Air Quality Assessment
Vallejo Ferry Terminal Reconfiguration Project
City of Vallejo, California

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LIST OF ABBREVIATED TERMS

AQMP	air quality management plan
AB	Assembly Bill
ADT	average daily traffic
BAAQMD	Bay Area Air Quality Management District
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAAQS	California Ambient Air Quality Standards
CCAA	California Clean Air Act
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CO	carbon monoxide
cy	cubic yards
DPM	diesel particulate matter
EPA	Environmental Protection Agency
FCAA	Federal Clean Air Act
H_2S	hydrogen sulfide
Pb	Lead
LST	local significance threshold
µg/m^3	micrograms per cubic meter
mg/m^3	milligrams per cubic meter
NAAQS	National Ambient Air Quality Standards
NO_2	nitrogen dioxide
NO_x	nitrogen oxide
O_3	Ozone
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
ppm	parts per million
ROG	reactive organic gases
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SRA	source receptor area
SF	square foot
SO_{4-2}	Sulfates
SO_2	sulfur dioxide
TAC	toxic air contaminant
C_2H_3Cl	vinyl chloride
VOC	volatile organic compound

1 INTRODUCTION

This report describes effects on air quality conditions in the proposed Vallejo Ferry Terminal Reconfiguration Project (Project) area. The current condition of air quality was used as the baseline against which to compare potential impacts of the Project. The purpose of this Air Quality Assessment is to evaluate potential air quality impacts resulting from implementation of the Project.

1.1 PROJECT LOCATION

The Project site is located at 289 Mare Island Way in the City of Vallejo (City), Solano County, California. The Project includes the existing Vallejo Ferry Terminal, which consists of a steel float structure, aluminum gangway, and covering. The Project site is accessible by vehicle via Mare Island Way, and by ferry. See Figure 1: Regional Location and Figure 2: Vicinity Map.

Additional uses in this area along the Mare Island Strait include the Vallejo Tourism Information Center and commercial retail uses to the east and northeast, Independence Park to the southeast, Barbara Kondylis Waterfront Green to the northwest, a currently vacant office building to the south, and parking areas surrounding the site. Parking is currently provided to the east within waterfront parking lots on the eastern side of Mare Island Way, across the street from terminal site. The existing parking lots and garage areas adjacent to the proposed Project site accommodate Vallejo Ferry Terminal and Transit Center passengers and employees, guests and employees of the Tourism Information Center building and surrounding restaurants, and public users.

1.2 PROJECT DESCRIPTION

The proposed Project would be located on the eastern shore of the Mare Strait, within the footprint of the existing ferry terminal and basin area. The proposed terminal would remove and replace 5,322 square feet (sf) of existing gangway, passenger float, and piles with a new reconfigured gangway, passenger float, and piles. The new Water Emergency Transportation Authority (WETA) Standard float would be approximately 134.5 feet by 42 feet and would accommodate both sides of the float for passenger loading and unloading. No new structures are proposed. Passenger waiting areas would be located along a portion of the San Francisco Bay Trail in a designated outdoor queuing area adjacent to the proposed gangway entry gate. Figure 3: Project Site Plan -- Preferred Project, Figure 4: Project Site Plan -- Configuration Option 1, and Figure 5: Project Site Plan -- Configuration Option 2 depict the overall site plan of each alternative for the proposed Project.

The Project site is zoned as Waterfront Mixed-Use and is located in an urban area with a mix of uses including recreational, commercial, office, and medium to high density residential uses. The surrounding project site is designated under the Parks, Recreation, and Open Space land use, and is zoned Waterfront Mixed-Use.

Construction is anticipated to begin in Summer 2025 with an anticipated completion date of late Winter 2025. Construction methods would include demolition of the existing piles, gangway, and float, site preparation, ground improvements, utility installation or reconfiguration, Bay fill removal (existing piles), and placement for installation of pilings for the new float and donut fenders, and fixed pier support.

The proposed Project would not result in any changes to the existing operational uses of the Project site. The proposed Project would result in the reconfiguration of the existing ferry terminal. Therefore, the proposed facilities would have the same uses that are currently used for standard WETA ferry operations that transport passengers to San Francisco Bay ferry terminals.

Source: ESRI, 2023

Figure 1: Regional Map

WETA Vallejo Ferry Terminal Reconfiguration Project

Not to scale

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Source: Nearmap, 2023

Figure 2: Vicinity Map

WETA Vallejo Ferry Terminal Reconfiguration Project

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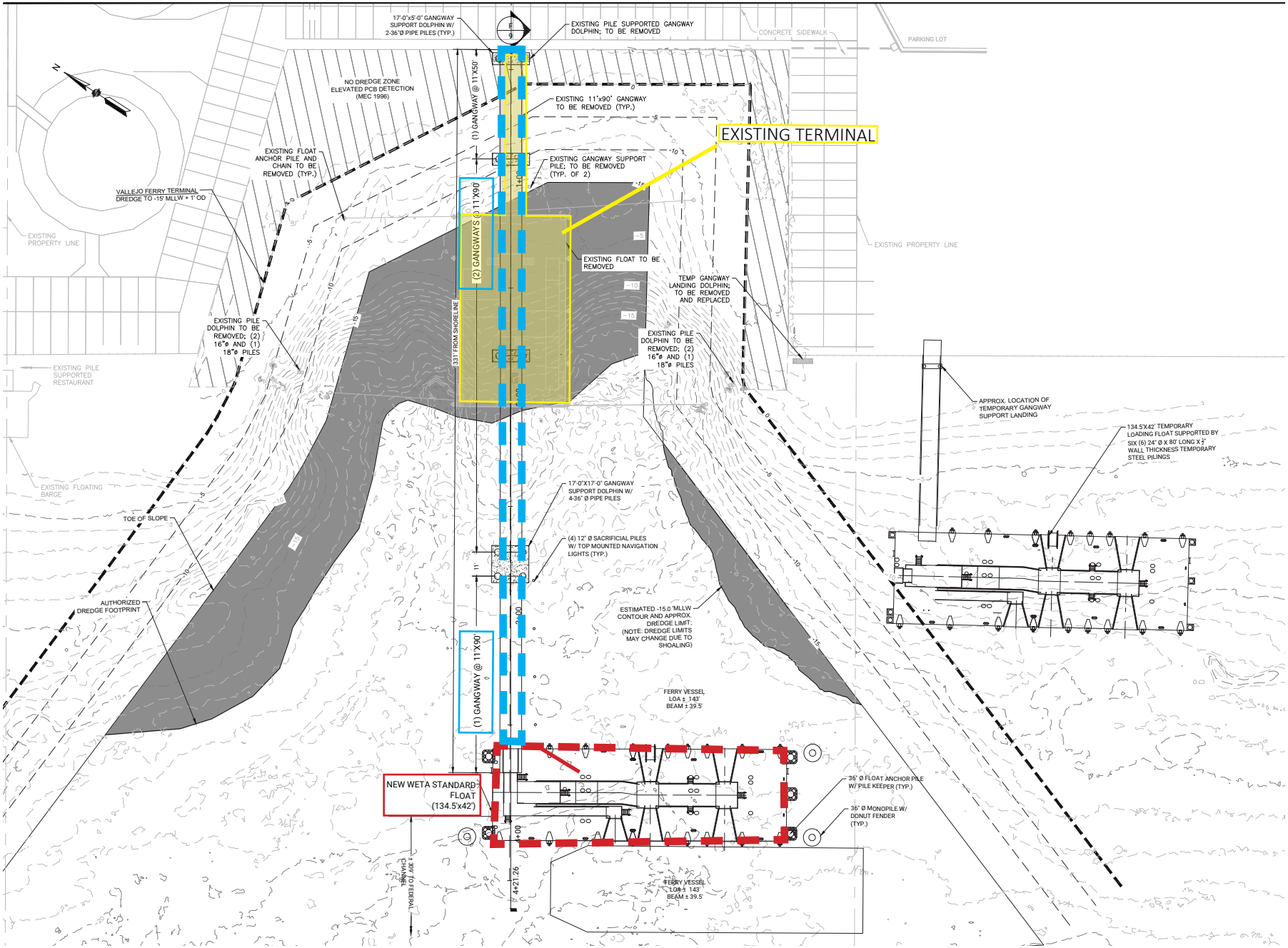

Source: Foth, 2023

Figure 3: Project Site Plan -- Preferred Project

WETA Vallejo Ferry Terminal Reconfiguration Project

Not to scale

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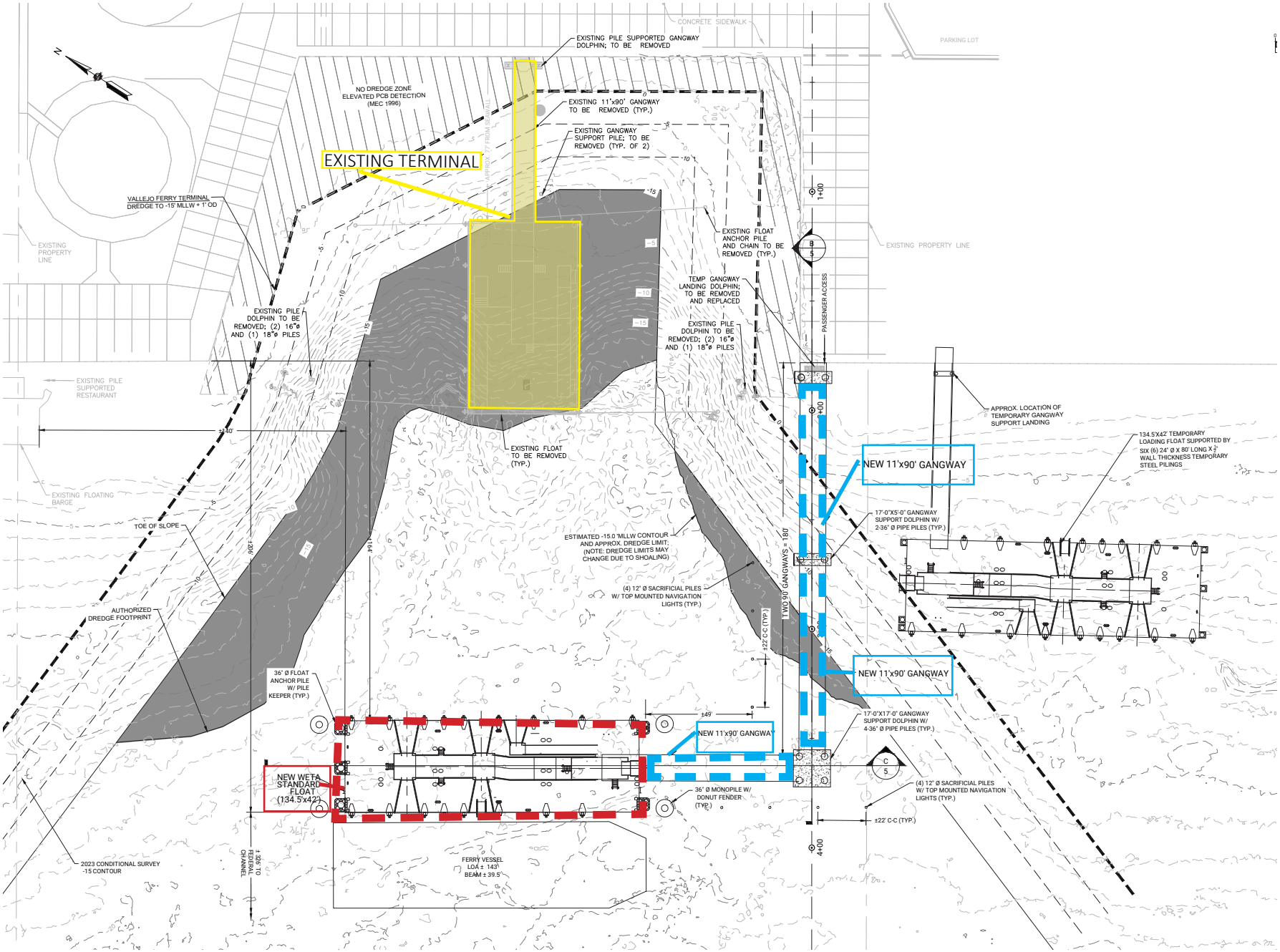

