trees (*Platanus acerifolia*) spaced 25 feet apart. The lines of trees are set in a strip of grass, and the walkway between them is surfaced with decomposed granite. On its south side, the promenade is connected to the Lake Merritt Channel by four one-foot high concrete steps that lead past a row of round bollards down to the waterline (Figure 7). Three small floating docks extend from the stepped shoreline edge. Two-sided wood benches face both the promenade and the waterfront steps. The promenade ends in a wood-decked fishing dock that provides views of the Oakland Estuary.

Figure 7: Pier and steps to water. Clockwise from upper right: fishing pier, looking west; stepped shoreline edge, looking west; stepped shoreline edge detail looking north; stepped shoreline edge detail looking south.

Figure 8: Arbor. Clockwise from upper right: overview, looking southeast; stairs up from promenade, looking north; picnic tables, looking west; structural detail.

The 33-foot wide arbor (Figure 8) is elevated four feet above the promenade, and is separated from it by a six-foot high retaining wall with two stairways providing access from the promenade. The main feature of the arbor is a helical wooden trellis structure approximately 20 feet high supported on two rows of nine concrete piers. The trellis runs the length of the arbor and houses a series of picnic tables in rustic wood.

The northwest part of the project area (Figure 9) is occupied by a multi-use field for soccer, team sports, and group picnics. The field currently has an uneven surface with sparse grass, and appears in poor condition. The shore in this area is edged by palm trees and concrete rip-rap fronting along the Oakland Estuary.

Figure 9: Playing field, looking south (left) and riprap on estuary edge, looking north (right).

Two large metal sculptures from the collection of the Oakland Museum are also located in Estuary Park (Figure 10). *Holistic Image* by Betty Gold was installed in 1979 and stands in the square plaza between the JLAC and the promenade (Accession Number A78.231). Michael Heizer's *Platform, 1979* (Accession Number A80.109, installed 1982) stands at the northwest corner of the project area near the Estuary shoreline. A third sculpture made of twisted strands of ferrous metal is located near *Platform, 1979,* but its authorship and date are not known to either the Oakland Museum or City of Oakland Staff (Zaremba 2018).

Figure 10: Holistic Image *(left) and* Platform, 1979 *(right).*

Research and Record Search

On August 20, 2018, the Northwest Information Center of the California Historical Resources Information System completed a record search for the project area and a 1/8-mile radius around it (NWIC File #18-0159).

Three studies have examined portions of the project area. Two of these were negative archaeological surveys (Chavez 1993, Chavez 2000), and the other was the Historic Property Treatment Plan for the Oak to Ninth Avenue Project (now called Brooklyn Basin; Jones 2013). Five other studies examined properties within 1/8-mile of the project area. Please see Appendix A for details.

No prehistoric cultural resources are known within the search radius.

One historic building, the former Cash and Carry grocery store (P-01-011645) was formerly located on the project area. This building was built circa 1955 as Port of Oakland Building G-203, and was a single-story wood-framed warehouse on a concrete slab foundation. It was used by Ford Motor Company as a tractor parts warehouse and later as a restaurant supply and grocery store (Carey and Co 2005). The building was found to be not eligible for NRHP or CRHR in a 2011 evaluation (Hibna 2011). The building was demolished in 2014.

The Lawrence Halprin & Associates landscape features at Estuary Park have not been previously recorded and were not reported in the record search.

Two resources are located outside the project area but within the search radius. These are the Western Pacific Railroad line (P-01-002190), which runs parallel and east of Embarcadero, and the Oakland Recreation Department Maintenance Shop (P-01-010824). The Western Pacific Railroad completed its line from Salt Lake City to Oakland in 1909, and opened the waterfront rail transportation complex known as the Western Pacific Mole in 1910. The line was acquired by the Union Pacific Railroad in 1982. Due to an extensive loss of integrity, the former Western Pacific facilities in Oakland were found not eligible to NRHP (Corbett and Minor 1997).

The Oakland Recreation Department Maintenance Shop at 11 Fourth Street is located approximately 500 feet north of the project area. A one and one-half story frame building with corrugated steel siding, it was built in the 1950s for the Oakland Recreation Department, then later used as an annex for Laney College's art department. The building is not eligible to the National Register or California Register (Kostura 1999).

A major source for the discussion of the landscape features on site is a report prepared by the Roma Design Group (2015), which was based on archival research at the Lawrence Halprin Collection at the University of Pennsylvania. In addition to the sources noted above, A/HC staff completed archival research at the History Room of the Oakland Public Library, the Earth Sciences and Environmental Design libraries at UC Berkeley, and in the Port of Oakland archives.

Historic Context

A Tidal Marsh

Though Estuary Park is 6 to 8 feet above sea level today, before 1907 the project area was marshland in the Oakland Estuary (Figure X). Before 1850, Lake Merritt was larger than it is today, and had a much wider channel to San Francisco Bay. South of the project area, the original shoreline stood near East 8th Street, and islets of saltwater marsh stood between Oakland and Alameda, which was then connected to the mainland. While no Native American settlements are known near the project area, traces of prehistoric occupation have been found in downtown Oakland, on the eastern side of Lake Merritt, and at several places along International Boulevard and East 12th Streets between Lake Merritt and Fruitvale.

At the time of historic contact, the Huchiun and/or Jalquin groups of Ohlone people lived near the project area. Huchiun territory extended from San Pablo Creek in Richmond at least as far south as Temescal Creek. The Jalquin people held territory along San Leandro Creek and the interior East Bay hills, and possibly farther north as well. The Huchiun spoke the Chochenyo dialect of the Bay Area Costanoan language, while Milliken believes that the Jalquin were bilingual, speaking both Chochenyo and Bay Miwok (Milliken 1995:243; Milliken et al. 2007:107; Golla 2007).

Ethnohistoric records do not identify which group held the land around the Lake Merritt Channel or Oakland Estuary; it is likely that boundaries were fluid and that both groups would have used both land and water resources near the project area. Hunters and fishers would have pursued birds, waterfowl, fish, and shellfish in Lake Merritt and on the Oakland Estuary, which were collected with nets, weirs, fishhooks, and arrows. The marsh also held important plant resources, especially reeds and grasses for basketry (Milliken 1995:16-18; Levy 1978).

Lumber Shipping on the Oakland Estuary

Around 1907, the Sunset Lumber Company purchased an area of 19.5 acres of "desolate salt marsh located on the south side of the Southern Pacific Company's First street track" (*Oakland Tribune* 1907:28b). Sunset Lumber Company had been formed three years before, in 1904, when the Charles Nelson Company bought out the Puget Sound Lumber Company's interests in Oakland, East Oakland, and Alameda yards and incorporated as the Sunset Lumber Company (*Oakland Tribune* 1904:10). Sunset Lumber's main offices were located at 1st and Clay streets, and their stock was primarily Puget Sound pine, Humboldt redwood, kiln-dried Douglas Fir, and red and white cedar (*Oakland Tribune* 1904, 1905). James Tyson, a Piedmont millionaire, was president of the company (*Oakland Tribune* 1915; Husted 1907:1027).

Oakland had been a lumber port since the 1850s, receiving lumber shipped in by sea from northern California and the Pacific Northwest. Thanks to its location on the east side of the bay and proximity to railroad lines, the city became the major lumber distribution point for all of interior California, especially after the 1906 earthquake damaged San Francisco's wharves (*Oakland Tribune* 1907a). This made the project area, which lay between the Western Pacific Railroad mainline and the Oakland Estuary shipping channel, ideal for Sunset Lumber Company's transportation hub (Figure 11).

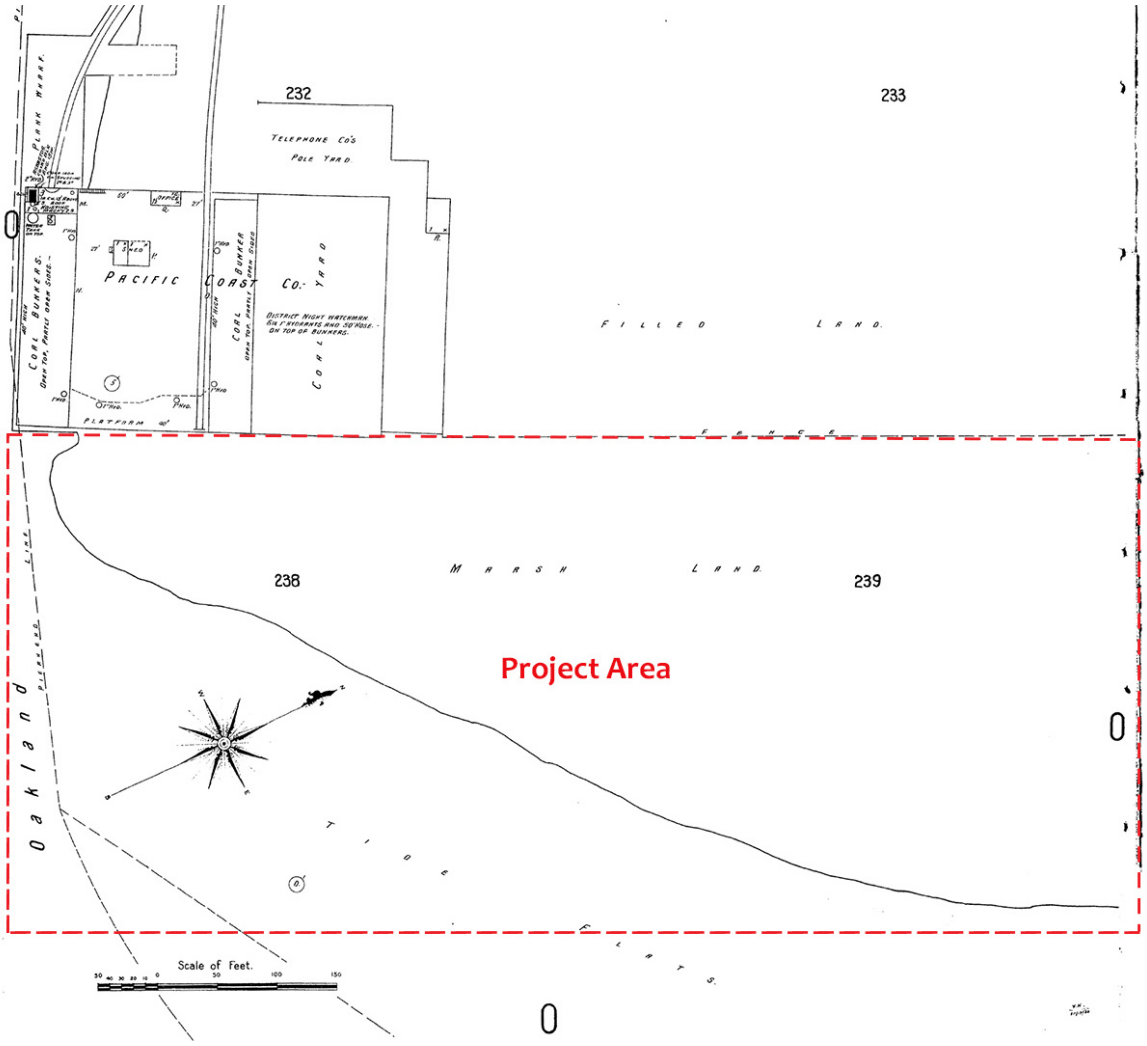
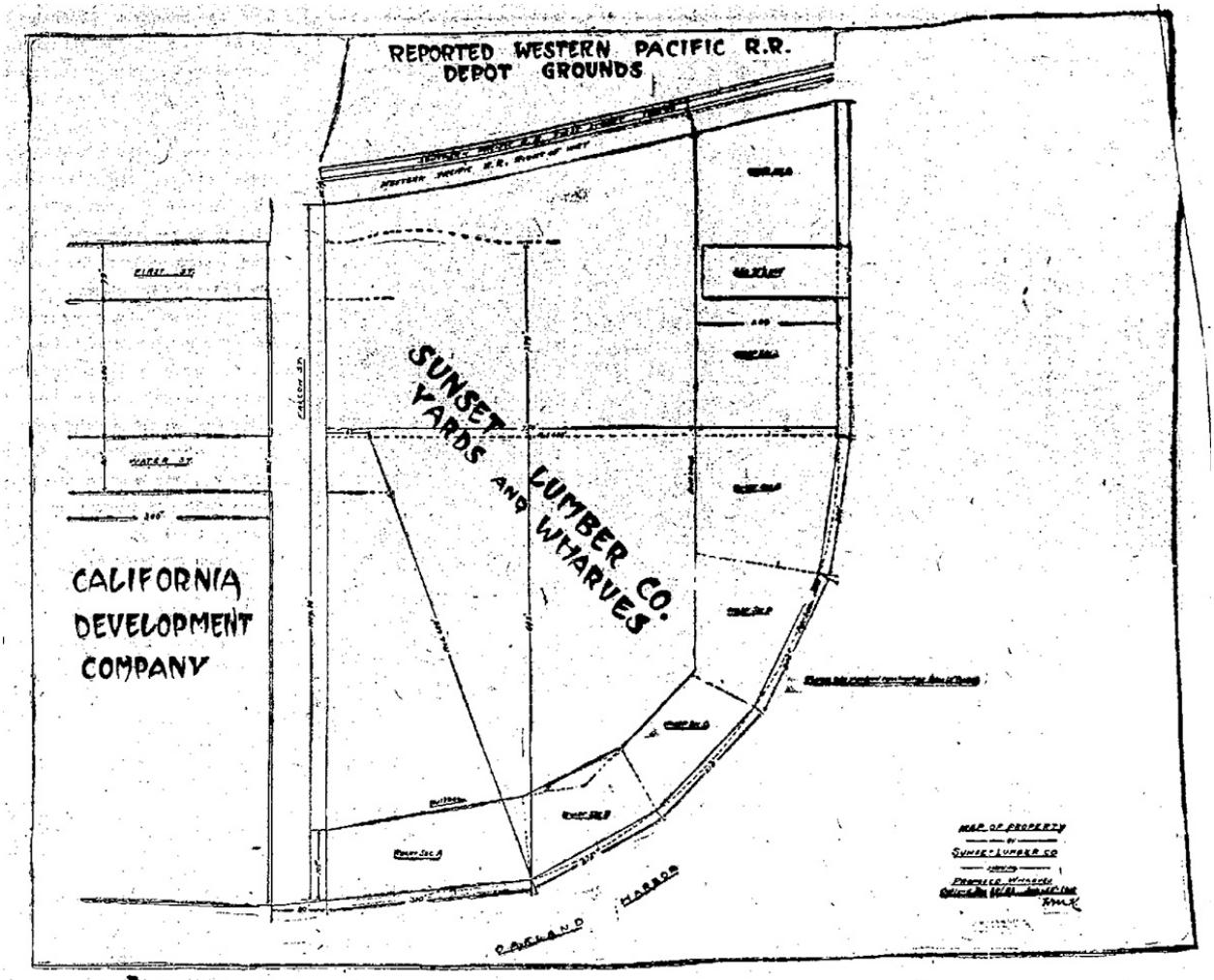