Source: Foth, 2023

Figure 4: Project Site Plan -- Configuration Option 1

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Not to scale

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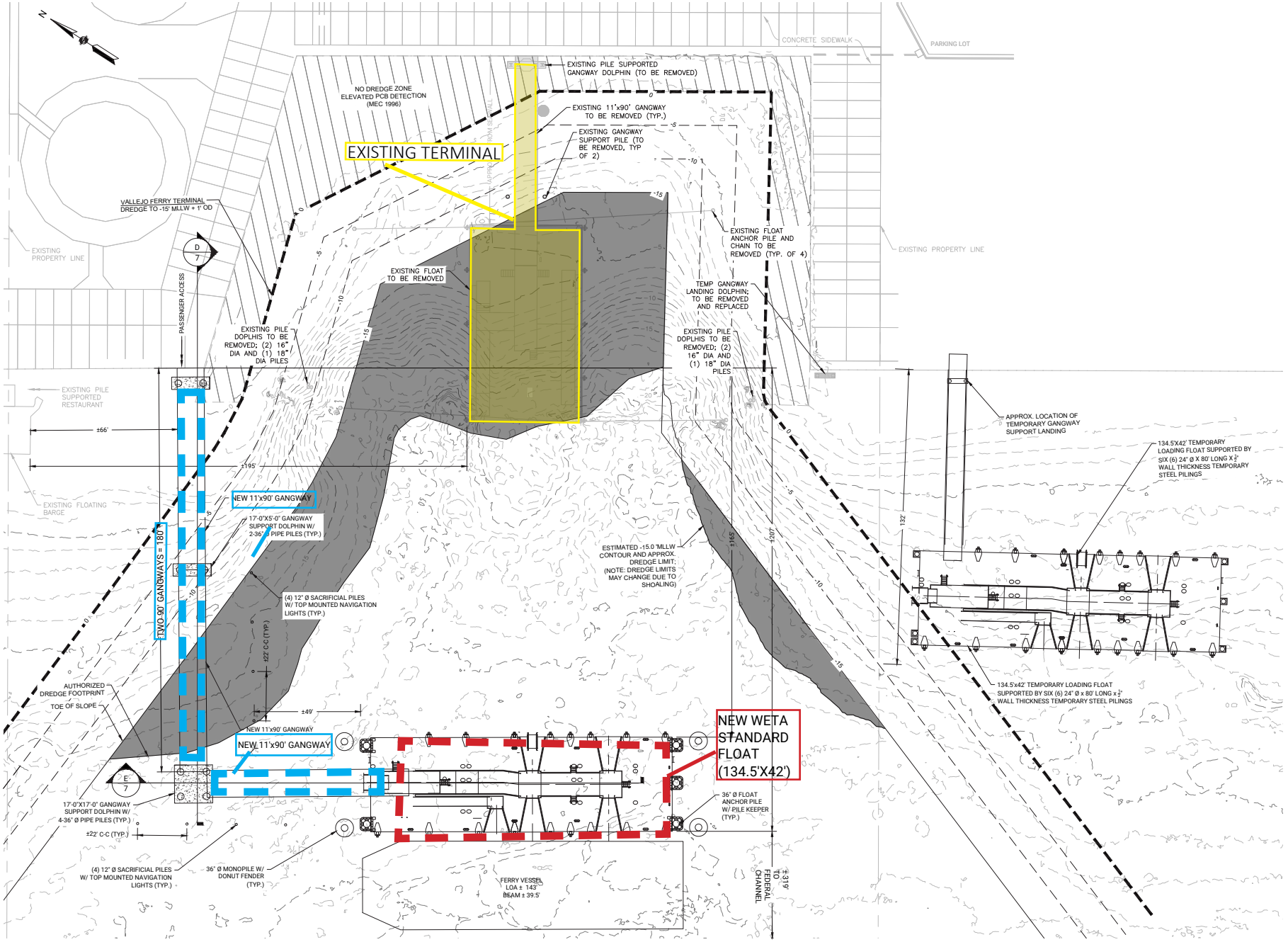

Source: Foth, 2023

Figure 5: Project Site Plan -- Configuration Option 2

WETA Vallejo Ferry Terminal Reconfiguration Project

Not to scale

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2 ENVIRONMENTAL SETTING

2.1 CLIMATE AND METEOROLOGY

The California Air Resources Board (CARB) divides the State into 15 air basins that share similar meteorological and topographical features. The Project is located within the San Francisco Bay Area Air Basin (Basin). This Basin comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern portion of Sonoma County, and the southwestern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions. These factors along with applicable regulations are discussed below. The Bay Area Air Quality Management District (BAAQMD) is responsible for local control and monitoring of criteria air pollutants throughout the Basin.

Climate, or the average weather condition, affects air quality in several ways. Wind patterns can remove or add air pollutants emitted by stationary or mobile sources. Inversion, a condition where warm air traps cooler air underneath it, can hold pollutants near the ground by limiting upward mixing (dilution). Topography also affects the local climate, as valleys often trap emissions by limiting lateral dispersal.

The inversions typical of winter, called radiation inversions, are formed as heat quickly radiates from the earth's surface after sunset, causing the air in contact with it to rapidly cool. Radiation inversions are strongest on clear, low-wind, cold winter nights, allowing the build-up of such pollutants as carbon monoxide and particulate matter. When wind speeds are low, there is little mechanical turbulence to mix the air, resulting in a layer of warm air over a layer of cooler air next to the ground. During radiation inversions downwind transport is slow, the mixing depths are shallow, and turbulence is minimal, all factors which contribute to ozone formation.

The frequency of hot, sunny days during the summer months in the Basin is another important factor that affects air pollution potential. It is at the higher temperatures that ozone is formed. In the presence of ultraviolet sunlight and warm temperatures, reactive organic gases and oxides of nitrogen react to form secondary photochemical pollutants, including ozone.

The climate is dominated by the location and strength of a semi-permanent, subtropical high-pressure cell. In the summer, the Pacific cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below the surface because of the northwesterly flow produces a band of cold water off the coast which results in condensation and the presence of fog and stratus clouds along the coast. In the winter, the high-pressure cell weakens and shifts southward, resulting in increased wind flow offshore, the absence of upwelling, and the occurrence of storms.

The Basin is characterized by moderately wet winters (November through March) and dry summers. The rainfall in the mountains reaches 40 inches while the valley sees less than 16 inches. Generally, coastal temperatures can be 35 degrees Fahrenheit cooler than temperatures 15 to 20 miles inland. At night, this contrast usually decreases to less than 10 degrees Fahrenheit. In the winter, the relationship of minimum and maximum temperatures is reversed.

The Project site is located in the City of Vallejo and Solano County; on the northeastern perimeter of the San Francisco Bay. The City of Vallejo has a generally mild climate, with average temperature ranging from 48 degrees Fahrenheit and 70 degrees Fahrenheit. The annual rainfall is approximately 18 inches in the City, primarily between October and April. The regulatory section below discusses the various buffer zones around sources of air pollution sufficient to avoid adverse health and nuisance impacts on nearby receptors.

2.2 AIR POLLUTANTS OF PRIMARY CONCERN

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state laws. These regulated air pollutants are known as "criteria air pollutants" and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NO_X), sulfur dioxide (SO_2), coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead are primary air pollutants. Of these, CO, NO_X, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. ROG and NO_X are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. For example, the criteria pollutant ozone (O_3) is formed by a chemical reaction between ROG and NO_X in the presence of sunlight. O_3 and nitrogen dioxide (NO_2) are the principal secondary pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in Table 1: Air Contaminants and Associated Public Health Concerns.

Ozone, or smog, is not emitted directly into the environment, but is formed in the atmosphere by complex chemical reactions between ROG and NO_X in the presence of sunlight. Ozone formation is greatest on warm, windless, sunny days. The main sources of NO_X and ROG, often referred to as ozone precursors, are combustion processes (including motor vehicle engines) the evaporation of solvents, paints, and fuels, and biogenic sources. Automobiles are the single largest source of ozone precursors in the Basin. Tailpipe emissions of ROG are highest during cold starts, hard acceleration, stop-and-go conditions, and slow speeds. They decline as speeds increase up to about 50 miles per hour (mph), then increase again at high speeds and high engine loads. ROG emissions associated with evaporation of unburned fuel depend on vehicle and ambient temperature cycles. Nitrogen oxide emissions exhibit a different curve; emissions decrease as the vehicle approaches 30 mph and then begin to increase with increasing speeds.

Ozone levels usually build up during the day and peak in the afternoon hours. Short-term exposure can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, it can aggravate existing respiratory diseases such as asthma, bronchitis and emphysema. Chronic exposure to high ozone levels can permanently damage lung tissue. Ozone can also damage plants and trees, and materials such as rubber and fabrics.

Table 1: Air Contaminants and Associated Public Health Concerns

Pollutant	Major Man-Made Sources	Human Health Effects
Particulate Matter (PM_{10} and $PM_{2.5}$)	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.
Ozone (O_3)	Formed by a chemical reaction between reactive organic gases/volatile organic compounds (ROG or VOC)[1] and nitrogen oxides (NO_X) in the presence of sunlight. Motor vehicle exhaust industrial emissions, gasoline storage and transport, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
Sulfur Dioxide (SO_2)	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Lead (Pb)	Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Due to the phase out of leaded gasoline, metals processing is the major source of lead emissions to the air today. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.	Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children, resulting in learning deficits and lowered IQ.

[1] Volatile Organic Compounds (VOCs or Reactive Organic Gases [ROG]) are hydrocarbons/organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROGs and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

Source: California Air Pollution Control Officers Association (CAPCOA), *Health Effects*, capcoa.org/health-effects/, accessed December 2023.

Toxic Air Contaminants

Toxic air contaminants (TACs) are airborne substances that can cause short-term (acute) or long-term (chronic or carcinogenic, i.e., cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting

operations. The current California list of TACs includes more than 200 compounds, including particulate emissions from diesel-fueled engines.

The California Air Resources Board (CARB) identified diesel particulate matter (DPM) as a toxic air contaminant. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

2.3 AMBIENT AIR QUALITY

CARB monitors ambient air quality at approximately 250 air monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Existing levels of ambient air quality, historical trends, and projections near the Project site are documented by measurements made by the Bay Area Air Quality Management District (BAAAQMD)'s air pollution regulatory agency that maintains air quality monitoring stations, which process ambient air quality measurements.

Ozone (O_3) and particulate matter (PM_{10} and $PM_{2.5}$) are pollutants of concern in the BAAQMD. The closest air monitoring station to the Project site that monitors ambient concentrations of these pollutants is the Vallejo Monitoring Station (located approximately 1.4 miles northeast of the Project site). Local air quality data from 2020 to 2022 is provided in Table 2: Ambient Air Quality Data lists the monitored maximum concentrations and number of exceedances of federal or state air quality standards for each year. Particulate matter ($PM_{2.5}$) was exceeded in 2020 at the closest monitoring station.

Table 2: Ambient Air Quality Data

Pollutant	Vallejo [1]		
	2020	2021	2022
Ozone (O_3)			
1-hour Maximum Concentration (ppm)	0.096	0.099	0.066
8-hour Maximum Concentration (ppm)	0.077	0.072	0.058
Number of Days Standard Exceeded			
CAAQS 1-hour (>0.09 ppm)	1	1	0
NAAQS 8-hour (>0.070 ppm)	1	1	0
Nitrogen Dioxide (NO_2)			
1-hour Maximum Concentration (ppm)	48.5	40.5	44.2
Number of Days Standard Exceeded			
NAAQS 1-hour (>100 ppm)	0	0	0
CAAQS 1-hour (>0.18 ppm)	0	0	0
Particulate Matter Less Than 2.5 Microns ($PM_{2.5}$)			
National 24-hour Maximum Concentration	152.7	32.0	31.0
State 24-hour Maximum Concentration	153.2	32.0	31.0
Number of Days Standard Exceeded			
NAAQS 24-hour (>150 µg/m³)	12	0	0
CAAQS 24-hour (>50 µg/m³)	12	0	0
Particulate Matter Less Than 10 Microns (PM_{10})			
National 24-hour Maximum Concentration	--	--	--
State 24-hour Maximum Concentration	--	--	--
Number of Days Standard Exceeded			
NAAQS 24-hour (>150 µg/m³)	--	--	--
CAAQS 24-hour (>50 µg/m³)	--	--	--

NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million; µg/m³ = micrograms per cubic meter; NM = not measured

[1] Measurements taken at the Vallejo Monitoring Station located at 304 Tuolumne Street, Vallejo, California 94590 (CARB# 43380).

Source: All pollutant measurements are from the CARB Aerometric Data Analysis and Management system database (arb.ca.gov/adam).

2.4 SENSITIVE RECEPTORS

Sensitive populations are more susceptible to the effects of air pollution than the general population. Sensitive receptors in proximity to localized sources of toxics are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. As shown in Figure 6: Sensitive Receptors, sensitive receptors near the Project site include a multi-family residential community approximately 545 feet southeast and the Vallejo John F. Kennedy Library approximately 615 feet east. Table 3: Sensitive Receptors, lists the distances and locations of nearby sensitive receptors.

Table 3: Sensitive Receptors

Receptor Description	Distance and Direction from the Project Site
Multi-family residential community	545 feet southeast
Vallejo John F. Kennedy Library	615 feet east
Pathways Charter School	2,155 feet east

1. Distances are measured from the Project site boundary to the property line.
Source: Google Earth, 2023.

Source: ESRI, 2023

Figure 6: Sensitive Receptors

WETA Vallejo Ferry Terminal Reconfiguration Project

Not to scale

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3 REGULATORY SETTING

3.1 FEDERAL

Federal Clean Air Act

Air quality is federally protected by the Federal Clean Air Act (FCAA) and its amendments. Under the FCAA, the U.S. Environmental Protection Agency (EPA) developed the primary and secondary National Ambient Air Quality Standards (NAAQS) for the criteria air pollutants including ozone, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, and lead. Depending on whether the standards are met or exceeded, the local air basin is classified as in "attainment" or "nonattainment." Some areas are unclassified, which means no monitoring data are available. Unclassified areas are considered to be in attainment. Proposed projects in or near nonattainment areas could be subject to more stringent air-permitting requirements. The FCAA requires that each state prepare a State Implementation Plan (SIP) to demonstrate how it will attain the NAAQS within the federally imposed deadlines.

The EPA has designated enforcement of air pollution control regulations to the individual states. Applicable federal standards are summarized in Table 4: State and Federal Ambient Air Quality Standards.

California Air Resources Board

CARB administers California's air quality policy. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 4, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates. In general, the Bay Area experiences low concentrations of most pollutants when compared to federal standards, except for O_3 and PM, for which standards are exceeded periodically. With respect to federal standards, the Bay Area's attainment status for 8-hour ozone is classified as "marginal nonattainment" and "nonattainment" for $PM_{2.5.}$ The region is also considered to be in nonattainment with the CAAQS for PM_{10} and $PM_{2.5}$. Area sources generate the majority of these airborne particulate emissions. The Basin is considered in attainment or unclassified with respect to the CO, NO_2 and SO_2 NAAQS and CAAQS.

The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the SIP for meeting federal clean air standards for the State of California. Like the EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events such as wildfires, volcanoes, etc. are not considered violations of a State standard, and are not used as a basis for designating areas as nonattainment. The applicable State standards are summarized in Table 4.

Table 4: State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	State Standards[1]		Federal Standards[2]	
		Concentration	Attainment Status	Concentration[3]	Attainment Status
Ozone (O_3)	8 Hour	0.070 ppm (137 µg/m³)	N[9]	0.070 ppm	N[4]
	1 Hour	0.09 ppm (180 µg/m³)	N	NA	N/A[5]
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m³)	A	9 ppm (10 mg/m³)	A[6]
	1 Hour	20 ppm (23 mg/m³)	A	35 ppm (40 mg/m³)	A
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm (339 µg/m³)	A	0.10 ppm[11]	U
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)	-	0.053 ppm (100 µg/m³)	A
Sulfur Dioxide[12] (SO_2)	24 Hour	0.04 ppm (105 µg/m³)	A	0.14 ppm (365 µg/m³)	A
	1 Hour	0.25 ppm (655 µg/m³)	A	0.075 ppm (196 µg/m³)	A
	Annual Arithmetic Mean	NA	-	0.03 ppm (80 µg/m³)	A
Particulate Matter (PM_{10})	24-Hour	50 µg/m³	N	150 µg/m³	U
	Annual Arithmetic Mean	20 µg/m³	N[7]	NA	-
Fine Particulate Matter ($PM_{2.5}$) [15]	24-Hour	NA	-	35 µg/m³	U/A
	Annual Arithmetic Mean	12 µg/m³	N[7]	12 µg/m³	N
Sulfates (SO_{4-2})	24 Hour	25 µg/m³	A	NA	-
Lead (Pb)[13, 14]	30-Day Average	1.5 µg/m³	-	NA	A
	Calendar Quarter	NA	-	1.5 µg/m³	A
	Rolling 3-Month Average	NA	-	0.15 µg/m³	-
Hydrogen Sulfide (H_2S)	1 Hour	0.03 ppm (0.15 µg/m³)	U	NA	-
Vinyl Chloride (C_2H_3Cl)	24 Hour	0.01 ppm (26 µg/m³)	-	NA	-
Visibility Reducing Particles[8]	8 Hour (10:00 to 18:00 PST)	-	U	-	-

A = attainment; N = nonattainment; U = unclassified; N/A = not applicable or no applicable standard; ppm = parts per million; µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter; – = not indicated or no information available.

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM_{10}, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the PM_{10} annual standard), then some measurements may be excluded. In particular, measurements are excluded that CARB determines would occur less than once per year on the average. The Lake Tahoe CO standard is 6.0 ppm, a level one-half the national standard and two-thirds the state standard.
2. National standards shown are the "primary standards" designed to protect public health. National standards other than for ozone, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.070 ppm (70 ppb) or less. The 24-hour PM_{10} standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m₃. The 24-hour $PM_{2.5}$ standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m³.
   Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM_{10} is met if the 3-year average falls below the standard at every site. The annual $PM_{2.5}$ standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard.
3. National air quality standards are set by the EPA at levels determined to be protective of public health with an adequate margin of safety.

4. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or less than 0.070 ppm. EPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the ozone level in the area.
5. The national 1-hour ozone standard was revoked by U.S. EPA on June 15, 2005.
6. In April 1998, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.
7 In June 2002, CARB established new annual standards for $PM_{2.5}$ and PM_{10}.
8 Statewide VRP Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.
9. The 8-hour CA ozone standard was approved by the Air Resources Board on April 28, 2005 and became effective on May 17, 2006.
10. On January 9, 2013, EPA issued a final rule to determine that the Bay Area attains the 24-hour $PM_{2.5}$ national standard. This EPA rule suspends key SIP requirements as long as monitoring data continues to show that the Bay Area attains the standard. Despite this EPA action, the Bay Area will continue to be designated as "nonattainment" for the national 24-hour $PM_{2.5}$ standard until such time as the Air District submits a "redesignation request" and a "maintenance plan" to EPA, and EPA approves the proposed redesignation.
11. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100ppm (effective January 22, 2010). The US Environmental Protection Agency (EPA) expects to make a designation for the Bay Area by the end of 2017.
12. On June 2, 2010, the U.S. EPA established a new 1-hour SO_2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO_2 NAAQS however must continue to be used until one year following U.S. EPA initial designations of the new 1-hour SO_2 NAAQS.
13. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure below which there are no adverse health effects determined.
14. National lead standard, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.
15. In December 2012, EPA strengthened the annual $PM_{2.5}$ National Ambient Air Quality Standards (NAAQS) from 15.0 to 12.0 micrograms per cubic meter ($\mu g/m^3$). In December 2014, EPA issued final area designations for the 2012 primary annual $PM_{2.5}$ NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

Source: Bay Area Air Quality Management District, *Air Quality Standards and Attainment Status*, 2017 http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status.

3.2 REGIONAL

Bay Area Air Quality Management District

The BAAQMD is the regional agency with jurisdiction over the nine-county region located in the Basin. The Association of Bay Area Governments (ABAG), Metropolitan Transportation Commission (MTC), county transportation agencies, cities and counties, and various nongovernmental organizations also join in the efforts to improve air quality through a variety of programs. These programs include the adoption of regulations and policies, as well as implementation of extensive education and public outreach programs.

Clean Air Plan

Air quality plans developed to meet federal requirements are referred to as State Implementation Plans. The federal and state Clean Air Acts require plans to be developed for areas designated as nonattainment (with the exception of areas designated as nonattainment for the state PM_{10} standard). The BAAQMD is responsible for developing a Clean Air Plan, which guides the region's air quality planning efforts to attain the CAAQS. The BAAQMD adopted the *2017 Clean Air Plan: Spare the Air, Cool the Climate* (2017 Clean Air Plan) on April 19, 2019, by the BAAQMD.

BAAQMD periodically develops air quality plans that outline the regional strategy to improve air quality and protect the climate. The most recent plan, 2017 Clean Air Plan, includes a wide range of control measures designed to reduce emissions of air pollutants and greenhouse gases (GHGs), including the

following examples that may be relevant to this Project: reduce emissions of toxic air contaminants by adopting more stringent limits and methods for evaluating toxic risks; implement pricing measures to reduce travel demand; accelerate the widespread adoption of electric vehicles; promote the use of clean fuels; promote energy efficiency in both new and existing buildings; and promote the switch from natural gas to electricity for space and water heating in Bay Area buildings.

The 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the plan describes how the BAAQMD will continue progress toward attaining all state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 Clean Air Plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious GHG reduction targets for 2030 and 2050 and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets. The 2017 Clean Air Plan contains district-wide control measures to reduce ozone precursor emissions (i.e., ROG and NO_X), particulate matter, TACs, and greenhouse gas emissions. The Bay Area 2017 Clean Air Plan updates the Bay Area 2010 Clean Air Plan in accordance with the requirements of the California Clean Air Act to implement "all feasible measures" to reduce ozone; provides a control strategy to reduce ozone, PM, TACs, and greenhouse gases in a single, integrated plan; reviews progress in improving air quality in recent years; and establishes emission control measures to be adopted or implemented in both the short term and through 2050.

The 2017 Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

The following BAAQMD rules would limit emissions of air pollutants from construction and operation of the Project:

- Regulation 6, Rule 3 – Wood-Burning Devices. The purpose of this rule is to limit emissions of particulate matter and visible emissions from wood-burning devices used for primary heat, supplemental heat or ambiance.

- Regulation 8, Rule 3 – Architectural Coatings. This rule governs the manufacture, distribution, and sale of architectural coatings and limits the reactive organic gases content in paints and paint solvents. Although this rule does not directly apply to the Project, it does dictate the ROG content of paint available for use during the construction.

- Regulation 8, Rule 15 – Emulsified and Liquid Asphalts. This rule dictates the reactive organic gases content of asphalt available for use during construction through regulating the sale and use of asphalt and limits the ROG content in asphalt. Although this rule does not directly apply to the project, it does dictate the ROG content of asphalt for use during the construction.

- Regulation 9, Rule 8 – Organic Compounds. This rule limits the emissions of nitrogen oxides and carbon monoxide from stationary internal combustion engines with an output rated by the manufacturer at more than 50 brake horsepower.

BAAQMD prepared an Ozone Attainment Demonstration Plan to satisfy the federal 1-hour ozone planning requirement because of the Air Basin's nonattainment for federal and State ozone standards. The U.S. EPA revoked the 1-hour ozone standard and adopted an 8-hour ozone standard. The BAAQMD will address the new federal 8-hour ozone planning requirements once they are established.

3.3 LOCAL

City of Vallejo General Plan

The Vallejo General Plan includes the following policies intended to control or reduce air pollution impacts:

Policy CP – 1.12: Clean Air. Protect the community from harmful levels of air pollution.

Action CP-1.12A: Convert the City fleet of street sweepers and other large-scale equipment from fossil fuel to alternative fuel types, and work with service providers to convert refuse and recycling trucks to alternative fuels, in conformance with Bay Area Air Quality Management District (BAAQMD) requirements for fleets.

Action CP-1.12B: Update City regulations to set BAAQMD-recommended limits for particulate emissions from construction, demolition, debris hauling, and utility maintenance.

Action CP-1.12C: Provide information regarding advances in air-quality protection measures to schools, home owners, and operators of "sensitive receptors" such as senior and child care facilities.

Action CP-1.12D: Periodically review and update City regulations to comply with changes in State law and BAAQMD Guidelines pertaining to coal and wood-burning devices.

Action CP-1.12E: Periodically review the Building Code for consistency with the latest California Green Building Standards Code, and assess the need for updates to require new construction and remodels to employ best practices and materials to reduce emissions, both during and after construction.

Action CP-1.12F: Update City regulations to prohibit grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour, or require the use of water trucks to wet soil.

4 SIGNIFICANCE CRITERIA AND METHODOLOGY

4.1 AIR QUALITY THRESHOLDS

State CEQA Guidelines Appendix G

Based upon the criteria derived from California Environmental Quality Act (CEQA) Guidelines Appendix G, a project normally would have a significant effect on the environment if it would:

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan?

AQ-2 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

AQ-3 Expose sensitive receptors to substantial pollutant concentrations?

AQ-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Air Quality Thresholds

Under CEQA, BAAQMD is an expert commenting agency on air quality within its jurisdiction or impacting its jurisdiction. Under the FCAA, BAAQMD has adopted federal attainment plans for O_3 and $PM_{2.5}$. BAAQMD reviews projects to ensure that they would not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any Federal attainment plan.

The BAAQMD Thresholds of Significance Justification (2022) establishes thresholds based on substantial evidence within the BAAQMD 2022 CEQA Air Quality Guidelines. The thresholds have been developed by BAAQMD to attain State and federal ambient air quality standards, which are set at levels protective of human health. Therefore, projects below these thresholds would not violate an air quality standard and would not make a cumulatively considerable contribution to an existing or projected cumulative air quality violation in the Air Basin.

The BAAQMD's CEQA Air Quality Guidelines provides significance thresholds for both construction and operations of project. Ultimately the lead agency determines the thresholds of significance for impacts. However, if a project proposes development in excess of the established thresholds, as outlined below, a significant air quality impact may occur.

Table 5: Bay Area Air Quality Management District Emissions Thresholds

Criteria Air Pollutants and Precursors (Regional)	Construction-Related	Operational-Related	
	Average Daily Emissions (pounds/day)	Average Daily Emission (pounds/day)	Annual Average Emission (tons/year)
Reactive Organic Gases (ROG)	54	54	10
Nitrogen Oxides (NO_X)	54	54	10
Coarse Particulates (PM_{10})	82 (exhaust)	82	15
Fine Particulates ($PM_{2.5}$)	54 (exhaust)	54	10
PM_{10} / $PM_{2.5}$ (fugitive dust)	Best Management Practices	None	
Local CO	None	9.0 ppm (8-hour average) 20.0 ppm (1-hour average)	
Source: Bay Area Air Quality Management District, *2022 CEQA Air Quality Guidelines*, 2022.			

Projects that require federal funding or approval in nonattainment areas are required to show comply with the Federal Transit Administration's (FTA) National Environmental Policy Act (NEPA) requirements. The proposed Project is located in the San Francisco Bay Area Air Basin (SFBAAB), which is federally designated as nonattainment for ozone and $PM_{2.5}$. Conformity is outlined in 40 Code of Federal Regulations Part 51 Subpart W, which requires any project that is located in an area where any criteria air pollutant is nonattainment to show that the total Project-related emissions of that particular criteria air pollutant is less than the *de minimis* levels provided in Table 6: SFBAAB *De Minimis* Thresholds. Only construction-related emissions are analyzed as the Project is not anticipated to generate any new operational emissions.