Figure 11: Project Area in 1902 (Sanborn Map Company)

But first, the company had to transform the marsh. In 1907, Sunset Lumber dredged the harbor front along the pierhead lines to deepen the channel to 19 feet at low tide and used the spoils to raise the marshland, filling the current area of Estuary Park. Then they built a lumber yard, wharves, a dock, and spur lines for the Western Pacific and Southern Pacific railroads (Figure 12). The wharves extended the length of the south and west sides of the project area. They could moor nine ships, and were intended for general commercial use as well as that of the lumber company (*Oakland Tribune* 1907b). Sunset Lumber Company also installed an electric generating plant on the yard and a saltwater fire system "consisting of six-inch mains, regulation hydrants and complete apparatus" (*Oakland Tribune* 1910). The purchase and development of the property cost an estimated $300,000 (*Oakland Tribune* 1907b).



GROUND PLAN OF SUNSET LUMBER COMPANY'S NEW WHARVES, DOCK AND YARDS BETWEEN FALLON STREET AND THE NORTH ARM OF THE ESTUA RY AND SOUTH OF FIRST S TREET TRACK.

*Figure 12: Sunset Lumber Company's Wharves (*Oakland Tribune *1907a)*

The 1911 Sanborn Fire Insurance Map (Figure 13) shows the Sunset Lumber Company operations on the project area a few years later. At this time, the entire yard rested on plank boardwalks two feet above the filled ground. The yard had 21 lumber piles, each 18 feet high and separated by planked drives; the piles ranged from 160 to 215 feet long and 25 to 35 feet wide. In the center of the yard was the planing mill, an open-sided one-story frame structure 20 feet high and approximately 100 by 150 feet in plan with a plank floor. Next to the planing mill was an engine building 40 by 75 feet in size, housing two boilers and a 450-horsepower engine. West of the engine building was a finished lumber shed with one open side. North of the lumber shed was a building containing a one-story blacksmithy on its south side and a two-story carpentry shop on the north side. Just north of this building was a 30,000-gallon water tank, elevated 60 feet above the ground and a deep well pump. The main office was in a two-room building at the northwest corner of the lot near the train tracks. Another office was near the center of the yard, and another near the wharf, and two other small buildings were located southwest of the planing mill (Sanborn 1911).

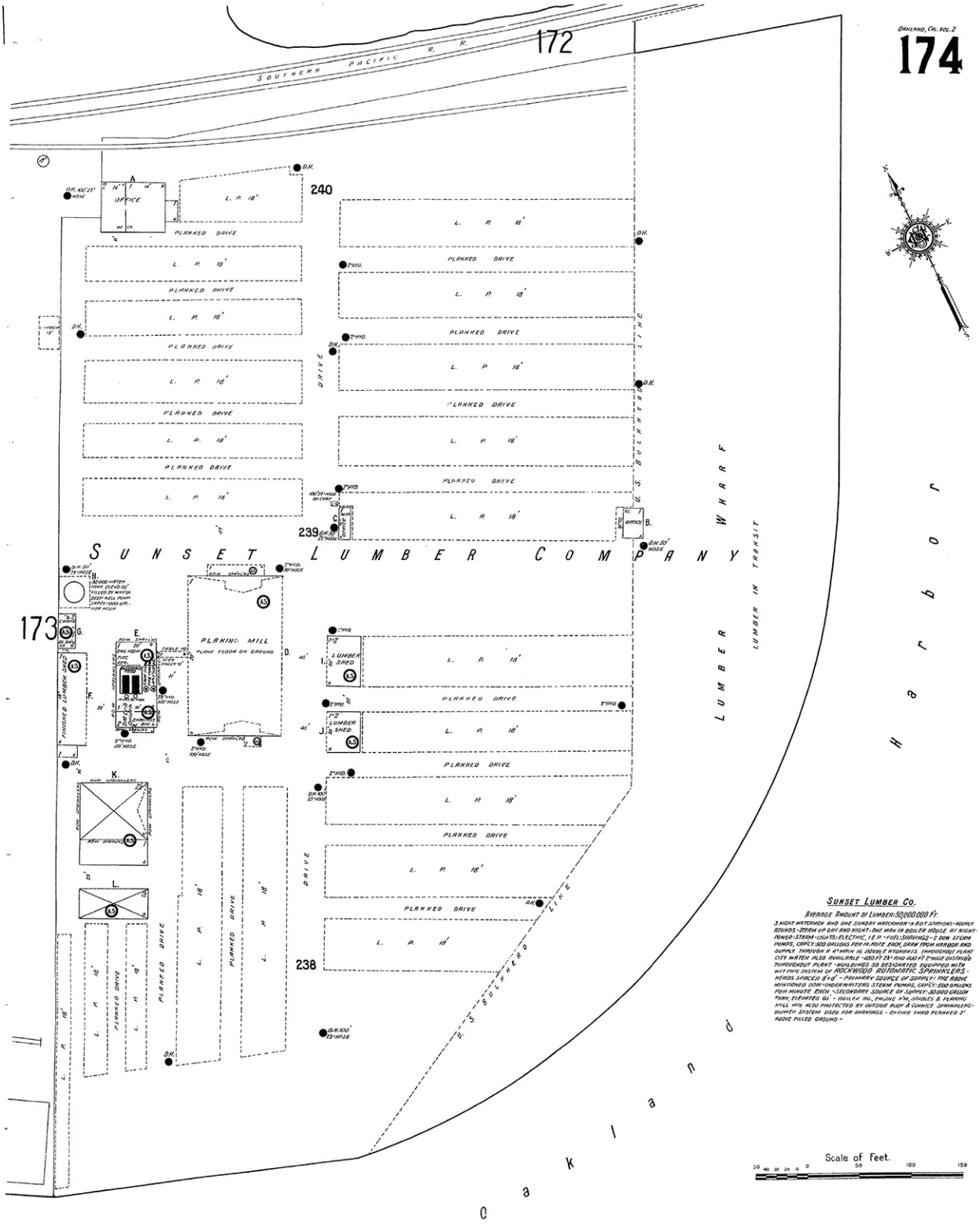


Figure 13: Map of Project Area, 1911 (Sanborn Map Company)

By 1923, Sunset Lumber claimed to be among the largest retail lumber yards in the world and that "over ten million feet of every kind and grade of lumber passes through our yard every month" (*Oakland Tribune* 1923). A 1929 aerial photo of the company's operations shows large wooden wharfs extending from the land side onto the estuary (Figure 14). A barge loaded with lumber sits at anchor next to a four-masted schooner. Most of the area is taken up with lumber piles, and several open-sided buildings sit on the north end of the property. The southwest portion is occupied by a long building with a large sign saying 'Sunset Lumber Co.' (Anonymous 1929). In 1934 Sunset Lumber was still the largest lumber firm in the East Bay (Jones 1934:124), but it disappeared from city directories by 1938, possibly a victim of the downturn in building during the Great Depression.

Figure 14: Sunset Lumber Company, 1929

The lumber wharves along the eastern side of the project area were no longer in use by 1940, when the wharves were included in the Port of Oakland's lease to the Hurley Marine Works, which operated a drydock facility for the US Navy at foot of 5th Avenue from around 1940 into the 1960s (Military Museum 2018). Though the wharves adjoining the project area were under this lease, the project area itself continued to be used as a lumber yard by other companies. In aerial photos from 1947 and 1953, it is evident that the Sunset Lumber Company buildings had been demolished and replaced with smaller buildings (Sunderland 1947, 1953). In the northwest corner of the yard is a one-story building with a lumber shed with wood posts, concrete and earth floors and a small office attached. The 1950 Sanborn map notes that this building belonged to the Scammell Lumber Company. South of the Scammell office were two one-story buildings – an office and adjacent lunch room – labeled Monarch Lumber Corporation. East of these two buildings was an automobile repair shop with a concrete floor. At the southern end of the yard is a lumber shed with earth floor and one side open belonging to Monarch Lumber. Scattered lumber piles occupy the eastern and southern parts of the yard. Scammell and Monarch must have been receiving their lumber by rail,

since the aerial photos from this period show the lumber wharfs in evident disrepair, with large sections of the decking missing and underlying piers exposed (Figure 15; Sunderland 1953).

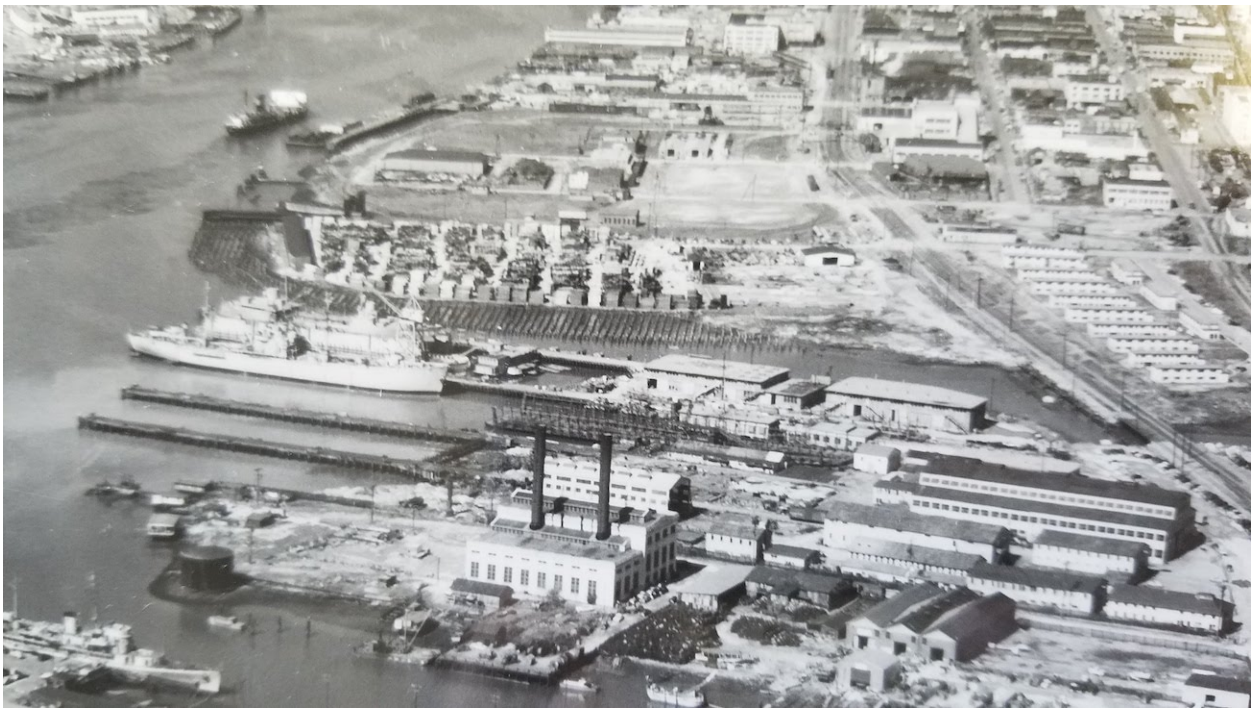


Figure 15: Project Area in 1953 (middle ground). Note decayed state of lumber wharves (Sunderland 1953).