Table 6: SFBAAB *De Minimis* Thresholds

Criteria Air Pollutants and Precursors (Regional)	Attainment Statues	De Minimis Threshold (tons per year)
Ozone (O_3)	Marginal Nonattainment	
VOCs		100
Nitrogen Oxides (NO_X)		100
Carbon Monoxide (CO)	Attainment	100
Coarse Particulates (PM_{10})	Unclassified	None
Fine Particulates ($PM_{2.5}$)	Moderate Nonattainment	100
Sulfur Dioxide ($S0_2$)	Attainment	100
Source: United States Environmental Protection Agency, *De Minimis Tables,* 2023.		

4.2 METHODOLOGY

This air quality impact analysis considers construction impacts associated with the Project. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod). CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Air quality impacts were assessed according to methodologies recommended by CARB and the BAAQMD.

Construction equipment, trucks, worker vehicles, and ground-disturbing activities associated with Project construction would generate emissions of criteria air pollutants and precursors. Air quality impacts were

assessed according to CARB and BAAQMD recommended methodologies. Daily regional construction emissions are estimated by assuming construction occurs at the earliest feasible date (i.e., a conservative estimate of construction activities) and applying off-road, fugitive dust, and on-road emissions factors in CalEEMod. The Project Alternative 3 was modeled in CalEEMod to provide the most conservative estimate as it is the largest of the three proposed terminal alternatives and would require the highest amount of construction equipment to complete.

As mentioned previously, the Project would construct an extended ferry terminal with a new reconfigured gangway, passenger float, and piles. The Project does not propose any new sources of air pollutants and would provide improved terminal operations and reduced dredging impacts. Thus, operational emissions would not change from existing conditions and the Project would have no impact on existing operational emissions.

5 POTENTIAL IMPACTS AND MITIGATION

5.1 AIR QUALITY ANALYSIS

Threshold AQ-1: Would the Project conflict with or obstruct implementation of the applicable air quality plan?

BAAQMD's most recently adopted plan, the 2017 Clean Air Plan, in the Basin outlines how the San Francisco area will attain air quality standards, reduce population exposure and protect public health, and reduce GHG emissions. BAAQMD has not established a quantitative threshold of significance for project-level consistency with an air quality plan. However, per BAAQMD guidelines, if a project is consistent with Criterion 1 through Criterion 3 (see analysis below), the Project would not conflict with or obstruct the implementation of the applicable air plan.[1]

Criterion 1: Does the Project support the primary goals of the Air Quality Plan?

As described below, construction air quality emissions generated by the proposed Project would not exceed the BAAQMD's emissions thresholds. Operations of the Project would not change from the existing use and would not add any new mobile or stationary emitters in the Project vicinity. Since the proposed Project would not exceed the BAAQMD construction thresholds and would not result in any new operational emissions, the proposed Project would not be considered by the BAAQMD to be a substantial emitter of criteria air pollutants, and would not contribute to any non-attainment areas in the Basin.

A project would be consistent with the 2017 Clean Air Plan if it would not exceed the growth assumptions in the plan. The Project would not generate additional population growth or jobs in the City. Therefore, the Project would not conflict with the growth assumptions anticipated in the 2017 Clean Air Plan.

As discussed in the Vallejo Ferry Terminal Reconfiguration Project Greenhouse Gas Emissions Assessment (Kimley-Horn 2023), the Project would be consistent with the City's Climate Action Plan (CAP) and would not increase GHG emissions. Therefore, the Project would not conflict with the third goal of reducing GHG emissions and protecting the climate.

Criterion 2: Does the Project include applicable control measures from the Air Quality Plan?

The Project is consistent with the 2017 Clean Air Plan policies that are applicable to the Project site. As shown below, projects are considered consistent with the 2017 Clean Air Plan if they incorporate all applicable and feasible control measures from the 2017 Clean Air Plan and would not disrupt or hinder implementation of any 2017 Clean Air Plan control measures.

As discussed in Table 7: Project Consistency with Applicable Clean Air Plan Control Measures, the Project would comply with City, State, and regional requirements.

[1] BAAQMD, *CEQA Air Quality Guidelines*, 2017.

Table 7: Project Consistency with Applicable Clean Air Plan Control Measures

Control Measure	Project Consistency
Stationary Source Control Measures	
SS21: New Source Review of Toxic Air Contaminants	**Not Applicable**. The Project would not include uses that would generate new sources of TACs.
SS25: Coatings, Solvents, Lubricants, Sealants and Adhesives	**Consistent**. The Project would comply with Regulation 8, Rule 3: Architectural Coatings, which would dictate the ROG content of paint available for use during construction.
SS26: Surface Prep and Cleaning Solvent	
SS31: General Particulate Matter Emissions Limitation	**Consistent**. This control measure is implemented by the BAAQMD through Regulation 6, Rule 1. This Rule Limits the quantity of particulate matter in the atmosphere by controlling emission rates, concentration, visible emissions and opacity. The Project would be required to comply with applicable BAAQMD rules.
SS36: Particulate Matter from Trackout	**Consistent**. Mud and dirt that may be tracked out onto the nearby public roads during construction activities would be removed promptly by the contractor based on BAAQMD's requirements.
SS38: Fugitive Dust	**Consistent**. Material stockpiling and track out during site preparation activities would be required to utilize best management practices, such as watering exposed surfaces twice a day, covering haul trucks, keeping vehicle speeds on unpaved roads under 15 mph, to minimize the creation of fugitive dust.
SS40: Odors	**Consistent**. The Project would comply with BAAQMD Regulation 7 to strengthen odor standards and enhance enforceability.
Transportation Control Measures	
TR21: Commercial Harbor Craft	**Consistent**. The Project would comply with the CARB harbor craft air toxic control measure and the CARB commercial harbor craft regulations.
TR22: Construction, Freight and Farming Equipment	**Consistent**. The Project would comply through implementation of the BAAQMD standard condition, which requires construction equipment to be properly maintained.
Waste Management Control Measures	
WA1: Landfills	**Consistent**. The waste service provider for the Project would be required to meet the AB 341 and SB 939, 1374, and 1383 requirements that require waste service providers to divert and recycle waste. Per Cal Green requirements the Project would recycle construction waste.
WA3: Green Waste Diversion	
WA4: Recycling and Waste Reduction	
Source: BAAQMD, Clean Air Plan, 2017 and Kimley-Horn & Associates, 2023.	

As discussed above, the Project would not exceed the assumptions in the Clean Air Plan and impacts would be less than significant.

Criterion 3: Does the Project hinder or disrupt the implementation of any Air Quality Control Measures?

The Project proposes to construct an extended ferry terminal with a new reconfigured gangway, passenger float, and piles. The Project would not increase the regional population growth or generate any additional permanent jobs. Further, Table 7 outlines the Project's consistency with the applicable 2017 Clean Air Plan policies. Therefore, the Project would not hinder or disrupt the implementation of any 2017 Clean Air Plan Control Measures and impacts would be considered less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

Threshold AQ-2: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Construction Emissions

Project construction activities would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the Project area include ozone-precursor pollutants (i.e., ROG and NO_x) and PM_{10} and $PM_{2.5}$. Construction-generated emissions are short term and temporary, lasting only while construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the BAAQMD's thresholds of significance.

Construction results in the temporary generation of emissions during demolition, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities, as well as weather conditions and the appropriate application of water.

The duration of construction activities associated with the Project are estimated to last approximately five months, beginning in August 2025 and concluding in December 2025. The Project's construction-related emissions were calculated using the BAAQMD-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. Project demolition is anticipated to begin in August 2025 and last approximately two and a half months. Project construction is anticipated to begin in October 2025 and last approximately two and a half months. Both construction phases include additional equipment (cranes, pile driver, and tugboats) to account for waterside demolition and construction. Construction equipment would not differ between the three Project alternatives. Thus, construction emissions shown below are representative of all three alternatives. See Appendix A: Air Quality Data for additional information regarding the construction assumptions used in this analysis. The Project's predicted maximum daily construction-related emissions are summarized in Table 8: Construction-Related Emissions.

Table 8: Construction-Related Emissions

Construction Year	Pollutant (maximum pounds per day)[1]					
	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Exhaust		Fugitive Dust	
			Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
2025	3.17	37.68	1.11	1.04	0.28	0.06
Maximum Daily Construction	**3.17**	**37.68**	**1.11**	**1.04**	**0.28**	**0.06**
BAAQMD Significance Threshold[2,3]	*54*	*54*	*82*	*54*	*N/A*	*N/A*
Exceed BAAQMD Threshold?	**No**	**No**	**No**	**No**	**N/A**	**N/A**

1. Emissions were calculated using CalEEMod and EMFAC. Emissions include compliance with the BAAQMD's Basic Construction Mitigation Measures Recommended for All Projects. These measures include the following: water exposed surfaces two times daily; cover haul trucks; clean track outs with wet powered vacuum street sweepers; limit speeds on unpaved roads to 15 miles per hour; limit idle times to 5 minutes; properly maintain mobile and other construction equipment; and post a publicly visible sign with contact information to register dust complaints and take corrective action within 48 hours.
2. Bay Area Air Quality Management District, California Environmental Quality Act Air Quality Guidelines, updated April 2023.

Construction Year	Pollutant (maximum pounds per day)[1]					
	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Exhaust		Fugitive Dust	
			Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
3. BMPs = Best Management Practices. The BAAQMD recommends the implementation of all Basic Construction Mitigation Measures, whether or not construction-related emissions exceed applicable significance thresholds. Implementation of Basic Construction Mitigation measures are considered to mitigate fugitive dust emissions to be less than significant.						
Source: Refer to the CalEEMod outputs provided in Appendix A, *Air Quality Modeling Data*.						

Fugitive Dust Emissions. Fugitive dust emissions are associated with land clearing, ground excavation, demolition, and truck travel on unpaved roadways. Dust emissions also vary substantially from day to day, depending on the level of activity, the specific operations, and weather conditions. Fugitive dust emissions may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the Project vicinity. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. The BAAQMD recommends the implementation of all Basic Construction Control Measures, whether or not construction-related emissions exceed applicable significance. The Project would implement the BAAQMD Basic Construction Control Measures to control dust at the Project site during all phases of construction.

Construction Equipment and Worker Vehicle Exhaust. Exhaust emission factors for typical diesel-powered heavy equipment are based on the CalEEMod program defaults. Variables factored into estimating the total construction emissions include: level of activity, length of construction period, number of pieces/types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported onsite or offsite. Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the Project site, emissions produced on site as the equipment is used, and emissions from trucks transporting materials and workers to and from the site. Emitted pollutants would include ROG, NO_X, PM_{10}, and $PM_{2.5}$. The BAAQMD recommends the implementation of all Basic Construction Control Measures, whether or not construction-related emissions exceed applicable significance thresholds. As detailed in Table 8, Project construction emissions would implement the BAAQMD Basic Control Measures and would be below BAAQMD thresholds. Thus, construction emissions would result in a less than significant impact.

ROG Emissions. In addition to gaseous and particulate emissions, construction equipment and construction worker trips would result in ROG emissions, which are O_3 precursors. In accordance with the methodology prescribed by the BAAQMD, the ROG emissions associated with paving have been quantified with CalEEMod. The highest concentration of ROG emissions would be generated from demolition beginning in Summer 2025 and lasting approximately two months.

Summary. As shown in Table 8, all criteria pollutant emissions would remain below their respective thresholds. BAAQMD considers fugitive dust emissions to be potentially significant without implementation of the Construction Control Measures which help control fugitive dust. NOX emissions are primarily generated by engine combustion in construction equipment, haul trucks, and employee commuting, requiring the use of newer construction equipment with better emissions controls would reduce construction-related NOX emissions. With implementation of BAAQMD's Basic Construction

Control Measures, the proposed Project's construction would not worsen ambient air quality, create additional violations of federal and state standards, or delay the Basin's goal for meeting attainment standards. Impacts would be less than significant.

Operational Emissions

As mentioned previously, the Project would construct an extended ferry terminal with a new reconfigured gangway, passenger float, and piles. The Project does not propose any new sources of air pollutants and would provide improved terminal operations and reduced dredging impacts. The Project would not generate any additional traffic or population growth. Therefore, the operation of the Project would not generate any new criteria pollutant emissions and no operational air quality impacts would occur.

FTA NEPA Conformity Analysis

As shown in Table 9: Project General Conformity Emissions, the Project's emissions would not exceed the General Conformity de minimis thresholds in the SFBAAB. As mentioned previously, the Project's operational emissions are not included as the Project would not generate any new operational emissions.

Table 9: Project General Conformity Emissions

Construction Year	Pollutant (tons per year)[1]					
	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Coarse Particles ($PM_{2.5}$)	Fine Particles (PM_{10})	Sulfur Dioxide (SO_2)
2025	0.15	1.90	1.00	0.05	0.06	0.00
General Conformity Threshold[2]	*100*	*100*	*100*	*N/A*	*100*	*100*
Exceed BAAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

1. Emissions were calculated using CalEEMod and EMFAC. Emissions include compliance with the BAAQMD's Basic Construction Mitigation Measures Recommended for All Projects. These measures include the following: water exposed surfaces two times daily; cover haul trucks; clean track outs with wet powered vacuum street sweepers; limit speeds on unpaved roads to 15 miles per hour; limit idle times to 5 minutes; properly maintain mobile and other construction equipment; and post a publicly visible sign with contact information to register dust complaints and take corrective action within 48 hours.
2. United States Environmental Protection Agency, *De Minimis Tables*, 2023.

Source: Refer to the CalEEMod outputs provided in Appendix A, *Air Quality Modeling Data*.