In 1955 Port of Oakland Building G-203 was built on the northern portion of the project area at 105 Embarcadero (Figure 16). It was a single-story, reinforced concrete warehouse on a slab foundation, with a multi-barrel vault roof covered in asphalt. The building had eight loading docks on its main (west) façade. The building's only windows were roof-mounted skylights. The building was used by Ford Motor Company as a tractor parts warehouse into the mid-1970s. Jetro Cash and Carry and operated a restaurant supply warehouse and discount grocery store in the building from the 1990s until 2014, when the building was demolished (Carey and Co. 2005; Hibna 2011).

Figure 16: Building G-203 in 2011 (Hibna 2011).

Change on the Waterfront

The 1960s saw major changes to the Oakland waterfront. The Port of Oakland was an early innovator in containerized shipping, and opened a new terminal along the old Southern Pacific mole at the end of 7th Street in 1961. The Seventh Street terminal could accommodate larger ships with deeper drafts, and the first containers on the West Coast were unloaded there in 1962. Containerization gave Oakland a competitive advantage, making it the second-largest container port in the world by 1968 and rapidly overtaking San Francisco as a shipping destination.

However, the new prominence of the northern terminals reduced demand for maritime activities on the lower part of the Estuary. The old waterfront, which had been further separated from downtown by the construction of the Eastshore Freeway in the early 1950s, was increasingly isolated and visibly decrepit, with decaying piers and wharves (Schwartzer 2014:11). During the 1960s, the City of Oakland sought to revitalize the former industrial areas near the waterfront with makeovers at Jack London Square, construction of the first condominium complex – Portobello – north of the project area, and the development of Peralta College (now Laney College) in the area between Lake Merritt and the waterfront. Part of the redevelopment vision was a chain of parks that would link Jack London Square to Peralta College and Lake Merritt along the Lake Merritt Channel. This led the City of Oakland to propose a new park on the former Sunset Lumber property in 1967.

Lawrence Halprin and Associates

In early 1968, Lawrence Halprin and Associates (LH&A) was engaged by the City and Port of Oakland to design what was initially called the Lake Merritt Channel Park. LH&A was then at its peak, having completed since 1960 over a dozen landscape designs that have come to be recognized as iconic designs of this era. These included Ghirardelli Square; Embarcadero Plaza; Sea Ranch; Sproul Plaza (UC Berkeley); Cowell, Crown, and Stevenson Colleges (UC Santa Cruz); Custom

House Plaza (Monterey); the Open Space Sequence (Portland); the Salk Institute (La Jolla); and the California State Fairgrounds (Sacramento) (Halprin 1986).

Lawrence Halprin, a native of New York City, spent three years working on a kibbutz in Palestine before earning degrees in horticulture from the University of Wisconsin and landscape design from Harvard's Graduate School of Design. After serving in the US Navy during the Second World War, Halprin opened his own office in San Francisco in 1949, and took on partners – later including UC Berkeley graduate Satoru Nishita – beginning in 1951, forming Lawrence Halprin and Associates. He was one of a generation of mid-century landscape architects including Roberto Burle Marx, Garrett Eckbo, Thomas Church, and Dan Kiley (designer of the Oakland Museum gardens) who broke with the Classical and Beaux-Arts traditions to embrace forms of Modernist theory (Schwartz 1993).

Halprin's practice was inspired by collaboration with his wife, the choreographer Anna Halprin. The two developed a collaborative design process known as the RSVP Cycles, which incorporated study of movement, scale, and spatial experience to inform landscape design. The structures and processes of nature were a key element of Halprin's designs, which often incorporated water; he and his firm were pioneers in introducing ecologically-informed designs into urban spaces. In doing so, "they reimagined a public realm for American cities that had been cleared by federal urban renewal programs and abandoned for new suburban developments" (Meyer 2009:126). As another scholar noted, "Halprin attempted to elevate habitual movement through the city to a kind of ceremonial procession" (Hirsch 2014:70).

Lawrence Halprin and Associates was dissolved in 1976; Halprin reestablished a solo practice in 1978 and took on major commissions such as Levi's Plaza (San Francisco), the Rovah Gardens (Jerusalem), Stern Grove (San Francisco), the Franklin Delano Roosevelt Memorial (Washington DC), and the Yosemite Falls trail (Yosemite National Park). Many of his former associates in LH&A were important landscape architects in their own right, including Satoru Nishita, who was principal-in-charge of the Estuary Park project.

Nishita was born in California and spent part of his adolescence in a Japanese internment camp in Arizona before enlisting in the US Army. After his discharge in 1947, he earned a degree in landscape architecture from the University of California at Berkeley. After a student internship with Eckbo, Royston & Williams, Nishita joined LH&A in 1951 and became a principal in 1964. He was lead landscape architect for the Portland Open Space Sequence, Skyline Park (Denver), the Nicolett Mall (Minneapolis), and the UC Davis Master Plan. After the closure of LH&A, Nishita went on to form CHNMB Associates, which later created the 1985 Master Plan for Jack London Square (TCLF 2018).

Building Estuary Park, 1968-1972

LH&A described the initial Estuary Park project as a

> master plan for a 20-acre waterfront park at the junction of Merritt Channel and Oakland Estuary. Visually oriented to the maritime activities of the harbor, the park provides recreational opportunities for fishing, boating, and community spaces. The park is the terminus of a pedestrian promenade system linking from Lake Merritt to Jack London Square.

Halprin and Associates' early concepts for Estuary Park were expansive, including restaurants, an observation tower, a fish market, and a pedestrian bridge over the Southern Pacific railroad tracks to connect the park with the Laney College campus (Figures 17, 18). The Ford tractor parts warehouse was to be removed and replaced with recreation facilities. Notably, the trellis and arbor were to turn north to the northern edge of the park to connect to the Portobello condominium complex, then under construction. The park, as initially conceived, was to serve as a major node in a new network of pedestrian-oriented urban spaces that linked Jack London Square, Laney College, the Henry J. Kaiser Auditorium, and Lake Merritt (Roma Design Group 2015).

The inclusion of the project in LH&A's 1970 promotional book suggests that the firm initially hoped that Estuary Park would become another one of their signature projects (Lawrence Halprin and Associates 1970).

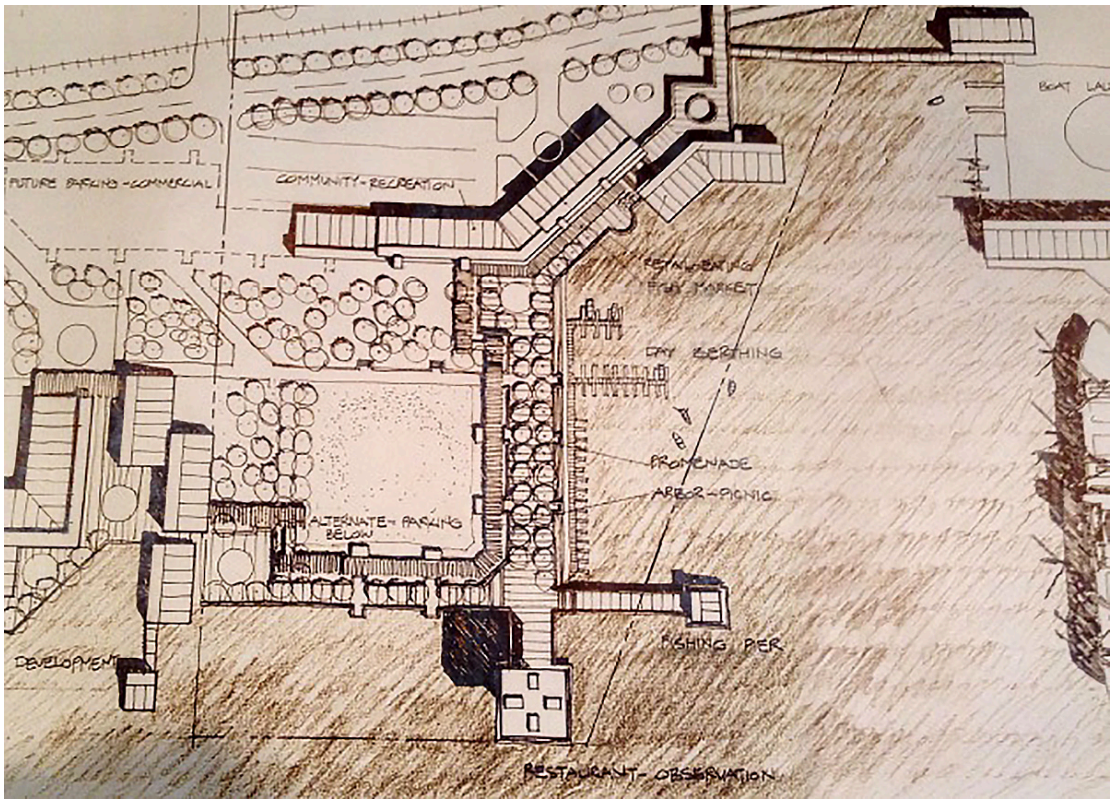


Figure 17: Phase I Concept for Estuary Park, 1969 (Roma Design Group 2017)

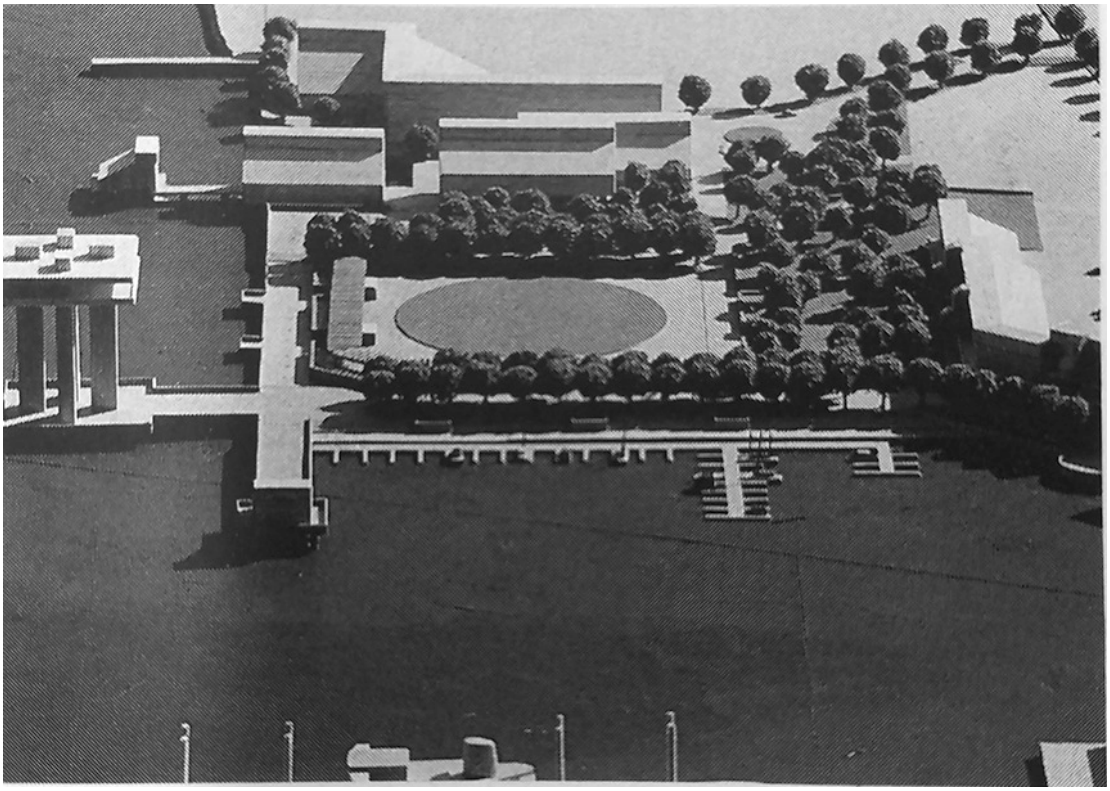


Figure 18: Estuary Park Model (Halprin 1986)

The Estuary Park plan was conceived in phases. A May 1968 drawing in the Port of Oakland archives (Figure 19) shows the revised first phase of the project, and shows the public boat ramps, parking area, arbor, trellis, floating docks and fishing pier, all more or less as later constructed. The plan also included elements which were not built, including an observation tower on the fishing pier and a small retail and dining establishment off the parking lot at the park entrance. The stepped interface with the water is not shown in this initial phase of the design.