Cumulative Short-Term Emissions

The SFBAAB is designated nonattainment for O_3, PM_{10}, and $PM_{2.5}$ for State standards and nonattainment for O_3 and $PM_{2.5}$ for Federal standards. As discussed above, the Project's construction-related emissions by themselves would not have the potential to exceed the BAAQMD significance thresholds for criteria pollutants.

Since these thresholds indicate whether an individual project's emissions have the potential to affect cumulative regional air quality, it can be expected that the Project-related construction emissions would not be cumulatively considerable. The BAAQMD recommends Basic Construction Control Measures for all projects whether or not construction-related emissions exceed the thresholds of significance. Compliance with BAAQMD construction-related mitigation requirements are considered to reduce cumulative impacts

at a Basin-wide level. As a result, construction emissions associated with the Project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Cumulative Long-Term Impacts

The BAAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. The BAAQMD developed the operational thresholds of significance based on the level above which a project's individual emissions would result in a cumulatively considerable contribution to the Basin's existing air quality conditions. Therefore, a project that exceeds the BAAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.

As described above, the Project would not generate any new operational emissions. As a result, operational emissions associated with the Project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact

Threshold AQ-3: Would the Project expose sensitive receptors to substantial pollutant concentrations?

Sensitive land uses are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. Sensitive receptors in the area include residential uses along Mare Island Way.

Toxic Air Contaminants

Construction equipment and associated heavy-duty truck traffic generate diesel exhaust, which is a known toxic air contaminants (TACs). Diesel exhaust from construction equipment operating at the site poses a health risk to nearby sensitive receptors. The closest sensitive receptor to the Project site are the residences along Mare Island Way, to the southeast of the Project site. The BAAQMD provides guidance for evaluating impacts from TACs in its CEQA Air Quality Guidelines document. As noted therein, an incremental cancer risk of greater than 10 cases per million at the Maximally Exposed Individual (MEI) will result in a significant impact. The BAAQMD considers exposure to annual $PM_{2.5}$ concentrations that exceed 0.3 $\mu g/m^3$ from a single source to be significant. The BAAQMD significance threshold for non-cancer hazards is 1.0.

Stationary sources within a 1,000-foot radius of the Project site were identified using BAAQMD's Stationary Source Screening Analysis Tools and consultation with the BAAQMD. There were no other stationary sources located within 1,000 feet of the proposed Project site.

Construction-Related Diesel Particulate Matter

Project construction would generate diesel particulate matter (DPM) emissions from the use of off-road diesel equipment required for construction activities. For construction activity, DPM is the primary toxic air contaminant of concern. On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they would not stay on the site for long durations. Diesel exhaust from construction equipment operating at the site poses a health risk to nearby sensitive receptors.

The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they would not stay on the site for long durations.

Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer. The use of diesel-powered construction equipment would be episodic and would occur in various phases throughout the Project site. Additionally, construction activities would limit idling to no more than five minutes (per State standards), which would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. Furthermore, even during the most intense year of construction, emissions of DPM would be generated from different locations on the Project site rather than in a single location because different types of construction activities (e.g., demolition and building construction) would not occur at the same place at the same time.

$PM_{2.5}$ construction emissions rates in grams per second were calculated from the total annual mitigated on-site exhaust emissions reported in CalEEMod total during construction. It should be noted that although construction would span over several years, the modeling conservatively uses the year with the highest emission for each phase. Annual emissions were converted to grams per second and these emissions rates were input into AERMOD.

As noted above, maximum (worst case) $PM_{2.5}$ exhaust construction emissions over the entire construction period were used in AERMOD to approximate construction DPM emissions. Risk levels were calculated based on the California Office of Environmental Health Hazard Assessment (OEHHA) guidance document, Air Toxics Hot Spots Program Risk Assessment Guidelines (February 2015). Results of this assessment are summarized in Table 10: Construction Risk.

Table 10: Construction Risk

Exposure Scenario	Pollutant Concentration ($\mu g/m^3$)	Maximum Cancer Risk (Risk per Million)	Chronic Noncancer Hazard
Construction (Worker)	0.148	4.62	0.592
Construction (Resident)	0.032	9.94	0.120
Threshold	*0.3*	*10 in one million*	*1.0*
Threshold Exceeded	**No**	**No**	**No**
Refer to Appendix A: Modeling Data.			

Results of this assessment indicate that the maximum unmitigated concentration of $PM_{2.5}$ during construction would be 0.032 µg/m^3 for residences, which would not exceed the BAAQMD threshold of 0.3 µg/m^3. The pollutant concentrations for workers would be 0.148 µg/m^3 which is also below the BAAQMD threshold. The highest calculated carcinogenic risk from Project construction, would be 9.94 per million for residences and 4.62 per one million for workers, which would not exceed the BAAQMD threshold of 10 in one million. Non-cancer hazards for DPM would be below BAAQMD threshold, with a chronic hazard index computed at 0.592. Chronic hazards would be below the BAAQMD significance threshold of 1.0. As described above, worst-case construction risk levels based on AERMOD and conservative assumptions would be below the BAAQMD's thresholds. Therefore, construction risk levels would be less than significant.

Mobile Sources

The Project would not place sensitive receptors within 1,000-feet of a major roadway (mobile TAC source). A major roadway is defined by BAAQMD as any road that has more than 10,000 daily trips. Additionally, the Project would not affect existing vehicle distribution and travel speeds or generate any additional trips. Thus, the Project does not involve the increase of transit trips or routes and would not generate increased emissions from expanded service.

Carbon Monoxide Hotspots

The primary mobile-source criteria pollutant of local concern is carbon monoxide. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Transport of this criteria pollutant is extremely limited; CO disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. CO concentration modeling is therefore typically conducted for intersections that are projected to operate at unacceptable levels of service during peak commute hours.

The SFBAAB is designated as in attainment for carbon monoxide (CO). Emissions and ambient concentrations of CO have decreased dramatically in the SFBAAB with the introduction of the catalytic converter in 1975. No exceedances of the CAAQS or NAAQS for CO have been recorded at nearby monitoring stations since 1991. As a result, the BAAQMD screening criteria notes that CO impacts may be determined to be less than significant if a project would not increase traffic volumes at local intersections to more than 44,000 vehicles per hour, or 24,000 vehicles per hour for locations in heavily urban areas, where "urban canyons" formed by buildings tend to reduce air circulation.

As mentioned previously, the Project would not generate any additional trips or impact existing vehicle distribution. Therefore, the Project would not involve intersections with more than 24,000 or 44,000 vehicles per hour. As a result, the Project would not have the potential to create a CO hotspot and impacts would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

Threshold AQ-4: Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Construction

Construction activities associated with the Project may generate detectable odors from heavy duty equipment (i.e., diesel exhaust), as well as from architectural coatings and asphalt off-gassing. Odors generated from the referenced sources are common in the man-made environment and are not known to be substantially offensive to adjacent receptors. Any construction-related odors would be short-term in nature and cease upon Project completion. As a result, impacts to existing adjacent land uses from construction-related odors would be short-term in duration and therefore would be less than significant.

Operational

BAAQMD has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants. BAAQMD's thresholds for odors are qualitative based on BAAQMD's Regulation 7, Odorous Substances. This rule places general limitations on odorous substances and specific emission limitations on certain odorous compounds. The Project would not include any land use that has the potential to generate substantial odor nor add any additional sources of odorous substances. Thus, impacts would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance: No impact.

5.2 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

Cumulative Setting

The cumulative setting for air quality includes the City and the Air Basin. The Air Basin is designated as a nonattainment area for state standards of ozone, PM_{10}, and $PM_{2.5}$ and federal standards of ozone and $PM_{2.5,}$ attainment and serious maintenance for federal PM_{10} standards, and is designated as unclassified or attainment for all other pollutants. Cumulative growth in population and vehicle use could inhibit efforts to improve regional air quality and attain the ambient air quality standards.

Cumulative Impacts and Mitigation Measures

The BAAQMD CEQA Air Quality Guidelines do not include separate significance thresholds for cumulative operational or construction emissions. However, with respect to regional air pollution, the development of the Project would result in population growth that is consistent with ABAG projections and the City General Plan. Therefore, the Project would be consistent with the 2017 Clean Air Plan that uses ABAG population forecasts.

As described in threshold AQ-1 above, the Project would also be consistent with the appropriate 2017 Clean Air Plan control measures, which are provided to reduce air quality emissions for the entire Bay Area region. Additionally, the discussion in threshold AQ-2 addresses cumulative impacts and demonstrates that the Project would not exceed the applicable BAAQMD thresholds for construction or operations. The BAAQMD CEQA Air Quality Guidelines note that the nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size by itself to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. As mentioned on pages 2-10, 2-12, and 2-14 of the BAAQMD CEQA Guidelines (2022), if the project emissions of criteria air pollutants or its precursors are below the BAAQMD Thresholds of Significance, the project would result in a less than significant cumulative impact.

Consistency with the 2017 Clean Air Plan control measures would ensure that the Project would not make a cumulatively considerable contribution to air quality impacts in the Basin. In addition, in the discussion above in AQ-3 and AQ-4 the Project would not exceed the applicable BAAQMD thresholds for exposure of sensitive receptors to substantial pollutant concentrations after mitigation nor for other emissions (such as those leading to odors) adversely affecting a substantial number of people. Therefore, impacts would be less than significant and less than cumulatively considerable.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

6 REFERENCES

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16. United States Environmental Protection Agency, *De Minimis Tables*, 2023.
17. United States Environmental Protection Agency, *National Ambient Air Quality Standards Table*, 2016.
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Appendix A

Air Quality Modeling Data

WETA Vallejo Detailed Report

Table of Contents

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	WETA Vallejo
Construction Start Date	8/4/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.60
Precipitation (days)	34.8
Location	38.100147099068124, -122.26264310763507
County	Solano-San Francisco
City	Vallejo
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	823
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

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
Other Non-Asphalt Surfaces	9.10	1000sqft	0.21	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

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.	1.92	1.61	14.2	15.5	0.03	0.54	0.28	0.82	0.50	0.06	0.56	—	3,608	3,608	0.14	0.05	1.02	3,627
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.91	1.60	14.3	15.4	0.03	0.54	0.28	0.82	0.50	0.06	0.56	—	3,593	3,593	0.14	0.05	0.03	3,611
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.44	0.37	3.43	3.79	0.01	0.13	0.04	0.18	0.12	0.01	0.13	—	878	878	0.04	0.01	0.06	882
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.08	0.07	0.63	0.69	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	145	145	0.01	< 0.005	0.01	146

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2025	1.92	1.61	14.2	15.5	0.03	0.54	0.28	0.82	0.50	0.06	0.56	—	3,608	3,608	0.14	0.05	1.02	3,627
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.91	1.60	14.3	15.4	0.03	0.54	0.28	0.82	0.50	0.06	0.56	—	3,593	3,593	0.14	0.05	0.03	3,611
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.44	0.37	3.43	3.79	0.01	0.13	0.04	0.18	0.12	0.01	0.13	—	878	878	0.04	0.01	0.06	882
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.08	0.07	0.63	0.69	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	145	145	0.01	< 0.005	0.01	146

3. Construction Emissions Details

3.1. Demolition (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	1.81	1.52	14.1	14.6	0.03	0.54	—	0.54	0.49	—	0.49	—	3,320	3,320	0.13	0.03	—	3,332
Demolition	—	—	—	—	—	—	0.07	0.07	—	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.81	1.52	14.1	14.6	0.03	0.54	—	0.54	0.49	—	0.49	—	3,320	3,320	0.13	0.03	—	3,332

Demolitio	—	—	—	—	—	—	0.07	0.07	—	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	0.22	2.08	2.16	< 0.005	0.08	—	0.08	0.07	—	0.07	—	491	491	0.02	< 0.005	—	493
Demolitio n	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.39	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.3	81.3	< 0.005	< 0.005	—	81.6
Demolitio n	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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	0.10	0.09	0.06	0.91	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	201	201	< 0.005	0.01	0.83	205
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	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	86.1	86.1	< 0.005	0.01	0.19	90.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.81	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	186	186	0.01	0.01	0.02	189
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	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	86.1	86.1	< 0.005	0.01	< 0.005	90.3

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.9	27.9	< 0.005	< 0.005	0.05	28.3
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	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.7	12.7	< 0.005	< 0.005	0.01	13.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.62	4.62	< 0.005	< 0.005	0.01	4.68
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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.11	2.11	< 0.005	< 0.005	< 0.005	2.21

3.3. 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	1.07	0.90	8.80	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	2,295	2,295	0.09	0.02	—	2,303
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	0.16	0.14	1.33	1.52	< 0.005	0.06	—	0.06	0.05	—	0.05	—	346	346	0.01	< 0.005	—	347
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	0.02	0.24	0.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	57.3	57.3	< 0.005	< 0.005	—	57.5
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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

4.10. 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)

Vegetatio	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	8/1/2025	10/15/2025	5.00	54.0	—
Building Construction	Building Construction	10/16/2025	12/31/2025	5.00	55.0	—

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
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	1.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Cranes	Diesel	Average	3.00	6.00	367	0.29
Demolition	Excavators	Diesel	Average	1.00	6.00	36.0	0.38
Demolition	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Building Construction	Cranes	Diesel	Average	3.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	22.5	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	1.22	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	0.00	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	0.00	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	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)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	263	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Other Non-Asphalt Surfaces	0.21	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

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

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. Biomass Cover Type

5.18.1.1. Unmitigated

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)