> Though preliminary planning work had clearly been underway for some time, LH&A finalized a contract with the City of Oakland only in October 1968, after the City had secured $595,000 in grants from the State Department of Harbors and Watercraft, State Beach, Parks, and Historical Bond Act, and Federal Urban Beautification funds. The *Tribune* reported that the Halprin architects have recommended that the first phase include a bulkhead, a pedestrian promenade along the Lake Merritt Channel, landscaping, a pergola covered with vines, a boat launching area, night lighting, outdoor furnishings, parking, roadways and limited concessionaires space... to tie in with the landscaped promenade that is to link Jack London Square with the new Peralta [now Laney] College" (*Oakland Tribune* 1968).

LH&A's fee for design services was $28,854.27, or 8% of the projected construction cost.

The design work for this first phase, with LH&A partner Satoru Nishita as Principal-in-Charge, appears to have been more or less completed by March 1969, when the Port of Oakland approved additional budget for LH&A to "complete the next stage of their work" (Port of Oakland 1969a). The Port executed the lease of the two parcels making up Estuary Park to the City of Oakland on October 15, 1969 (Port of Oakland 1969b).

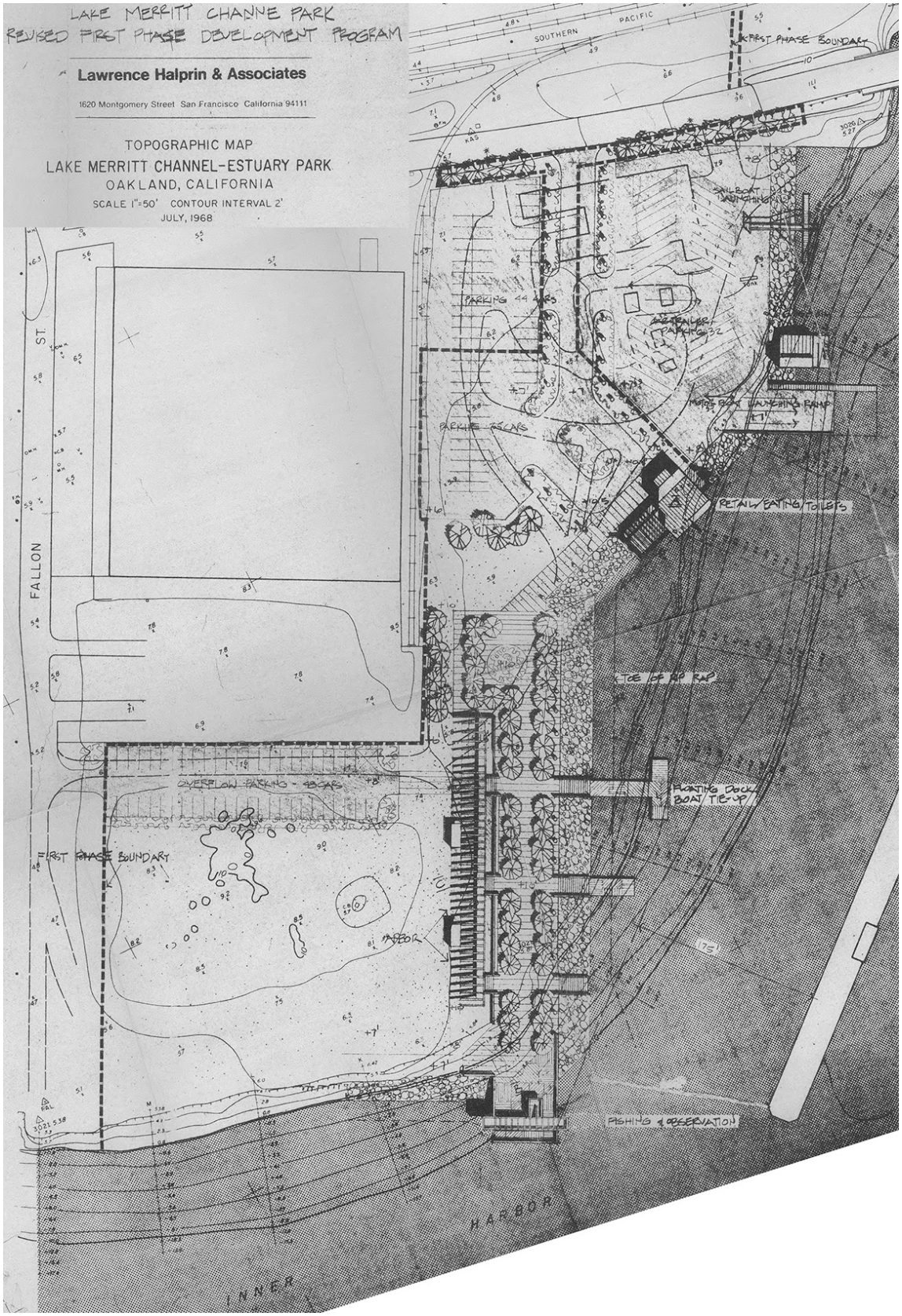


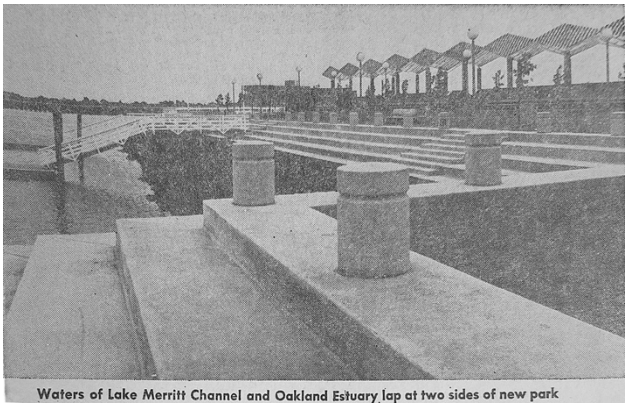
Figure 19: Revised Phase I plans for Estuary Park, May 1968 (Port of Oakland 1968)

Documents detailing the relationship between City, Port, and LH&A during 1970 were not found during research. In April 1971, the Port cancelled LH&A's contract (Port of Oakland 1971). Soon afterward, construction on Phase I of the park began. J. H. Fitzmaurice of Oakland was selected as the park's general contractor; the main construction challenge appears to have been removing the remains of Sunset Lumber's old wharves, as the *Tribune* reported that "much of the work done centered on removing a proliferation of old pilings in the water and realignment of the shoreline" (*Oakland Tribune* 1972).

Though the observation deck and retail space initially envisioned for the park were never built, the other elements of the park were constructed as envisioned in the LH&A's May 1968 concept drawing for Phase I (Figure 19). The major elements of the park were concentrated in a 115-foot wide band extending 500 feet along the Lake Merritt Channel, creating a strong east-west axis. The central tree-lined promenade was flanked by an elevated arbor to the north and a stepped descent to the water to the south, with benches, two floating docks, and a fishing pier providing additional amenities. A concrete boat ramp was built at the eastern edge of the site, however, rather than further west as depicted in the May 1968 drawing. A small restroom building (since removed) stood near the boat launch ramp. The Oakland Parks and Recreation Department served as developer and operator of the new park, which was open by June 1972 (Figure 20). When complete, the park included

> the city's only public boat launch for which there will be no charge, a large fishing platform, floating boat docks, and picnic tables under an unusual overhead trellis. Landlubbers will find rows of benches for viewing the water activities. Restrooms and extra-long parking spaces are near the launch ramp, which can handle two boats at a time (*Oakland Tribune* 1972).

The westernmost floating dock and the western boat ramp near Embarcadero were constructed at this time (City of Oakland 2018). After the completion of this first phase of the LH&A design, the area north of the arbor remained an undeveloped meadow, with only informal trails connecting the landscaped elements to the Portobello apartment complex to the north. No evidence that the City ever sought to complete the LH&A design was found during research.


Waters of Lake Merritt Channel and Oakland Estuary lap at two sides of new park


View up Lake Merritt Channel from Estuary shows floating boat docks

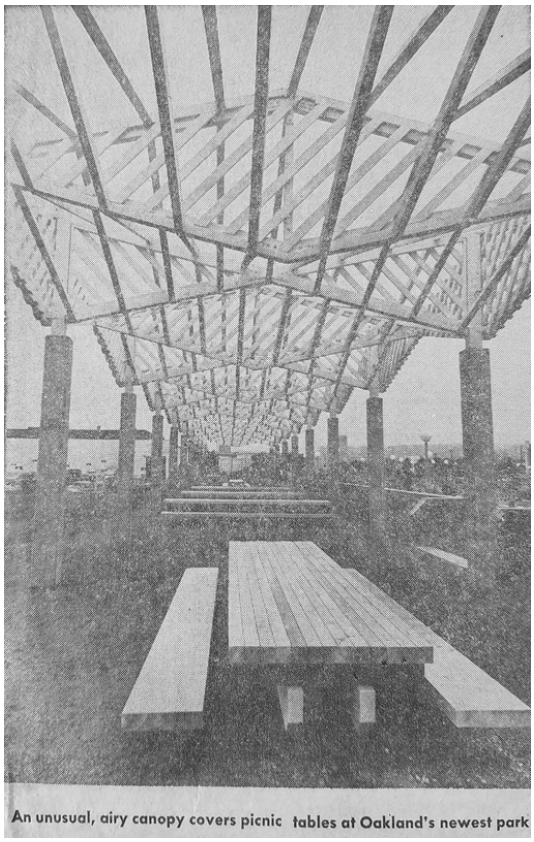

An unusual, airy canopy covers picnic tables at Oakland's newest park

*Figure 20: Estuary Park at its opening (*Oakland Tribune *1972)*

Estuary Park since 1980

City Councilman John Sutter proposed a sculpture garden along the Lake Merritt Channel in 1978. The project was approved by the City Council and received a $50,000 matching grant from the National Endowment for the Arts in 1979 (*Oakland Tribune* 1978, 1979b, 1979c). The project was to be "a permanent home for the city's sculpture collection," and the initial grant was used to commission Michael Heizer to create a sculpture specifically for Estuary Park. Oakland Museum curator George Neubert said at the time that Heizer was "one of the most important sculptors working in the West" (*Oakland Tribune* 1979a, 1979c). The first sculpture in Estuary Park was *Holistic Image* by Betty Gold, installed on June 20, 1979 (Figure 21). The *Examiner and Chronicle* described the work as "a respectable, quietly authoritative piece in a constructivist tradition" (*San Francisco Examiner and Chronicle* 1979). Gold's sculpture was donated by Mr. and Mrs. Sidney Feldman to the City of Oakland (*Montclarion* 1979) and remains in the collection of the Oakland Museum.


Montclarion 6/27/79

HOLDING ON, Oakland Museum art curator George Neubert balances himself on Betty Gold's *Holistic Image*, the first piece of sculpture to be installed as part of Oakland's sculpture garden. Assisting Neubert in his enjoyment of the sculpture are (from right) Oakland vice-mayor John Sutter, who initiated the sculpture garden idea; local artist Henrietta Berk, a member of the Oakland Arts Council; and Charles Elliott, vice president of Tygart Industries, Alhambra, representing Mr. and Mrs. Sidney Feldman, who gave the sculpture to Oakland.

Figure 21: Installation of Holistic Image (Montclarion 1979)

The sculpture garden project was expanded in 1980-1982, in advance of the international sculpture conference to be held in Oakland in Fall 1982. The project was estimated to cost $4-5 million; fundraising however, had advanced only to about $400,000 by late 1981 (*Montclarion* 1981b). The Oakland Museum took delivery of Heizer's *Platform, 1979* in mid-1982, when the 30-ton sculpture was installed by crane in Estuary Park (Figure 22; *Oakland Tribune* 1982). Twelve more large scale sculptures were installed around Oakland in June 1982, including *Seanchai* by Gary Dwyer, a "stacked sod landscape sculpture" which was placed in Estuary Park. An untitled granite and pigment sculpture by Lita Albuquerque was placed adjacent to Estuary Park, next to the Portobello apartment complex (*San Francisco Chronicle* 1982, Oakland Museum 1982). Neither the Dwyer or Albuquerque sculptures could be located during field survey, but a third sculpture of twisted metal was observed on the west side of the park near *Platform, 1979.* Its sculptor is unknown.

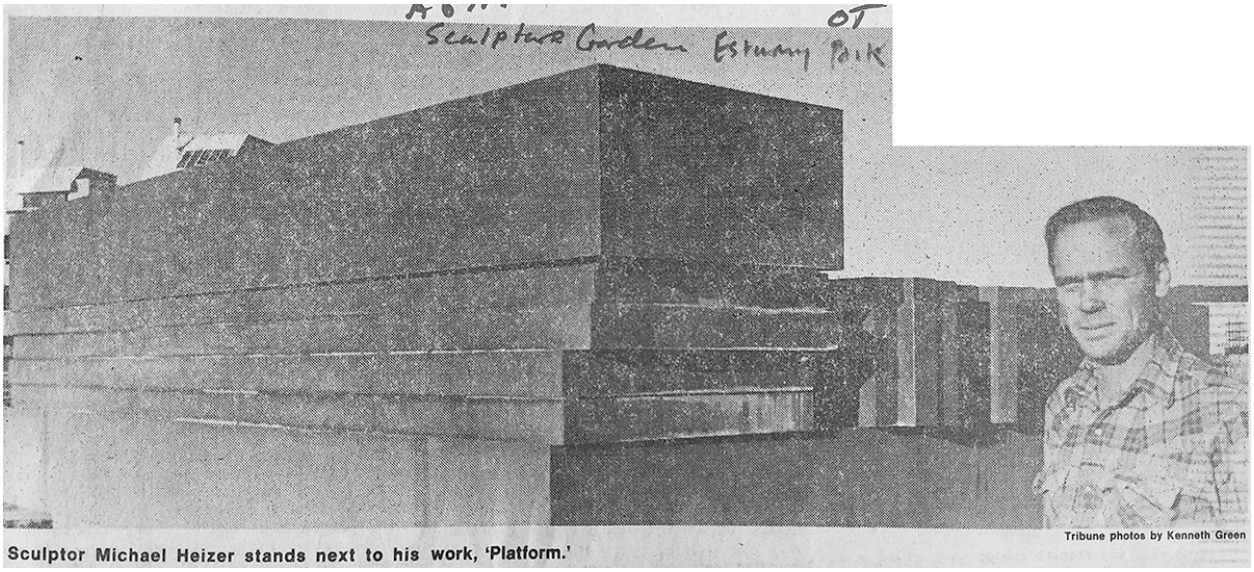


Figure 22: Installation of Platform, 1979 (Oakland Tribune *1982).*

During the 1980s, Estuary Park was used as a put-in area for recreational boats, including several rowing groups. In 1993 Cleve Williams, director of Oakland's Office of Parks & Recreation, proposed constructing a multi-use facility at Estuary Park that would provide water-based recreation services to the public. Members of several rowing groups formed the Jack London Aquatic Center LLC (JLAC) in 1994 to advocate for construction of the facility (*Bay Crossings* 2001). After passage of Oakland's Measure K open space bond in 1996, the City allocated $1.5 million for construction, which was matched by $500,000 from the Port of Oakland (Port of Oakland 1999).

The building was designed by VBN Architects and Alan Dreyfuss, AIA, and constructed by the design-build team of Murikami-Eshima and J.H. Fitzmaurice (Carey and Co. 2005). Groundbreaking for the Jack London Aquatic Center took place in March 1998, and the facility was completed in 2000. In addition to the new building, the complex included resurfacing of the parking lot, construction of two floating docks near the new JLAC building, a new boat ramp (the eastern ramp near Embarcadero), boat storage, and space for education programs. The facility is managed by JLAC on behalf of the City of Oakland (*Bay Crossings* 2001). The LH&A-designed restroom structure near the public boat ramp appears to have been removed when the new complex was constructed. In 1999, the Port of Oakland renewed the City's lease on the two Estuary Park parcels for a term of 30 years (Port of Oakland 1999). The former Jetro Cash and Carry grocery store remained in operation until 2014, when it was demolished.

Significance Evaluation

This section evaluates whether Estuary Park contains historic resources as defined in the CEQA guidelines, using two frameworks: the California Register of Historical Resources and the Oakland Cultural Heritage Survey.

CEQA Regulatory Framework

In September 1992, Governor Wilson signed Assembly Bill 2881 which created more specific guidelines for identifying historic resources during the project review process under the California Environmental Quality Act (CEQA):

> A project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. For purposes of this section, an historical resource is a resource listed in, or determined eligible for listing in, the California Register of Historical Resources.[1]

Consequently, under Public Resources Code §21084.1, an historic resource eligible for the California Register would, by definition, be an historic resource for purposes of CEQA compliance. The Final Guidelines for nominating resources to the California Register were published January 1, 1998. Under the regulations, a number of historic resources are automatically eligible or presumed to be eligible for the California Register if they have been listed under various state, national, or local historic resource criteria. An historic resource listed in or determined eligible for the National Register is, by definition, also eligible for the California Register. An historic resource listed in a local historic resources inventory is presumed to be historically or culturally significant unless the preponderance of the evidence demonstrates that it is not historically or culturally significant (CEQA Guidelines §15064.5(a)(2)).

For a property to be eligible for the California Register, it must be significant at the local, state or national level, under one or more of the following four "Criteria of Significance" (these are essentially the same as National Register criteria with more emphasis on California history):

1. the resource is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history and cultural heritage of California or the United States.
2. the resource is associated with the lives of persons important to the nation or to California's past.
3. the resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values.
4. the resource has the potential to yield information important to the prehistory or history of the state or the nation (this criterion applies primarily to archaeological sites).

In addition to meeting one of the four Criteria of Significance, the property must retain historic integrity (defined below), and it must be 45 years old or older (except for rare cases of structures of exceptional significance).

The California Register regulations define "integrity" as "...the authenticity of a property's physical identity, evidenced by the survival of characteristics that existed during the property's period of

[1] California State Assembly, Assembly Bill 2881, Frazee, 1992. *An Act to Amend § 5020.1, 5020.4, 5020.5, 5024.6 and 21084 of, and to add § 5020.7, 5024.1, and 21084.1 to, the Public Resources Code, relating to historic resources.*

significance," that is, it must retain enough of its historic character or appearance to be recognizable as an historical resource. Following the National Register integrity criteria, California Register regulations specify that integrity is a quality that applies to historic resources in seven ways: location, design, setting, materials, workmanship, feeling and association.[2] A property usually must retain most of these qualities to possess integrity. The retention of specific aspects of integrity is paramount for a property to convey its significance. Determining *which* of these aspects are most important to a particular property requires knowing why, where, and when the property is significant, and may thus vary based on which of the Criteria of Significance it meets.

Integrity

The original elements of the LH&A design for Estuary Park all show evidence of disrepair: the concrete steps are cracked and spalled in many places, the trees appear unhealthy, the trellis members in the raised arbor are worn, and the picnic benches have been replaced. However, the design remains clearly legible and very close to that articulated in LH&A's May 1968 drawings for Phase I of Estuary Park. The location, setting, design, materials, association and workmanship are all largely unchanged, except for the restroom building formerly located near the public boat ramp at the eastern end of the park. The park's disrepair has impacted its integrity of feeling somewhat. Overall, however, the park features retain enough integrity to convey their significance.

California Register Evaluation of Built Environment Resources (Criteria 1-3)

Three built environment resources are located in the project area, including the Lawrence Halprin and Associates-designed landscape features (1968-1972), a public sculpture program (1979-1982), and the Jack London Aquatic Center (2000). The sculpture program and aquatic center building do not meet the age threshold for CEQA resources and do not have exceptional significance, and so are not CEQA-eligible resources.

Estuary Park was designed in 1968-1970 and built in 1971-1972, and is therefore not quite 50 years old. In general, properties which are less than 50 years old must possess exceptional importance in order to qualify for CRHR or NRHP.

The park does not appear to be eligible under CRHR Criterion 1 (events or patterns of events), as research did not suggest that events associated with the broad patterns of history occurred at or near the site. With regard to CRHR Criterion 2 (lives of important persons), the owners of the lumber companies active on site do not appear to have been important figures, nor was the Ford Motor Company warehouse building a major facility associated with the company. Nor has Estuary Park played an important role in the lives of individuals who were prominent in local, California, or national history. It therefore appears that the project area is not eligible under Criterion 2.

CRHR Criterion 3 is meant to recognize properties that are significant for their physical design and construction. The distinctive characteristics of Estuary Park include the arbor and trellis structure, promenade, stepped shoreline edge, and fishing pier, and represent concepts and practices that were typical of modernist landscape architecture from the period 1960-1980. These features are executed in typical materials for the period, primarily wood and concrete, and nothing about their method of construction appears to be unusual.

[2] The definition of integrity under the California Register follows National Register of Historic Places criteria. Detailed definitions of the qualities of historic integrity are in National Register Bulletin 15, *How to Apply National Register Criteria for Evaluation*, published by the National Park Service.

Lawrence Halprin and Associates, has been the subject of extensive scholarly research and is widely recognized as among the most important mid-20th century landscape architecture practices in the United States. Estuary Park features some of LH&A's typical design characteristics. Steps descending to or through water are common in many of their projects, including Justin Herman Plaza in San Francisco (1966) or Freeway Park in Seattle (1970). The firm had a strong interest in trellises and aerial structures, as seen at Cowell and Stevenson Colleges (UC Santa Cruz, 1963), Portland Center (Portland, OR, 1966), or Manhattan Square Park (Rochester, NY, 1971). The firm also had a strong interest in the revitalization of spaces affected by freeways. As Meyer (2009:125) puts it,

> By the mid-1960s... Lawrence Halprin and Associates were known more for their urban than suburban landscape projects... Where he reasserted the landscape architect's role in regenerating the American city, made vital social and pedestrian spaces out of formerly marginal sites such as historic industrial complexes or the spaces over or under freeways. In doing so, they reimagined a public realm for American cities that had been cleared by federal urban renewal programs and abandoned for new suburban developments.

Examples of work that addressed the problem of the freeway includes Freeway Park, Embarcadero Plaza, the Portland Open Space Sequence (1965), and the never-implemented San Francisco Freeways Report (1962). In general, the approaches used at Estuary Park are of a piece with LH&A's practice (1960-1976).

Halprin's personal involvement with the project appears to have been limited to preliminary sketches and concepts, while it was Nishita who brought the project to completion (Roma Design Group 2017). Nishita was an important landscape architect in his own right and continued to be involved with shaping the East Bay shoreline in his 1980s work for the East Bay Regional Park District and Jack London Square.

While Estuary Park is *typical* of LH&A's designs in the 1960s and early 1970s, it lacks important aspects seen in their other works. For instance, the notion of *sequence,* where users of a space are led through a series of spaces in one or more logical orders (Hirsch 2014:70, Meyer 2009) is missing from Estuary Park, because only a limited first phase of the park was constructed, and the intended connections between the landscape design and adjoining properties to the north (Jack London Square) and east (Lake Merritt) were never completed. Scholars of Halprin note that the significance of LH&A's designs lies not so much in the materials used or design of specific elements, but in the way that spaces are articulated with one another to create motion, connection, and interaction (Meyer 2009). The landscape elements at Estuary Park, by contrast, are isolated and fragmentary and fail to integrate with surrounding urban spaces. Access to the park is mostly by car.

Estuary Park is not cited in the abundant academic literature on LH&A and modernist landscape design. No major recent consideration of Halprin's life and work mentions Estuary Park at all (e.g. Halprin 2011, Helphand 2017, Hirsch 2014, Meyer 2009). Compared to contemporaneous park planning efforts with similar aims of revitalizing urban spaces near freeways – such as Embarcadero Plaza (San Francisco) or Freeway Park (Seattle), all of which have had major influences on city planning and public consciousness – Estuary Park was not influential on a local or regional level. As such, LH&A's Estuary Park elements do not appear to represent any particular innovation in the firm's practice.

Given that the park reflects only some of the design principles typical of LH&A's practice, has not received scholarly attention, and is a minor example of many surviving works by the firm in Northern

California, Estuary Park does not appear to possess the exceptional significance required for it to be eligible for CRHR under Criterion 3 as a property less than 50 years old.

Archaeological Sensitivity and Evaluation under California Register Criterion 4

Many historic land uses have the potential to create deposits of archaeological artifacts, or to leave subsurface remains which have the potential to yield information about past activities. Criterion 4 of the California Register recognizes that this information potential can make a resource significant.

However, the types of activities that took place at Estuary Park did not lend themselves to formation of large deposits of artifacts. The project area is filled land, created in 1907 with dredge spoils on an area that was formerly tidal marsh. Its current elevation above sea level is 6 to 8 feet. It therefore has no potential to contain prehistoric archaeological resources.

In the early historic period (1907-1940s), much of the surface of the later Estuary Park area was planked, making it unlikely that many artifacts or materials associated with the lumber yard were deposited in or below the ground surface. While outhouses for lumber workers were probably located on site, these are unlikely to contain the number and variety of domestic artifacts typically found in residential privies, since there was no household waste to dispose of in this area.

The Sunset Lumber Company buildings (ca. 1910-1940) were wood-frame buildings on plank floors, with no indication of basements or concrete foundations (except in the auto repair shed). Scammell Lumber company (ca. 1940-1955) did have a lumber shed with a partial concrete floor, though it was demolished by 1955 to make room for the Ford Motor Company tractor parts warehouse (later Jetro Cash & Carry). This latter building was demolished down to the concrete pad in 2014. While some subsurface remains of these structures may remain, they would most likely be limited to post holes, chunks of concrete foundations, fasteners, and incidentally lost tools or personal effects. These types of deposits are unlikely to have much information potential. Given this, the site does not appear to be eligible under California Register Criterion 4.