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	13.9	annual days of extreme heat
Extreme Precipitation	5.10	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	10.1	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
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	13.6
AQ-PM	39.2
AQ-DPM	75.4
Drinking Water	24.0
Lead Risk Housing	78.3
Pesticides	32.3
Toxic Releases	63.4
Traffic	10.0
Effect Indicators	—
CleanUp Sites	64.4
Groundwater	93.0
Haz Waste Facilities/Generators	81.0
Impaired Water Bodies	51.2
Solid Waste	43.9
Sensitive Population	—
Asthma	99.8
Cardio-vascular	91.6

Low Birth Weights	99.2
Socioeconomic Factor Indicators	—
Education	72.5
Housing	95.2
Linguistic	49.1
Poverty	97.4
Unemployment	99.1

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	1.090722443
Employed	2.284101116
Median HI	0.128320287
Education	—
Bachelor's or higher	26.30565892
High school enrollment	100
Preschool enrollment	16.65597331
Transportation	—
Auto Access	0.397792891
Active commuting	89.25959194
Social	—
2-parent households	0.641601437
Voting	31.59245477
Neighborhood	—
Alcohol availability	23.58526883

Park access	81.35506224
Retail density	74.04080585
Supermarket access	16.64314128
Tree canopy	51.99538047
Housing	—
Homeownership	3.849608623
Housing habitability	6.377518286
Low-inc homeowner severe housing cost burden	3.336327473
Low-inc renter severe housing cost burden	17.56704735
Uncrowded housing	51.79006801
Health Outcomes	—
Insured adults	49.23649429
Arthritis	1.4
Asthma ER Admissions	0.2
High Blood Pressure	1.5
Cancer (excluding skin)	22.7
Asthma	3.8
Coronary Heart Disease	1.7
Chronic Obstructive Pulmonary Disease	1.1
Diagnosed Diabetes	0.9
Life Expectancy at Birth	30.6
Cognitively Disabled	3.1
Physically Disabled	47.8
Heart Attack ER Admissions	2.0
Mental Health Not Good	14.3
Chronic Kidney Disease	2.1
Obesity	8.0

Pedestrian Injuries	88.6
Physical Health Not Good	5.8
Stroke	0.9
Health Risk Behaviors	—
Binge Drinking	98.2
Current Smoker	11.7
No Leisure Time for Physical Activity	6.8
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	44.7
Children	4.0
Elderly	20.2
English Speaking	38.4
Foreign-born	38.0
Outdoor Workers	8.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	9.4
Traffic Density	6.4
Traffic Access	87.4
Other Indices	—
Hardship	95.4
Other Decision Support	—
2016 Voting	11.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	94.0

Healthy Places Index Score for Project Location (b)	0.00
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
Construction: Construction Phases	Per Construction Questionnaire
Construction: Off-Road Equipment	Additional Equipment added for waterside demolition and construction

Model Output: OFFROAD2021 (v1.0.5) Emissions Inventory
Region Type: Sub-Area
Region: Contra Costa (SF)
Calendar Year: 2025
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2021 Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	Calendar Ye	Vehicle Category	Model Year	Horsepower Bin	Fuel	HC_tpd	ROG_tpd	TOG_tpd	CO_tpd	NOx_tpd	CO2_tpd	PM10_tpd	PM2.5_tpd	SOx_tpd	NH3_tpd	Fuel Consumptio	Total_Activ	Total_Population	Horsepower_Hours_hhpy
Contra Costa (SF)	2025	Commercial Harbor Craf	Aggregate	Aggregate	Diesel	0.005242344	0.006343236	0.007548975	0.023017957	0.095441893	13.39199	0.00232926	0.002227		0	450713.6823	27884.07	26.49999999	8700617.859

g/hph

	HC	ROG	TOG	CO	Nox	CO2	PM10	PM2_5	Sox	NH3	Fuel_gphr
2025	0.199513059	0.241410792	0.287298791	0.876017105	3.632326308	509.67232	0.088646984	0.0847465		0	17153255.39

Project Tugboats	2	
HP	731	
Hours per Day	2	
Days per Year	109	
1 pound =	453.5924	grams

Emissions Source	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	metric tons/yr	PM10 tons/yr
Project Tug Boats	1.56	23.42	5.65	0.00	0.57	0.55	3,286	162	0.031
	0.08	1.28	0.31	0.00	0.03	0.03			

Based on emission rates obtained from CARB OFFROAD Version 1.0.3.
Number of forklifts per SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Business Survey Results, June 2014.

CONSTRUCTION (UNMITIGATED)

AERMOD Location
564630.26 m E
4217165.70 m N

Construction Duration	Number of Months
2025	4
109	

	2025		Days	Vendor	Hauling	Vendor	Hauling
Demolition	8/1/2025	10/15/2025	54	0	1	0	65
Building Construction	10/16/2025	12/31/2025	55	0	0	0	0

On-Site Construction PM10 Exhaust (tons/yr)

Year	Phase	Unmitigated
2025	Demo	1.27E-02
2025	Building	9.26E-03
	Total 2026	**2.19E-02**

Off-Site Construction PM10 Exhaust (tons/yr)

Year	Phase	Unmitigated
2025	Demo	4.37E-05
2025	Building	0.00E+00
	Total 2026	**4.37E-05**

Construction
Group: ONSITE

PM2.5 Exhaust Onsite

Year	Tons/Year	g/s	Weighted Average On-Site Rate	AERMOD Unitized Rate (g/s)
2025	2.19E-02	0.006335	**6.33E-03**	1

Group: OFFSITE

	Trips		Miles		Weighted
Year	Vendor	Hauling	Vendor	Hauling	Trip length
2025	0	65	**8.4**	**20**	20.00

PM2.5 Exhaust Off-Site

	Tons/Year	g/s	g/s per mile	Weighted Average Off-Site Rate
2025	4.37E-05	0.000013	6.30734E-07	6.31E-07

Group: OFFSITE

Roadway	Speed	Length (meters)	Length (Miles)	Emissions (g/sec per mile)	Emission Rate (g/sec)	AERMOD Unitized Rate (g/s)
Mare Island Way	**35**	**721.2**	0.45	6.31E-07	2.83E-07	**1.00**

Group: TUGBOATS

	Emission Rate (g/sec)	AERMOD Unitized Rate (g/s)
60 mins (Idle)	**2.15E-03**	**1**
180 mins (running)	**6.45E-03**	**1**

CONSTRUCTION RISK (UNMITIGATED)

CONSTRUCTION RISK (UNMITIGATED)

Unmitigated				
Onsite	Offsite	Tugboat Idl	Tugboat	
6.33E-03	2.83E-07	2.15E-03	6.45E-03	