Evaluation under the City of Oakland Cultural Heritage Survey

Introduction

The CEQA guidelines give local jurisdictions wide latitude to establish criteria of significance that reflect local history and values. Properties determined eligible for local registers are presumed to be historical resources for the purposes of CEQA, unless a preponderance of evidence demonstrates otherwise (PRC §21084.1, CCR §15064.5(a)[2]).

The City of Oakland maintains the Oakland Cultural Heritage Survey, which was established by the 1994 Historic Preservation Element of the General Plan. The OCHS uses a series of criteria to score buildings and sites, and then assigns them values based on a score. The process differs from the CRHR in that it considers properties in the context of the history of Oakland, rather than in the context of the State or nation. The OCRS criteria include visual quality and design, history and association, and context. A score is assigned for each criterion, and then modified by the property's integrity. Properties are assigned a rating from A-E based on their score. Properties rated A (highest importance) and B (major importance) are considered part of Oakland's Local Register of Historic Resources. Properties with a rating of C (secondary importance) may be eligible for further study, may be potential landmarks, or may be considered for preservation, but are not part of the Local Register without further action by the Landmarks and Preservation Board (City of Oakland 2018). Properties rated D (minor importance) or E (of no particular interest) do not typically enjoy protected status.

Evaluation

In terms of *visual quality and design*, though the materials themselves (wood and concrete) are unexceptional and not treated in unusual ways, the design elements of Estuary Park are well-composed, well-constructed and possess interesting details. Designers Lawrence Halprin and Satoru Nishita are regionally- and nationally-known landscape architects, and the whole is a good example of public space design of the 1960s and 1970s in the context of Oakland. Though smaller in scale, the LH&A elements at Estuary Park can be compared with the Kaiser Center gardens (David Arbegast, 1960), the Estates Drive Reservoir (Robert Royston, built 1968 and demolished 2015), and the Oakland Museum of California gardens (Dan Kiley, 1969) in terms of contemporaneous landscape design.

In terms of *history and association*, the park is associated with a firm of primary importance in landscape architecture, but only loosely, as Estuary Park was not one of their major or influential works. The park can be said to be loosely connected to a pattern of secondary importance in California history, modernist landscape design.

Estuary Park does not have an especially important *context,* in that it is not located in a historic district. While it is a recognizable feature of the neighborhood, it is not a major city or neighborhood landmark. While it is a focal point for rowing and boating on the estuary, these activities are not associated directly with the LH&A features of the park.

Estuary Park has fair *integrity:* its features exhibit extensive surface wear, but are in their original locations with all major components intact. Surface wear appears to be reversible with appropriate maintenance.

Referring to the OCHS scoring sheet (Appendix C), the property has a final score of 25.5, which gives it a score of C (Secondary Importance) as defined in the Historic Preservation Element:

> Secondary Importance. Properties that have sufficient visual/architectural or historical value to warrant recognition but do not appear individually eligible for the National Register. Some may be eligible as City landmarks. Superior or visually important examples of a particular type, style, or convention, and most pre-1906 properties (City of Oakland 1994).

Regulatory Implications

As noted above, properties rated A and B in the OCHS rating system are considered part of Oakland's Local Register of Historic Resources, and therefore are historical resources for the purposes of CEQA. Properties rated C, however, are not historical resources unless the City of Oakland takes further action to list them as local landmarks. Therefore, Estuary Park does not appear to contain CEQA historical resources.

Bibliography

Anonymous
1929 Aerial photograph of Oakland Estuary, showing Sunset Lumber Company. Oakland History Room clippings files, Oakland Public Library, s.v. "Lumber and Lumbering".

Bay Crossings
2001 "Working Waterfront in their Own Words." December 2001. Available at: http://www.baycrossings.com/dispnews.php?id=948/, accessed September 12, 2018.

Carey & Company
2005 *Historic Resources Evaluation, Oak Street to 9th Avenue Redevelopment Project*. Available at: http://www2.oaklandnet.com/oakca1/groups/ceda/documents/webcontent/oak035514.pdf. Accessed October 25, 2018.

Chavez, David
1993 *Archaeological Resources Investigations for the San Antonio Wet Weather Treatment Plant Project, Oakland, California*. On file, Northwest Information Center, Sonoma State University, Report S-014854.
2000 *Archaeological Resources Investigations for the EBMUD East Bayshore Recycled Water Project, Alameda County, California.* On file, Northwest Information Center, Sonoma State University, Report S-023778.

City of Oakland
1994 *City of Oakland Historic Preservation Element.*
2018 Memorandum from Ali Schwart of the City of Oakland Planning Department to Hargreaves and Associates regarding the date of docks at Estuary Park.

Corbett, Michael and Woodruff Minor
1997 Primary Record for P-01-002190, Western Pacific Railroad Ferry Slips. On file, Northwest Information Center, Sonoma State University.

Golla, Victor
2007 "Linguistic prehistory." In Terry L. Jones and Kathryn A. Klar, eds., *California Prehistory: Colonization, Culture, and Complexity*. New York: AltaMira Press, pp. 71-82.

Halprin, Lawrence
1972 Notebooks 1959-1971. Cambridge, MA: MIT Press.
1986 *Lawrence Halprin: Changing Places.* San Francisco: SF Museum of Modern Art.
2011 *A Life Spent Changing Places.* Philadelphia: University of Pennsylvania Press.

Helphand, Kenneth I.
2017 *Lawrence Halprin.* Athens, GA: University of Georgia Press.

Hibna, Michael
2011 Primary Record for P-01-011645, Port of Oakland Building #G-203. On file, Northwest Information Center, Sonoma State University.

Hirsch, Alison Blick

2014 *City Choreographer: Lawrence Halprin in Urban Renewal America.* Minneapolis: University of Minnesota Press.

Husted, F. M.
1905 *Husted's Oakland, Alameda and Berkeley Directory.* Tribune Publishing Company, Oakland, CA.
1907 *Husted's Oakland, Alameda and Berkeley Directory.* Polk-Husted Directory Co, Oakland, CA.

Jones, DeWitt (editor)
1934 *History of Port of Oakland 1850-1934.* Oakland: State Emergency Relief Administration.

Jones, Timothy E.
2013 Historic Property Treatment Plan, Oak to Ninth Avenue Project, Oakland, Alameda County, California (and supplement). LSA Associates. On file, Northwest Information Center, Sonoma State University, Report S-045213.

Kostura, William
1999 Primary Record for P-01-010845, Oakland Recreation Department Maintenance Shop, 11 Fourth Street, Oakland. On file, Northwest Information Center, Sonoma State University.

Lawrence Halprin & Associates
1970 Untitled promotional booklet. On file, Environmental Design Library, UC Berkeley.

Levy, Richard
1978a "Costanoan." In *Handbook of North American Indians.* Vol. 8: *California.* Washington: Smithsonian Institution.

Meyer, Elizabeth K.
2009 "Lawrence Halprin" in Charles A. Birnbaum and Stephanie S. Foell, eds. *Shaping the American Landscape.* Charlottesville, CA: University of Virginia Press.

Military Museum
2016 "Naval Industrial Reserve Repair Facility, Oakland." Available at: http://www.militarymuseum.org/NIRRFOakland.html. Accessed October 25, 2018.

Milliken, Randall
1995 *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area, 1769-1810.* Novato, CA: Ballena Press.

Milliken, Randall, Richard T. Fitzgerald, Mark G. Hylkema, Randy Groza, Tom Origer, David G. Bieling, Alan Leventhal, Randy S. Wiberg, Andrew Gottsfield, Donna Gillete, Viviana Bellifemine, Eric Strother, Robert Cartier, and David A. Fredrickson
2007 "Punctuated Culture Change in the San Francisco Bay Area." In Terry L. Jones, and Kathryn A. Klar, eds., *California Prehistory: Colonization, Culture, and Complexity.* New York: Altamira Press, pp. 99–124.

The Montclarion
1979 Photograph of Betty Gold sculpture. June 27, 1979. On file, Oakland History Room clippings files, Oakland Public Library, s.v. "Oakland Parks – Estuary Park".
1981a "Twenty-two Acres of Sculpture May Grace Lake Merritt's Channel." July 22, 1981. On file, Oakland History Room clippings files, Oakland Public Library, s.v. "Oakland Parks – Estuary Park".

1981b "City's Sculpture Garden is Taking Shape." September 30, 1981. On file, Oakland History Room clippings files, Oakland Public Library, s.v. "Oakland Parks – Estuary Park".

National Park Service
1995 *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation.* Washington, DC: National Park Service.

Oakland Museum of California
1982 "Estuary Park Sculpture Project." Undated pamphlet. On file, Oakland History Room clippings files, Oakland Public Library, s.v. "Oakland Parks – Estuary Park".

Oakland Tribune
1904 "Prepared for Large Business." July 7, 1904, p. 10.
1905 "Sunset Lumber Company." Advertisement. December 23, 1905, p. 42.
1907a "Oakland's Amazing Twelvemonth Growth." April 20, 1907, p. 26.
1907b "Reclaiming Oakland's Southern Waterfront." April 20, 1907, p. 28.
1910 "Manufacturers Join in Condemning F.C. Turner." February 18, 1910, p. 1.
1915 "Pupils Wait All Night at School." December 31, 1915, p. 1.
1923 "Sunset Lumber Company." Advertisement. August 26, 1923, p. 24.
1968 "S.F. Firm to Design Park Here." October 27, 1968. On file, Oakland History Room clippings files, Oakland Public Library, s.v. "Oakland Parks".
1972 "New Estuary Park Offers Boating, Fishing. June 18, 1972, p. 19. On file, Oakland History Room clippings files, Oakland Public Library, s.v. "Oakland Parks – Estuary Park".
1976 "Parks are Important Too." September 26, 1976, Page 7-P. On file, Oakland History Room clippings files, Oakland Public Library, s.v. "Oakland Parks".
1978 "Oakland's Dreams of a 'Sculpture Garden'." December 10, 1978, Page 2-E. On file, Oakland History Room clippings files, Oakland Public Library, s.v. "Oakland Parks – Estuary Park".
1979a "Home for Sculpture." March 22, 1979. On file, Oakland History Room clippings files, Oakland Public Library, s.v. "Oakland Parks – Estuary Park".
1979b "Sculpture Garden Considered." March 27, 1979. On file, Oakland History Room clippings files, Oakland Public Library, s.v. "Oakland Parks – Estuary Park".
1979c "U.S. Fund Starts Sculpture Garden." June 21, 1979, Page 8-L. On file, Oakland History Room clippings files, Oakland Public Library, s.v. "Oakland Parks – Estuary Park".
1982 "Platform Takes its Place." No date. On file, Oakland History Room clippings files, Oakland Public Library, s.v. "Oakland Parks – Estuary Park".

Polk, R. L. & Co.
1928 *Polk's Oakland City Directory*. R.L. Polk & Co, Oakland, CA.
1933 *Polk's Oakland City Directory*. R.L. Polk & Co, Oakland, CA.
1938 *Polk's Oakland City Directory*. R.L. Polk & Co, Oakland, CA.
1939 *Polk's Oakland City Directory*. R.L. Polk & Co, Oakland, CA.
1940 *Polk's Oakland City Directory*. R.L. Polk & Co, Oakland, CA.
1941 *Polk's Oakland City Directory*. R.L. Polk & Co, Oakland, CA.
1967 *Polk's Oakland City Directory*. R.L. Polk & Co, Oakland, CA.

Polk-Husted Directory Co
1923 *Oakland, Berkeley, Alameda City Directory*. Polk-Husted Directory Co, Oakland, CA.

Port of Oakland

1969a "Resolution Approving a Letter Amending the Agreement Between the City of Oakland and Lawrence Halprin & Associates." Board of Port Commissioners Resolution 19063, March 24, 1969. On file, Port of Oakland.
1969b A Joint Ordinance Authorizing the Execution of Leases of Real Property from the Port of Oakland to the City of Oakland for the Lake Merritt Channel Estuary Park Facilities. Port of Oakland Ordinance 1613 and City of Oakland Ordinance 8055. October 15, 1969. On file, Port of Oakland.
1971 Minutes of the April 7, 1971 meeting of Board of Port Commissioners. On file, Port of Oakland.
1999 Lease of Real Property between Port of Oakland and the City of Oakland (Estuary Park), April 20, 1999. On file, Alameda County Recorder, Document Number 99-176057.

Roma Design Group
2015 "Halprin Design Features of Significance to Estuary Park." Memorandum. On file, City of Oakland Planning Department.

San Francisco Chronicle
1982 "Oakland's Sculpture Garden Getting 12 Large-Scale Works." June 25, 1982. On file, Oakland History Room clippings files, Oakland Public Library, s.v. "Oakland Parks – Estuary Park".

San Francisco Examiner and Chronicle
1979 "Art Construction Firmly Planted in a Sculpture Garden." June 24, 1979. On file, Oakland History Room clippings files, Oakland Public Library, s.v. "Oakland Parks – Estuary Park".

Sanborn Map Company
1889 Fire Insurance Maps of Oakland, CA, Sheet 4.
1902 Fire Insurance Maps of Oakland, CA, Volume 2 Sheet 131.
1911 Fire Insurance Maps of Oakland, CA, Volume 2 Sheet 173.
1951 Fire Insurance Maps of Oakland, CA, Volume 2 Sheet 173.

Schwartz, Martha.
1993 "Landscape and Common Culture Since Modernism". In Treib, Marc, ed. *Modern Landscape Architecture: A Critical Review.* Cambridge, MA: MIT Press.

Schwartzer, Mitchell
2014 "A Tale of Two Waterfronts: Oakland's Jack London Square Competes with San Francisco." *California History* 91(4): 6-30.

Sunderland, Clyde H.
1947 "Key System Transit Lines Aerial System Maps AV-II, Sheet 5-16." Photograph. Available at: www.davidrumsey.com. Accessed October 25, 2018.
1953 "Aerial View - Inner Harbor and 9th Avenue Terminal, October 21, 1953." Photograph. On file, Oakland History Room clippings files, Oakland Public Library, s.v. "Oakland – Harbor"

TCLF (The Cultural Landscape Foundation)
2018 "Pioneers: Satoru Nishita." Available at: https://tclf.org/pioneer/satoru-nishita. Accessed October 25, 2018.

Walker, Peter and Melanie Simo
1994 *Invisible Gardens: The Search for Modernism in the American Landscape. Cambridge, MA: MIT Press*

Zaremba, Kristin
2018 Personal communication with City of Oakland Public Art Coordinator regarding sculptures at Estuary Park. July 24, 2018.

Appendix A: Northwest Information Center Record Search

Appendix B: California DPR 523 Primary Record

Appendix C: Oakland Cultural Heritage Survey Scoring Form

Oakland Cultural Heritage Survey – Evaluation Worksheet

The worksheet below evaluates the Lawrence Halprin and Associates landscape elements at Estuary Park. It is based on the 1993 Oakland General Plan Heritage Survey Evaluation Methods document, which is reproduced on the following pages. The final score of 24.5 suggests that the LH&A elements at Estuary Park should be considered a Property of Secondary Importance for the purpose of the OCHS.

A Visual Quality/Design

Criterion	*Rating*	*Score*	*Comment*
1 Exterior	G	4	Good quality of form, composition, detailing
2 Interior	n/a		
3 Construction	FP	0	Not significant as example of concrete/wood construction
4 Designer	E	6	Halprin and Nishita are important designers
5 Type	G	3	1960s landscape architecture –few examples in Oakland
6 Supportive elements	FP	0	None

B History/Association

Criterion	*Rating*	*Score*	*Comment*
7 Person/Organization	VG	10	Organization of primary importance (Halprin & Associates), loosely connected to site
8 Event	FP	0	No known significant events
9 Patterns	G	3	Pattern of secondary importance (1960s landscape architecture), loosely connected
10 Age	FP	0	Less than 50 years old

C Context

Criterion	*Rating*	*Score*	*Comment*
11 Continuity	FP	0	Not located in an area of primary or secondary importance
12 Familiarity	G	5	Conspicuous in neighborhood, but not citywide

SCORE (A, B, & C) **31**

D Integrity

Criterion	*Rating*	*Score*	*Comment*
13 Condition	F	-1.6	Exhibits considerable surface wear
14 Exterior Alterations	G	-4.9	Minor alteration
15 Interior Alterations	n/a		
16 Structural Removals	E	0	No removals
17 Site	E	0	Has not been moved

E Reversibility

Criterion	*Rating*	*Score*	*Comment*
18 Exterior	E		Highly Reversible
19 Interior	n/a		

DEDUCTIONS (D & E) -6.5

TOTAL SCORE **24.5**

Attachment B: Revised OCHS Tally Sheet

OCHS Evaluation Tally Sheet

Name Estuary Park

2018 OCHS | 2022 ESA Revised OCHS

A. Visual Quality / Design						
E	VG	G	FP		Survey Results	Total A (40 pts. Max)
16	8	4	0	1. Exterior	8	22
				2. Interior (n/a)		
8	4	2	0	(a) Space 1		
4	2	1	0	(b) Space 2		
2	1	1	0	(c) Other Spaces		
10	5	3	0	3. Construction	3	
6	3	2	0	4. Designer/Builder	6	
10	5	3	0	5. Type/Style	3	
8	4	2	0	6. Supportive Elements	2	

B. History/Assocation						
E	VG	G	FP		Survey Results	Total B (40 pts. Max)
20	10	5	0	7. Person/Organization	20	23
20	10	5	0	8. Event	0	
12	6	3	0	9. Patterns	3	
8	4	2	0	10. Age	0	

C. Context						
E	VG	G	FP		Survey Results	Total C (20 pts. Max)
8	4	2	0	11. Continuity	0	5
20	10	5	0	12. Familiarity	5	

Premlinary Total (Sum of A, B, and C, 100 pts. Max) 50.00

D. Integrity						
E	G	F	P		Survey Results	Total D Deductions
0%	3%	5%	10%	13. Condition (prelim total)	2.5	-10.2
				14. Exterior Alterations		
0%	20%	40%	80%	(a) From A and C Total (Ex	5.4	
0%	10%	20%	40%	(b) From B total	2.3	
				15. Interior Alterations (n/a)		
0%	20%	40%	80%	(a) Space 1		
0%	20%	40%	80%	(b) Space 2		
0%	20%	40%	80%	(c) other Spaces		
				16. Structural Removals		
0%	40%	60%	80%	(a) From A and C Total	0	
0%	25%	38%	50%	(b) From B total	0	
0%	25%	38%	50%	17. Site (from B total)	0	

Adjusted Total (Preliminary Total minus Integrity Deductions) 39.80

OCHS Evaluation Tally Sheet

Name Estuary Park

2018 OCHS	2022 ESA Revised OCHS

E. Reversibility						
E	G	F	P		Survey Results	Total E
3	3	2	2	18. Reversibility of Item 14 (	3	3
				19. Reversibility of Item 15 (Interior) (n/a)		
3	3	2	2	(a) Space 1		
3	3	2	2	(b) Space 2		
3	3	2	2	(c) other Spaces		

Note: This is a single ranking for all factors, either 2 or 3

Tally						
Present Status (Adjusted Total) [(A+B)-C]					Points	Status
A (41+)	B (28-40)	C (18-27)	D (11-17)	E (0-10)	39.80	B
Contingency Status [Adjusted Total + E]						
A (41+)	B (28-40)	C (18-27)	D (11-17)	E (0-10)	42.80	A

This page is intentionally blank.

APPENDIX D

Draft Secretary of the Interior's Standards for Rehabilitation Compliance Memo, ESA 2023

ESA

180 Grand Avenue
Suite 1050
Oakland, CA 94612
510.839.5066 phone
510.839.5825 fax

esassoc.com

memorandum

date	August 1, 2023
to	Catherine Payne and Richard Walker, City of Oakland Planning Department
cc	Crescentia Brown, ESA
from	Becky Urbano, ESA
subject	Secretary of the Interior's Standards Compliance Analysis

As part of the Oakland Estuary Park Renovation and Expansion Project Master Plan (project), ESA recommends Estuary Park eligible for listing in the California Register of Historical Resources (California Register) and as a B-rated City of Oakland historical resource. As such, the park qualifies as a historical resource for the purposes of CEQA. The project includes repairs and renovations to Estuary Park, including those elements of the park that contribute to the historical resource. As stated in the regulations (36 CRF 68), the Secretary of the Interior's Standards (Standards) are "to be applied taking into consideration the economic and technical feasibility of each project." In general, a project that would comply with the Secretary's Standards is considered to have mitigated its impact to a less-than-significant level (CEQA Guidelines section 15064.5(b)(3)). The following assesses the project for compliance with the Standards for the purposes of determining potential impacts to the historical resource for the purposes of CEQA.

Existing Conditions

Estuary Park is a notable and rare example of the work of master landscape architecture firm, Lawrence Halprin & Associates (LH&A) within the City of Oakland. It is also associated with master designer Satoru Nishita who served as principal-in-charge for the project and directly contributed to the revitalization planning for the Oakland Estuary from the late 1960s through the 1980s. While the park has suffered from lack of maintenance, it retains integrity and is clearly recognizable as representative of the original design that opened to the public in 1972.[1]

Character-defining features include those elements from the original design that remain. This includes:[2]

- Wood trellis supported by concrete columns;

[1] See Appendix C and its Attachment A for a more in-depth presentation of the historic resource, including historical background and updated historic resource evaluations.

[2] The list of character-defining features is taken from Appendix C.

- General linear and geometric form of the park with elements arranged on a grid. This contrasts with the irregular shoreline outside of the park;
- Raised concrete platform for the trellis, including its water-facing concrete wall and integrated wood benches;
- Allèe of Plane trees;
- Zig-zagging concrete stairs that provide waterfront access;
- Cylindrical concrete bollards with incised line at the top of the stairs;
- Custom made, wood picnic tables and benches, constructed of heavy timber;
- Size, location, and dimensions of the observation platform at the western end of the allèe; and
- Circular, raised concrete planter at the east end of the allèe, (formerly containing a large-scale art installation).

Project Description

Those elements of the Project within the LH&A landscape include:

1. Extension of the Bay Trail along the park's shoreline and within the current allèe of trees. Construction of the new bike and pedestrian path will require replacement of the existing decomposed granite surface with either stabilized decomposed granite or cast-in-place concrete.

2. Expansion of Estuary Park to the north and west to encompass all of the land between Embarcadero West (north), the Oakland estuary (east and south), and the Portobello Homeowners Association (west).

3. Restoration and structural strengthening of the wood and concrete trellis using the following approach:

    a. Structural reinforcement of the overhead trellis structure with the addition of steel tubing of similar dimension and placement to the existing wood. The goal is to integrate the new steel tubing to be inconspicuous to the casual observer; and

    b. Re-painting the trellis structure to match the original color (white).

4. Alterations to the water-facing concrete wall enclosing the arbor and trellis. This includes:

    a. Removal of approximately 2/3 of the low wall and all of the built-in wooden benches along the eastern edge of the trellis area. Approximately 1/3 of the wall will be retained within the central third of the trellis structure;

    b. Raising the elevation of the grade directly to the east of the platform to bring the Bay Trail to the recommended elevation for sea-level-rise adaptation. The finish grade will be level with the bottom of the retained portion of wall noted above; and

    c. Replacement of the Plane trees with new trees, planted at regular intervals to re-establish the allèe of trees on both sides of the new Bay Trail extension. The number of trees will likely be fewer and species of tree different but the overall aesthetic of the allèe will be maintained in its historic location.

5. Replacement of the most picnic tables with new, wood picnic tables that are similar in design to the original but do not mimic the two (2) original LH&A picnic tables that will be retained. Original picnic

tables include the largest example at the north end of the trellis area (oriented north-south) and a smaller table at the south end of the trellis area (oriented east-west). The original tables will flank the new tables within the trellis area.

6. Removal of the circular, raised concrete planter at the east end of the allèe;

7. New pathways through the historic design are limited and are aligned with the original stairs in the concrete bulkhead on the east side of the park. Pathways are straight and follow the orthogonal geometry of the original design.

8. Retention and repairs to the stepped concrete bulkhead along the eastern park boundary. This includes retention and repairs to the concrete bollards.

9. Retention and repair to the wood observation pier at the south end of the park.

10. Incorporation of new design elements that are compatible with the original design such as:

    a. Continuation of portions of the concrete bulkhead and steps along the southeastern and southern portion of the LH&A design area. These steps serve as a grade separation element between the raised Bay Trail and the wooden observation pier.

    b. Installation of new wood benches that are compatible with, but do not exactly mimic the original wood benches found throughout the site. Note that all the original benches will be removed.

Secretary of the Interior's Standards for Rehabilitation

The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (Standards) were published and codified as 36 Code of Federal Regulations 68 in 1995 and updated in 2017.[3] Developed by the National Park Service for reviewing certified rehabilitation tax credit projects, the Secretary's Standards have been adopted by local government bodies across the country for reviewing proposed work on historic properties under local preservation ordinances. The Secretary's Standards provide a useful analytical tool for understanding and describing the potential impacts of changes to historical resources and are used to inform CEQA review.

The Standards consist of four treatments, each with its own set of standards and guidelines. These treatments are Preservation, Rehabilitation, Reconstruction, and Restoration. The Rehabilitation treatment allows for a greater range of modifications to historical resources to accommodate repairs, adaptive reuse, and upgrades for code and safety compliance. It is the most widely used set of standards and is the one most applicable to the Project.