Discrete Receptor ID	X	Y	X, Y	Concentration (AVERAGE CONC) [ug/m^3] at 1 g/s				Concentration (AVERAGE CONC) [ug/m^3]				
				Onsite	Offsite	Tugboat (Idle)	Tugboat	Onsite	Offsite	Tugboat (Idle)	Tugboat	Unmitigated Total
1 UCART1	563957.3	4216840.29	563957.32, 4216840.29	0.0895	0.08217	0.08542	0.0756	5.67E-04	2.32E-08	1.84E-04	4.88E-04	1.24E-03
2 UCART1	563992.3	4216840.29	563992.32, 4216840.29	0.0997	0.08892	0.09606	0.08536	6.32E-04	2.51E-08	2.07E-04	5.51E-04	6.32E-04
3 UCART1	564027.3	4216840.29	564027.32, 4216840.29	0.10895	0.09616	0.1069	0.09521	6.90E-04	2.72E-08	2.30E-04	6.14E-04	6.90E-04
4 UCART1	564062.3	4216840.29	564062.32, 4216840.29	0.11917	0.10371	0.11801	0.10484	7.55E-04	2.93E-08	2.54E-04	6.77E-04	7.55E-04
5 UCART1	564097.3	4216840.29	564097.32, 4216840.29	0.13112	0.11201	0.13116	0.11623	8.31E-04	3.17E-08	2.82E-04	7.50E-04	8.31E-04
6 UCART1	564132.3	4216840.29	564132.32, 4216840.29	0.14536	0.12123	0.1472	0.13023	9.21E-04	3.43E-08	3.17E-04	8.40E-04	9.21E-04
7 UCART1	564167.3	4216840.29	564167.32, 4216840.29	0.16281	0.13136	0.16739	0.14828	1.03E-03	3.71E-08	3.60E-04	9.57E-04	1.03E-03
8 UCART1	564202.3	4216840.29	564202.32, 4216840.29	0.18393	0.14248	0.19203	0.17051	1.17E-03	4.03E-08	4.13E-04	1.10E-03	1.17E-03
9 UCART1	564237.3	4216840.29	564237.32, 4216840.29	0.20987	0.15468	0.22484	0.20118	1.33E-03	4.37E-08	4.84E-04	1.30E-03	1.33E-03
10 UCART1	564272.3	4216840.29	564272.32, 4216840.29	0.23979	0.16754	0.25702	0.23013	1.52E-03	4.74E-08	5.53E-04	1.49E-03	1.52E-03
11 UCART1	564307.3	4216840.29	564307.32, 4216840.29	0.27604	0.18228	0.29628	0.26787	1.75E-03	5.15E-08	6.37E-04	1.73E-03	1.75E-03
12 UCART1	563957.3	4216875.29	563957.32, 4216875.29	0.09169	0.08386	0.08615	0.07644	5.81E-04	2.37E-08	1.85E-04	4.93E-04	5.81E-04
13 UCART1	563992.3	4216875.29	563992.32, 4216875.29	0.10199	0.09095	0.09726	0.0863	6.46E-04	2.57E-08	2.09E-04	5.57E-04	6.46E-04
14 UCART1	564027.3	4216875.29	564027.32, 4216875.29	0.11159	0.09856	0.10837	0.09602	7.07E-04	2.79E-08	2.33E-04	6.20E-04	7.07E-04
15 UCART1	564062.3	4216875.29	564062.32, 4216875.29	0.12233	0.10668	0.12	0.10588	7.75E-04	3.02E-08	2.58E-04	6.83E-04	7.75E-04
16 UCART1	564097.3	4216875.29	564097.32, 4216875.29	0.13493	0.11571	0.13387	0.11766	8.55E-04	3.27E-08	2.88E-04	7.59E-04	8.55E-04
17 UCART1	564132.3	4216875.29	564132.32, 4216875.29	0.15069	0.12574	0.15257	0.13444	9.55E-04	3.55E-08	3.28E-04	8.68E-04	9.55E-04
18 UCART1	564167.3	4216875.29	564167.32, 4216875.29	0.16925	0.13658	0.17651	0.15605	1.07E-03	3.86E-08	3.80E-04	1.01E-03	1.07E-03
19 UCART1	564202.3	4216875.29	564202.32, 4216875.29	0.19059	0.14823	0.19991	0.17594	1.21E-03	4.19E-08	4.30E-04	1.14E-03	1.21E-03
20 UCART1	564237.3	4216875.29	564237.32, 4216875.29	0.2172	0.16151	0.23044	0.20198	1.38E-03	4.57E-08	4.96E-04	1.30E-03	1.38E-03
21 UCART1	564272.3	4216875.29	564272.32, 4216875.29	0.25207	0.17773	0.27292	0.23911	1.60E-03	5.02E-08	5.87E-04	1.54E-03	1.60E-03
22 UCART1	564307.3	4216875.29	564307.32, 4216875.29	0.29473	0.19592	0.32429	0.28477	1.87E-03	5.54E-08	6.98E-04	1.84E-03	1.87E-03
23 UCART1	563957.3	4216910.29	563957.32, 4216910.29	0.09362	0.08543	0.08644	0.07716	5.93E-04	2.41E-08	1.86E-04	4.98E-04	5.93E-04
24 UCART1	563992.3	4216910.29	563992.32, 4216910.29	0.10396	0.09267	0.09715	0.08626	6.59E-04	2.62E-08	2.09E-04	5.57E-04	6.59E-04
25 UCART1	564027.3	4216910.29	564027.32, 4216910.29	0.11388	0.10062	0.10842	0.09576	7.21E-04	2.84E-08	2.33E-04	6.18E-04	7.21E-04
26 UCART1	564062.3	4216910.29	564062.32, 4216910.29	0.12525	0.1094	0.12091	0.10616	7.93E-04	3.09E-08	2.60E-04	6.85E-04	7.93E-04
27 UCART1	564097.3	4216910.29	564097.32, 4216910.29	0.13887	0.11931	0.1365	0.11935	8.80E-04	3.37E-08	2.94E-04	7.70E-04	8.80E-04
28 UCART1	564132.3	4216910.29	564132.32, 4216910.29	0.15577	0.13005	0.15986	0.14018	9.87E-04	3.68E-08	3.44E-04	9.05E-04	9.87E-04
29 UCART1	564167.3	4216910.29	564167.32, 4216910.29	0.17422	0.14152	0.17943	0.15646	1.10E-03	4.00E-08	3.86E-04	1.01E-03	1.10E-03
30 UCART1	564202.3	4216910.29	564202.32, 4216910.29	0.19823	0.15557	0.20814	0.18061	1.26E-03	4.40E-08	4.48E-04	1.17E-03	1.26E-03
31 UCART1	564237.3	4216910.29	564237.32, 4216910.29	0.22749	0.1713	0.2419	0.20824	1.44E-03	4.84E-08	5.20E-04	1.34E-03	1.44E-03
32 UCART1	564272.3	4216910.29	564272.32, 4216910.29	0.26262	0.18871	0.28108	0.23931	1.66E-03	5.33E-08	6.05E-04	1.54E-03	1.66E-03
33 UCART1	564307.3	4216910.29	564307.32, 4216910.29	0.30932	0.20851	0.33811	0.2869	1.96E-03	5.89E-08	7.27E-04	1.85E-03	1.96E-03
34 UCART1	564902.3	4216910.29	564902.32, 4216910.29	1.67143	10.0597	1.52531	2.47675	1.06E-02	2.84E-06	3.28E-03	1.60E-02	1.06E-02
35 UCART1	564937.3	4216910.29	564937.32, 4216910.29	1.58772	5.29103	1.35974	1.95983	1.01E-02	1.50E-06	2.92E-03	1.26E-02	1.01E-02
36 UCART1	564972.3	4216910.29	564972.32, 4216910.29	1.45994	3.3241	1.19221	1.57345	9.25E-03	9.40E-07	2.56E-03	1.02E-02	9.25E-03
37 UCART1	565007.3	4216910.29	565007.32, 4216910.29	1.31691	2.31243	1.02826	1.2694	8.34E-03	6.54E-07	2.21E-03	8.19E-03	8.34E-03
38 UCART1	565042.3	4216910.29	565042.32, 4216910.29	1.1814	1.76529	0.8837	1.03852	7.48E-03	4.99E-07	1.90E-03	6.70E-03	7.48E-03
39 UCART1	565077.3	4216910.29	565077.32, 4216910.29	1.0448	1.41634	0.77418	0.87884	6.62E-03	4.00E-07	1.67E-03	5.67E-03	6.62E-03
40 UCART1	565112.3	4216910.29	565112.32, 4216910.29	0.91724	1.1718	0.68346	0.75574	5.81E-03	3.31E-07	1.47E-03	4.88E-03	5.81E-03
41 UCART1	565147.3	4216910.29	565147.32, 4216910.29	0.80132	0.96761	0.60707	0.6575	5.08E-03	2.73E-07	1.31E-03	4.24E-03	5.08E-03
42 UCART1	565182.3	4216910.29	565182.32, 4216910.29	0.70203	0.82603	0.53881	0.57355	4.45E-03	2.33E-07	1.16E-03	3.70E-03	4.45E-03
43 UCART1	563957.3	4216945.29	563957.32, 4216945.29	0.09525	0.08692	0.08653	0.07784	6.03E-04	2.46E-08	1.86E-04	5.02E-04	6.03E-04
44 UCART1	563992.3	4216945.29	563992.32, 4216945.29	0.10567	0.09422	0.09632	0.08592	6.69E-04	2.66E-08	2.07E-04	5.54E-04	6.69E-04
45 UCART1	564027.3	4216945.29	564027.32, 4216945.29	0.11591	0.10247	0.10749	0.0951	7.34E-04	2.90E-08	2.31E-04	6.14E-04	7.34E-04
46 UCART1	564062.3	4216945.29	564062.32, 4216945.29	0.12799	0.11196	0.12113	0.10631	8.11E-04	3.16E-08	2.61E-04	6.86E-04	8.11E-04
47 UCART1	564097.3	4216945.29	564097.32, 4216945.29	0.14315	0.12273	0.1408	0.12289	9.07E-04	3.47E-08	3.03E-04	7.93E-04	9.07E-04
48 UCART1	564132.3	4216945.29	564132.32, 4216945.29	0.16028	0.13442	0.16294	0.14149	1.02E-03	3.80E-08	3.50E-04	9.13E-04	1.02E-03
49 UCART1	564167.3	4216945.29	564167.32, 4216945.29	0.18044	0.1479	0.18321	0.15753	1.14E-03	4.18E-08	3.94E-04	1.02E-03	1.14E-03
50 UCART1	564202.3	4216945.29	564202.32, 4216945.29	0.20446	0.16299	0.20842	0.17736	1.30E-03	4.61E-08	4.48E-04	1.14E-03	1.30E-03
51 UCART1	564237.3	4216945.29	564237.32, 4216945.29	0.23502	0.18003	0.24387	0.20558	1.49E-03	5.09E-08	5.25E-04	1.33E-03	1.49E-03
52 UCART1	564272.3	4216945.29	564272.32, 4216945.29	0.27443	0.19944	0.29151	0.24372	1.74E-03	5.64E-08	6.27E-04	1.57E-03	1.74E-03
53 UCART1	564307.3	4216945.29	564307.32, 4216945.29	0.3272	0.22169	0.36092	0.30038	2.07E-03	6.27E-08	7.76E-04	1.94E-03	2.07E-03
54 UCART1	564902.3	4216945.29	564902.32, 4216945.29	2.13464	8.25778	1.72141	2.11377	1.35E-02	2.33E-06	3.70E-03	1.36E-02	1.35E-02
55 UCART1	564937.3	4216945.29	564937.32, 4216945.29	1.91391	4.5504	1.47013	1.68336	1.21E-02	1.29E-06	3.16E-03	1.09E-02	1.21E-02
56 UCART1	564972.3	4216945.29	564972.32, 4216945.29	1.68082	2.95518	1.23565	1.34589	1.06E-02	8.35E-07	2.66E-03	8.69E-03	1.06E-02
57 UCART1	565007.3	4216945.29	565007.32, 4216945.29	1.46363	2.16224	1.04203	1.09729	9.27E-03	6.11E-07	2.24E-03	7.08E-03	9.27E-03
58 UCART1	565042.3	4216945.29	565042.32, 4216945.29	1.26024	1.681	0.89295	0.91909	7.98E-03	4.75E-07	1.92E-03	5.93E-03	7.98E-03
59 UCART1	565077.3	4216945.29	565077.32, 4216945.29	1.08285	1.36214	0.77535	0.78485	6.86E-03	3.85E-07	1.67E-03	5.06E-03	6.86E-03
60 UCART1	565112.3	4216945.29	565112.32, 4216945.29	0.9311	1.13146	0.67902	0.67832	5.90E-03	3.20E-07	1.46E-03	4.38E-03	5.90E-03
61 UCART1	565147.3	4216945.29	565147.32, 4216945.29	0.80389	0.95607	0.59835	0.59118	5.09E-03	2.70E-07	1.29E-03	3.81E-03	5.09E-03
62 UCART1	565182.3	4216945.29	565182.32, 4216945.29	0.69842	0.81772	0.53103	0.5197	4.42E-03	2.31E-07	1.14E-03	3.35E-03	4.42E-03
63 UCART1	563957.3	4216980.29	563957.32, 4216980.29	0.09711	0.08834	0.08672	0.07855	6.15E-04	2.50E-08	1.87E-04	5.07E-04	6.15E-04
64 UCART1	563992.3	4216980.29	563992.32, 4216980.29	0.1066	0.09577	0.0958	0.08601	6.75E-04	2.71E-08	2.06E-04	5.55E-04	6.75E-04
65 UCART1	564027.3	4216980.29	564027.32, 4216980.29	0.11783	0.10434	0.10683	0.095	7.46E-04	2.95E-08	2.30E-04	6.13E-04	7.46E-04
66 UCART1	564062.3	4216980.29	564062.32, 4216980.29	0.13054	0.11445	0.12118	0.10661	8.27E-04	3.23E-08	2.61E-04	6.88E-04	8.27E-04
67 UCART1	564097.3	4216980.29	564097.32, 4216980.29	0.14669	0.12599	0.14378	0.12494	9.29E-04	3.56E-08	3.09E-04	8.06E-04	9.29E-04
68 UCART1	564132.3	4216980.29	564132.32, 4216980.29	0.16404	0.13821	0.16372	0.14102	1.04E-03	3.91E-08	3.52E-04	9.10E-04	1.04E-03
69 UCART1	564167.3	4216980.29	564167.32, 4216980.29	0.18589	0.15303	0.18884	0.16107	1.18E-03	4.33E-08	4.06E-04	1.04E-03	1.18E-03
70 UCART1	564202.3	4216980.29	564202.32, 4216980.29	0.21198	0.16995	0.21462	0.18092	1.34E-03	4.80E-08	4.62E-04	1.17E-03	1.34E-03
71 UCART1	564237.3	4216980.29	564237.32, 4216980.29	0.244	0.18889	0.24959	0.2077	1.55E-03	5.34E-08	5.37E-04	1.34E-03	1.55E-03
72 UCART1	564272.3	4216980.29	564272.32, 4216980.29	0.28762	0.21055	0.30479	0.25093	1.82E-03	5.95E-08	6.56E-04	1.62E-03	1.82E-03
73 UCART1	564307.3	4216980.29	564307.32, 4216980.29	0.34382	0.23556	0.37994	0.30964	2.18E-03	6.66E-08	8.17E-04	2.00E-03	2.18E-03
74 UCART1	564762.3	4216980.29	564762.32, 4216980.29	3.26062	5.77139	3.38465	5.20788	2.07E-02	1.63E-06	7.28E-03	3.36E-02	2.07E-02
75 UCART1	564797.3	4216980.29	564797.32, 4216980.29	3.41611	13.0786	3.07433	3.79011	2.16E-02	3.70E-06	6.61E-03	2.45E-02	2.16E-02
76 UCART1	564832.3	4216980.29	564832.32, 4216980.29	3.30634	20.9561	2.65061	2.85786	2.09E-02	5.92E-06	5.70E-03	1.84E-02	2.10E-02
77 UCART1	564867.3	4216980.29	564867.32, 4216980.29	2.99431	9.92086	2.21806	2.20765	1.90E-02	2.80E-06	4.77E-03	1.42E-02	1.90E-02
78 UCART1	564902.3	4216980.29	564902.32, 4216980.29	2.59109	5.39776	1.83472	1.74219	1.64E-02	1.53E-06	3.95E-03	1.12E-02	1.64E-02
79 UCART1	564937.3	4216980.29	564937.32, 4216980.29	2.18649	3.43854	1.50071	1.38417	1.39E-02	9.72E-07	3.23E-03	8.93E-03	1.39E-02
80 UCART1	564972.3	4216980.29	564972.32, 4216980.29	1.83881	2.46233	1.23354	1.11963	1.16E-02	6.96E-07	2.65E-03	7.23E-03	1.16E-02
81 UCART1	565007.3	4216980.29	565007.32, 4216980.29	1.53577	1.89601	1.03838	0.9349	9.73E-03	5.36E-07	2.23E-03	6.03E-03	9.73E-03
82 UCART1	565042.3	4216980.29	565042.32, 4216980.29	1.28667	1.51935	0.88582	0.7936	8.15E-03	4.29E-07	1.91E-03	5.12E-03	8.15E-03
83 UCART1	565077.3	4216980.29	565077.32, 4216980.29	1.0852	1.24961	0.76384	0.68192	6.87E-03	3.53E-07	1.64E-03	4.40E-03	6.87E-03
84 UCART1	565112.3	4216980.29	565112.32, 4216980.29	0.92388	1.04894	0.66666	0.59348	5.85E-03	2.96E-07	1.43E-03	3.83E-03	5.85E-03
85 UCART1	565147.3	4216980.29	565147.32, 4216980.29	0.79406	0.89282	0.58624	0.5206	5.03E-03	2.52E-07	1.26E-03	3.36E-03	5.03E-03
86 UCART1	565182.3	4216980.29	565182.32, 4216980.29	0.68918	0.76899	0.51967	0.46044	4.37E-03	2.17E-07	1.12E-03	2.97E-03	4.37E-03
87 UCART1	563957.3	4217015.29	563957.32, 4217015.29	0.09874	0.08966	0.08713	0.07919	6.26E-04	2.53E-08	1.87E-04	5.11E-04	6.26E-04
88 UCART1	563992.3	4217015.29	563992.32, 4217015.29	0.10877	0.0974	0.09639	0.08682	6.89E-04	2.75E-08	2.07E-04	5.60E-04	6.89E-04
89 UCART1	564027.3	4217015.29	564027.32, 4217015.29	0.11968	0.1063	0.10728	0.09569	7.58E-04	3.00E-08	2.31E-04	6.17E-04	7.58E-04
90 UCART1	564062.3	4217015.29	564062.32, 4217015.29	0.13267	0.11672	0.12095	0.10665	8.40E-04	3.30E-08	2.60E-04	6.88E-04	8.40E-04
91 UCART1	564097.3	4217015.29	564097.32, 4217015.29	0.14859	0.12916	0.13923	0.12108	9.41E-04	3.65E-08	2.99E-04	7.81E-04	9.41E-04
92 UCART1	564132.3	4217015.29	564132.32, 4217015.29	0.16828	0.14272	0.1671	0.14286	1.07E-03	4.03E-08	3.59E-04	9.22E-04	1.07E-03
93 UCART1	564167.3	4217015.29	564167.32, 4217015.29	0.19028	0.15791	0.18993	0.16052	1.21E-03	4.46E-08	4.09E-04	1.04E-03	1.21E-03
94 UCART1	564202.3	4217015.29	564202.32, 4217015.29	0.21839	0.17614	0.22156	0.18485	1.38E-03	4.98E-08	4.77E-04	1.19E-03	1.38E-03
95 UCART1	564237.3	4217015.29	564237.32, 4217015.29	0.25406	0.19781	0.26028	0.21405	1.61E-03	5.59E-08	5.60E-04	1.38E-03	1.61E-03
96 UCART1	564272.3	4217015.29	564272.32, 4217015.29	0.29992	0.222	0.31869	0.25801	1.90E-03	6.27E-08	6.86E-04	1.66E-03	1.90E-03
97 UCART1	564307.3	4217015.29	564307.32, 4217015.29	0.35974	0.25022	0.39249	0.31286	2.28E-03	7.07E-08	8.44E-04	2.02E-03	2.28E-03
98 UCART1	564762.3	4217015.29	564762.32, 4217015.29	5.39395	10.3892	4.42428	3.99221	3.42E-02	2.94E-06	9.52E-03	2.58E-02	3.42E-02
99 UCART1	564797.3	4217015.29	564797.32, 4217015.29	5.12519	16.2976	3.63303	2.96259	3.25E-02	4.61E-06	7.81E-03	1.91E-02	3.25E-02
100 UCART1	564832.3	4217015.29	564832.32, 4217015.29	4.43717	11.0711	2.90149	2.25631	2.81E-02	3.13E-06	6.24E-03	1.46E-02	2.81E-02
101 UCART1	564867.3	4217015.29	564867.32, 4217015.29	3.63334	6.17248	2.3027	1.75489	2.30E-02	1.74E-06	4.95E-03	1.13E-02	2.30E-02
102 UCART1	564902.3	4217015.29	564902.32, 4217015.29	2.90747	3.98598	1.83981	1.39466	1.84E-02	1.13E-06	3.96E-03	9.00E-03	1.84E-02
103 UCART1	564937.3	4217015.29	564937.32, 4217015.29	2.3489	2.78674	1.4708	1.11668	1.49E-02	7.88E-07	3.16E-03	7.21E-03	1.49E-02
104 UCART1	564972.3	4217015.29	564972.32, 4217015.29	1.89161	2.1097	1.21178	0.92591	1.20E-02	5.96E-07	2.61E-03	5.97E-03	1.20E-02
105 UCART1	565007.3	4217015.29	565007.32, 4217015.29	1.54275	1.67176	1.01798	0.78353	9.77E-03	4.73E-07	2.19E-03	5.06E-03	9.77E-03
106 UCART1	565042.3	4217015.29	565042.32, 4217015.29	1.27474	1.3614	0.86583	0.67119	8.08E-03	3.85E-07	1.86E-03	4.33E-03	8.08E-03
107 UCART1	565077.3	4217015.29	565077.32, 4217015.29	1.06813	1.13215	0.74496	0.58139	6.77E-03	3.20E-07	1.60E-03	3.75E-03	6.77E-03
108 UCART1	565112.3	4217015.29	565112.32, 4217015.29	0.90768	0.95797	0.64882	0.50954	5.75E-03	2.71E-07	1.40E-03	3.29E-03	5.75E-03
109 UCART1	565147.3	4217015.29	565147.32, 4217015.29	0.78051	0.82059	0.56984	0.45013	4.94E-03	2.32E-07	1.23E-03	2.90E-03	4.94E-03
110 UCART1	565182.3	4217015.29	565182.32, 4217015.29	0.67825	0.71011	0.50408	0.40038	4.30E-03	2.01E-07	1.08E-03	2.58E-03	4.30E-03
111 UCART1	563957.3	4217050.29	563957.32, 4217050.29	0.09942	0.09082	0.08755	0.07951	6.30E-04	2.57E-08	1.88E-04	5.13E-04	6.30E-04
112 UCART1	563992.3	4217050.29	563992.32, 4217050.29	0.10989	0.09883	0.09691	0.08719	6.96E-04	2.79E-08	2.08E-04	5.63E-04	6.96E-04
113 UCART1	564027.3	4217050.29	564027.32, 4217050.29	0.12114	0.1081	0.10805	0.0962	7.67E-04	3.06E-08	2.32E-04	6.21E-04	7.67E-04
114 UCART1	564062.3	4217050.29	564062.32, 4217050.29	0.13445	0.11892	0.12147	0.10691	8.52E-04	3.36E-08	2.61E-04	6.90E-04	8.52E-04
115 UCART1	564097.3	4217050.29	564097.32, 4217050.29	0.15066	0.1319	0.13902	0.12059	9.54E-04	3.73E-08	2.99E-04	7.78E-04	9.54E-04
116 UCART1	564132.3	4217050.29	564132.32, 4217050.29	0.17067	0.14664	0.16212	0.13824	1.08E-03	4.14E-08	3.49E-04	8.92E-04	1.08E-03
117 UCART1	564167.3	4217050.29	564167.32, 4217050.29	0.19495	0.16365	0.192	0.16073	1.23E-03	4.63E-08	4.13E-04	1.04E-03	1.24E-03
118 UCART1	564202.3	4217050.29	564202.32, 4217050.29	0.22388	0.18293	0.22434	0.18505	1.42E-03	5.17E-08	4.83E-04	1.19E-03	1.42E-03
119 UCART1	564237.3	4217050.29	564237.32, 4217050.29	0.2615	0.20633	0.2671	0.21674	1.66E-03	5.83E-08	5.75E-04	1.40E-03	1.66E-03
120 UCART1	564762.3	4217050.29	564762.32, 4217050.29	8.8113	15.6857	5.08101	2.97439	5.58E-02	4.43E-06	1.09E-02	1.92E-02	5.58E-02
121 UCART1	564797.3	4217050.29	564797.32, 4217050.29	7.10025	13.5928	3.83931	2.25003	4.50E-02	3.84E-06	8.26E-03	1.45E-02	4.50E-02
122 UCART1	564832.3	4217050.29	564832.32, 4217050.29	5.39439	7.45451	2.9301	1.74469	3.42E-02	2.11E-06	6.30E-03	1.13E-02	3.42E-02
123 UCART1	564867.3	4217050.29	564867.32, 4217050.29	4.00273	4.68753	2.25737	1.36883	2.54E-02	1.32E-06	4.86E-03	8.83E-03	2.54E-02
124 UCART1	564902.3	4217050.29	564902.32, 4217050.29	3.06013	3.2057	1.76421	1.09145	1.94E-02	9.06E-07	3.79E-03	7.04E-03	1.94E-02
125 UCART1	564937.3	4217050.29	564937.32, 4217050.29	2.35964	2.37636	1.41675	0.8951	1.49E-02	6.72E-07	3.05E-03	5.78E-03	1.49E-02
126 UCART1	564972.3	4217050.29	564972.32, 4217050.29	1.86917	1.85435	1.17073	0.75508	1.18E-02	5.24E-07	2.52E-03	4.87E-03	1.18E-02