The Secretary's Standards are neither technical nor prescriptive. Rather, they are intended to promote responsible preservation practices that help protect irreplaceable cultural resources. The Rehabilitation Standards consist of ten basic principles created to help preserve the distinctive character of a historic building and its site while allowing for reasonable changes to meet new needs.

[3] Treatments are defined as follows: "Preservation" acknowledges a resource as a document of its history over time and emphasizes stabilization, maintenance, and repair of existing historic fabric. "Rehabilitation," while also incorporating the retention of features that convey historic character, also accommodates alterations and additions to facilitate continuing or new uses. "Restoration" involves the retention and replacement of features from a specific period of significance. "Reconstruction," the least-used treatment, provides a basis for recreating a missing resource.

The ten Standards for Rehabilitation are as follows:

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.

6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

8. Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Analysis

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

   The project does not alter the original function of Estuary Park as a public park with access to both the Oakland estuary and to other public spaces beyond the park borders. Estuary Park was originally designed as part of a larger series of parks that flowed from Jack London Square to Lake Merritt. The

Project will strengthen connections to Jack London Square and provide improved access to the new public spaces developed in and around Brooklyn Basin to the east.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

   The project retains and repairs most of the character-defining features of the LH&A design. When completed, Estuary Park will be recognizable in its form, design, spatial layout, and features which will be incorporated into a more fully realized park setting.

3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

   The proposed design introduces new features (picnic tables and benches, trees, pathways) that are compatible in design but are differentiated from original features. They use heavy wood construction, concrete, and compatible paving materials, arranged in ways that mimic the original. However, they are clearly different from the original and would be easily recognizable as such to the common observer.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

   The period of significance for Estuary Park is 1972. No features installed after 1972 have acquired historic significance since that time. As such, Standard 4 is not applicable.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.

   The project retains nearly all of the character-defining features of the original design. This includes the distinctive wood and concrete trellis, heavy timber picnic tables, geometric layout of features, stepped concrete bulkhead, allèe of trees, wooden observation platform, and circulation through the park. Where repairs are necessary, they are designed to be unobtrusive or as minimal as necessary to preserve the original design.

6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

   As noted above, the wooden trellis requires strengthening to meet current seismic standards. Small-dimension metal tubing, placed within the trellis structure is proposed to minimize the visual impact of this work. All other repairs to character-defining features will be limited to localized repairs to address damage and will be executed with compatible materials.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

   No such treatments are proposed under this project. As such, Standard 7 is not applicable.

8. Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

   The site exists on filled land that was once used as a lumber mill. Excavation for the project is limited. As such, significant archaeological resources are unlikely to be found or disturbed by the project.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

   The new benches, picnic tables, circulation features, and trees are all compatible in design to the original but are not intended to recreate the original elements. Benches will be of heavy timber but will have different angles and a slenderer overall appearance than the originals. New picnic tables will also be made of heavy timber but will be simpler in design and shape than the LH&A picnic tables that will remain. New trees will be planted to re-establish the allèe of trees but will be spaced at wider intervals and will be a different species that is more appropriate to current park conditions.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

    Most of the original design elements will be retained in their original locations and forms. New elements are distinct from the original features and could be removed in the future without causing further damage to the trellis, the stepped concrete bulkhead, bollards, or geometric design of the park.

Analysis

The proposed project is compatible with the Secretary of the Interior's Standards for Rehabilitation. It retains all the major character-defining features of the 1972 LH&A design, applies a minimal approach to repairs and upgrades, and addresses years of deferred maintenance that have diminished the intended park experience. It re-establishes active circulation through the park and reconnects it with recreational features in the immediate area, while providing for improvements to ensure the park remains a viable public space as sea levels rise over the next several decades.

This page is intentionally blank.

APPENDIX E

ECAP Consistency Checklist

CITY OF OAKLAND
Equitable Climate Action Plan Consistency Checklist

250 Frank H. Ogawa Plaza, Suite 2114, Oakland, CA 94612-2031
Zoning Information: 510-238-3911
https://www.oaklandca.gov/topics/planning

The purpose of this Equitable Climate Action Plan (ECAP) Consistency Checklist is to assess whether a development project is consistent with the City of Oakland ECAP and the City of Oakland's greenhouse gas (GHG) emissions reduction targets. This Checklist must be submitted concurrently with the City of Oakland Basic Application.

For projects subject to discretionary review, the California Environmental Quality Act (CEQA) requires the analysis of GHG emissions impacts from new development.

- If a discretionary development project demonstrates compliance with the Checklist items as part of the project's design, or alternatively, demonstrate to the City's satisfaction why the item is not applicable, then the project will be considered in compliance with the City's CEQA GHG Threshold of Significance.
- If a discretionary development project cannot meet all of the Checklist items, the project will alternatively need to demonstrate consistency with the ECAP by complying with the City of Oakland GHG Reduction Plan Condition of Approval.
- If the project cannot demonstrate consistency with the ECAP, the City will consider the project to have a significant effect on the environment related to GHG emissions.

The City additionally requires residential development projects subject to by right review to complete the Checklist to demonstrate that the project will not impede the City from achieving its GHG reduction targets. Accessory Dwelling Unit (ADU) projects are not required to complete this Checklist and are instead reviewed by applying state and local ADU approval criteria.

- If a by right residential development project demonstrates compliance with the Checklist items as part of the project's design, or alternatively demonstrates to the City's satisfaction why the item is not applicable, then the project will be considered to not impede the City from reaching its GHG emissions reductions targets.
- If a by right residential development project cannot meet all of the Checklist items and cannot demonstrate through a quantitative analysis alternate means of equivalent greenhouse gas reductions, the project will not be eligible for approval under a by right review process. The applicant may revise the project to comply with the Checklist or alternatively utilize the City's discretionary review process.

Application Information

Applicant's Name/Company: Christine Reed, OPW on behalf of City of Oakland

Property Address: Estuary Park 115 Embarcadero, Oakland 94607

Assessor's Parcel Number: 18-430-1-8 City Park); 18-430-1-10 (Parcel N)

Phone Number: 510-238-6540

E-mail: creed2@oaklandca.gov

Checklist Item (Check the appropriate box and provide explanation for your answer).			
Transportation & Land Use			
1. For residential and mixed-use development, if the project is located on a parcel designated in the City of Oakland Housing Element as a Housing Inventory Site, is the proposed project a majority residential use (at least two-thirds of the square footage utilized for residential purposes) with either i) a minimum residential unit count no less than seventy-five percent of the realistic capacity designated for the site or ii) a minimum density of 30 dwelling units/acre? For non-residential development, is the proposed project substantially consistent with the City's over-all goals for land use and urban form, and/or taking advantage of allowable density and/or floor area ratio (FAR) standards in the City's General Plan? (TLU1, 2023-2031 Housing Element, 2022 CARB Scoping Plan Appx. D.)	**Yes**	**No**	**N/A** x
Please explain how the proposed project meets this action item.			
2. For developments in "Transit Accessible Areas" as defined in the Planning Code, would the project provide less than the following off-street parking: - For Residential Activities, less than one parking space per dwelling unit? - For Commercial Activities, less than one parking space per 600 square feet of floor area on the ground floor and one parking space per 1,000 square feet of floor area on other floors? - For Industrial Activities, less than one space per 3,500 square feet of floor area if total size exceeds 25,000 square feet, and less than one space per 1,00 square feet in all other circumstances? - For Agricultural and Extractive Activities, less than one space per 1,000 square feet of floor area and outdoor sales area Where developments contain a mix of activities, each standard above should be applied to the respective component. (TLU1, 2022 CARB Scoping Plan, Appx. D, Oakland Planning Code Ch. 17.116 prior to ECAP effective date of July 2020.)	**Yes**	**No**	**N/A** x
Please explain how the proposed project meets this action item.			

	Yes	No	N/A
3. For projects including structured parking, would the structured parking be designed for future adaptation to other uses? (Examples include, but are not limited to: the use of speed ramps instead of sloped floors.). (TLU1)			x
Please explain how the proposed project meets this action item.			
4. For projects that ***are*** subject to a Transportation Demand Management Program, would the project include transit passes for employees and/or residents? (TLU1)			x
Please explain how the proposed project meets this action item.			
5. For projects that are ***not*** subject to a Transportation Demand Management Program, would the project incorporate one or more of the optional Transportation Demand Management measures that reduce dependency on single-occupancy vehicles? (Examples include but are not limited to transit passes or subsidies to employees and/or residents; carpooling; vanpooling; or shuttle programs; on-site carshare program; guaranteed ride home programs) (TLU1 & TLU8)			x
Please explain how the proposed project meets this action item.			
6. Does the project comply with the Plug-In Electric Vehicle (PEV) Charging Infrastructure requirements (Chapter 15.04 of the Oakland Municipal Code), if applicable? (TLU2 & TLU-5)			x
Please explain how the proposed project meets this action item.			

	Yes	No	N/A
7. Would the project reduce or prevent the direct displacement of residents and essential businesses? (For residential projects, would the project comply with SB 330, if applicable? For projects that demolish an existing commercial space, would the project include comparable square footage of neighborhood serving commercial floor space. (TLU3)			x
Please explain how the proposed project meets this action item.			
8. Would the project prioritize sidewalk and curb space consistent with the City's adopted Bike and Pedestrian Plans? (The project should not prevent the City's Bike and Pedestrian Plans from being implemented. For example, do not install a garage entrance where a planned bike path would be unless otherwise infeasible due to Planning Code requirements, limited frontage or other constraints.) (TLU7)	Yes	No	N/A
	x		
Please explain how the proposed project meets this action item. The project involves working with existing public right of way and is not going to change the pedestrian/bike infrastructure.			
Buildings			
9. Does the project not create any new natural gas connections/hook-ups? (B1 & B2)	**Yes**	**No**	**N/A**
	x		
Please explain how the proposed project meets this action item.			
10. Does the project comply with the City of Oakland Green Building Ordinance (Chapter 18.02 of the Oakland Municipal Code), if applicable? (B4)	**Yes**	**No**	**N/A**
			x
Please explain how the proposed project meets this action item.			

	Yes	No	N/A
11. For retrofits of City-owned or City-controlled buildings: Would the project be all-electric, eliminate gas infrastructure from the building, and integrate energy storage wherever technically feasible and appropriate? (B5)			x

Please explain how the proposed project meets this action item.

Material Consumption & Waste

	Yes	No	N/A
12. Would the project reduce demolition waste from construction and renovation and facilitate material reuse in compliance with the Construction Demolition Ordinance (Chapter 15.34 of the Oakland Municipal Code)? (MCW6)	x		

Please explain how the proposed project meets this action item.

Contractors will be required to submit a Waste Reduction and Recycling Plan and meet requirements of the City's Green Halo program.

City Leadership

	Yes	No	N/A
13. For City projects: Have opportunities to eliminate/minimize fossil fuel dependency been analyzed in project design and construction? (CL2)			x

Please explain how the proposed project meets this action item.

The project is a park renovation with a pedestrian and bicycle friendly design.

Adaptation

	Yes	No	N/A
14. For new projects in the Designated Very High Wildfire Severity Zone: Would the project incorporate wildfire safety requirements such creation of defensible space around the house, pruning, clearing and removal of vegetation, replacement of fire resistant plants, as required in the Vegetation Management Plan? (A4)			

Please explain how the proposed project meets this action item.

Carbon Removal			
15. Would the project replace a greater number of trees than will be removed in compliance with the Tree Preservation Ordinance (Chapter 12.36 of the Oakland Municipal Code) and Planning Code if applicable and feasible given competing site constraints? (CR-2)	**Yes**	**No**	**N/A**
	x		
Please explain how the proposed project meets this action item. Based on 65% Design, the project is going to remove 36 existing trees and plant 107 new trees.			
16. Does the project comply with the Creek Protection, Stormwater Management and Discharge Control Ordinance (Chapter 13.16 of the Oakland Municipal Code), as applicable? (CR-3)	**Yes**	**No**	**N/A**
	x		
Please explain how the proposed project meets this action item. Permitting application will be prepared as applicable.			

I understand that answering ***yes*** to all of these questions, means that the project ***is in compliance with*** the City's Energy and Climate Action Plan as adopted on July 24, 2020 and requires that staff apply the Project Compliance with the Equitable Climate Action Plan (ECAP) Consistency Checklist Condition of Approval as adopted by the Planning Commission on _____and all Checklist items must be incorporated into the project

I understand that answering ***no*** to any of these questions, means that the project ***is not in compliance*** with the City's Energy and Climate Action Plan as adopted on July 24, 2020 and requires that staff apply the Greenhouse Gas (GHG) Reduction Plan Condition of Approval as adopted by the Planning Commission on _____ which will require that the applicant prepare a quantitative GHG analysis and GHG Reduction Plan for staff's review and approval. The GHG Reduction Plan and all GHG Reduction measures shall be incorporated into the project and implemented during construction and after construction for the life of the project.

_____ _____

Name and Signature of Preparer Date

This page is intentionally blank.