127	UCART1	565007.3	4217050.29	565007.32, 4217050.29	1.51181	1.49156	0.98243	0.64603	9.58E-03	4.22E-07	2.11E-03	4.17E-03	9.58E-03
128	UCART1	565042.3	4217050.29	565042.32, 4217050.29	1.24559	1.22716	0.83492	0.55909	7.89E-03	3.47E-07	1.80E-03	3.61E-03	7.89E-03
129	UCART1	565077.3	4217050.29	565077.32, 4217050.29	1.04221	1.02669	0.71647	0.488	6.60E-03	2.90E-07	1.54E-03	3.15E-03	6.60E-03
130	UCART1	565112.3	4217050.29	565112.32, 4217050.29	0.88517	0.87245	0.622	0.43046	5.61E-03	2.47E-07	1.34E-03	2.78E-03	5.61E-03
131	UCART1	565147.3	4217050.29	565147.32, 4217050.29	0.76131	0.7505	0.54535	0.38308	4.82E-03	2.12E-07	1.17E-03	2.47E-03	4.82E-03
132	UCART1	565182.3	4217050.29	565182.32, 4217050.29	0.6617	0.65201	0.48212	0.34341	4.19E-03	1.84E-07	1.04E-03	2.22E-03	4.19E-03
133	UCART1	563957.3	4217085.29	563957.32, 4217085.29	0.09965	0.09186	0.08823	0.07964	6.31E-04	2.60E-08	1.90E-04	5.14E-04	6.31E-04
134	UCART1	563992.3	4217085.29	563992.32, 4217085.29	0.11064	0.1001	0.09768	0.08729	7.01E-04	2.83E-08	2.10E-04	5.63E-04	7.01E-04
135	UCART1	564027.3	4217085.29	564027.32, 4217085.29	0.12214	0.10973	0.10907	0.09639	7.74E-04	3.10E-08	2.35E-04	6.22E-04	7.74E-04
136	UCART1	564062.3	4217085.29	564062.32, 4217085.29	0.13611	0.12136	0.12408	0.10803	8.62E-04	3.43E-08	2.67E-04	6.97E-04	8.62E-04
137	UCART1	564097.3	4217085.29	564097.32, 4217085.29	0.15297	0.13466	0.14268	0.12221	9.69E-04	3.81E-08	3.07E-04	7.89E-04	9.69E-04
138	UCART1	564132.3	4217085.29	564132.32, 4217085.29	0.1735	0.15005	0.16772	0.14083	1.10E-03	4.24E-08	3.61E-04	9.09E-04	1.10E-03
139	UCART1	564167.3	4217085.29	564167.32, 4217085.29	0.19801	0.16831	0.19546	0.16165	1.25E-03	4.76E-08	4.20E-04	1.04E-03	1.25E-03
140	UCART1	564202.3	4217085.29	564202.32, 4217085.29	0.22859	0.19	0.22811	0.18555	1.45E-03	5.37E-08	4.91E-04	1.20E-03	1.45E-03
141	UCART1	564237.3	4217085.29	564237.32, 4217085.29	0.26752	0.21549	0.27114	0.21684	1.69E-03	6.09E-08	5.83E-04	1.40E-03	1.69E-03
142	UCART1	564657.3	4217085.29	564657.32, 4217085.29	17.7504	2.68551	14.2571	5.96269	1.12E-01	7.59E-07	3.07E-02	3.85E-02	1.12E-01
143	UCART1	564692.3	4217085.29	564692.32, 4217085.29	20.7886	4.79247	10.2771	3.93813	1.32E-01	1.35E-06	2.21E-02	2.54E-02	1.32E-01
144	UCART1	564727.3	4217085.29	564727.32, 4217085.29	17.7989	10.2513	7.10723	2.83662	1.13E-01	2.90E-06	1.53E-02	1.83E-02	1.13E-01
145	UCART1	564762.3	4217085.29	564762.32, 4217085.29	12.574	22.2974	5.03737	2.14004	7.97E-02	6.30E-06	1.08E-02	1.38E-02	7.97E-02
146	UCART1	564797.3	4217085.29	564797.32, 4217085.29	8.44588	10.0287	3.68045	1.65775	5.35E-02	2.83E-06	7.92E-03	1.07E-02	5.35E-02
147	UCART1	564832.3	4217085.29	564832.32, 4217085.29	5.73122	5.83445	2.75532	1.30395	3.63E-02	1.65E-06	5.93E-03	8.41E-03	3.63E-02
148	UCART1	564867.3	4217085.29	564867.32, 4217085.29	4.03734	3.88027	2.12385	1.05041	2.56E-02	1.10E-06	4.57E-03	6.78E-03	2.56E-02
149	UCART1	564902.3	4217085.29	564902.32, 4217085.29	2.99883	2.75031	1.65529	0.85048	1.90E-02	7.77E-07	3.56E-03	5.49E-03	1.90E-02
150	UCART1	564937.3	4217085.29	564937.32, 4217085.29	2.28433	2.0893	1.33316	0.71054	1.45E-02	5.91E-07	2.87E-03	4.59E-03	1.45E-02
151	UCART1	564972.3	4217085.29	564972.32, 4217085.29	1.79797	1.6505	1.09872	0.60609	1.14E-02	4.67E-07	2.36E-03	3.91E-03	1.14E-02
152	UCART1	565007.3	4217085.29	565007.32, 4217085.29	1.44955	1.33827	0.91964	0.52381	9.18E-03	3.78E-07	1.98E-03	3.38E-03	9.18E-03
153	UCART1	565042.3	4217085.29	565042.32, 4217085.29	1.19149	1.1069	0.77965	0.45749	7.55E-03	3.13E-07	1.68E-03	2.95E-03	7.55E-03
154	UCART1	565077.3	4217085.29	565077.32, 4217085.29	0.9957	0.93079	0.66878	0.40343	6.31E-03	2.63E-07	1.44E-03	2.60E-03	6.31E-03
155	UCART1	565112.3	4217085.29	565112.32, 4217085.29	0.84447	0.7939	0.58032	0.35917	5.35E-03	2.24E-07	1.25E-03	2.32E-03	5.35E-03
156	UCART1	565147.3	4217085.29	565147.32, 4217085.29	0.72482	0.68473	0.50821	0.3221	4.59E-03	1.94E-07	1.09E-03	2.08E-03	4.59E-03
157	UCART1	565182.3	4217085.29	565182.32, 4217085.29	0.62915	0.59665	0.44935	0.29112	3.99E-03	1.69E-07	9.67E-04	1.88E-03	3.99E-03
158	UCART1	563957.3	4217120.29	563957.32, 4217120.29	0.10057	0.09289	0.0896	0.07986	6.37E-04	2.63E-08	1.93E-04	5.15E-04	6.37E-04
159	UCART1	563992.3	4217120.29	563992.32, 4217120.29	0.11115	0.10138	0.09925	0.08754	7.04E-04	2.87E-08	2.13E-04	5.65E-04	7.04E-04
160	UCART1	564027.3	4217120.29	564027.32, 4217120.29	0.12266	0.11117	0.11023	0.0962	7.77E-04	3.14E-08	2.37E-04	6.21E-04	7.77E-04
161	UCART1	564062.3	4217120.29	564062.32, 4217120.29	0.13657	0.12295	0.12443	0.10711	8.65E-04	3.48E-08	2.68E-04	6.91E-04	8.65E-04
162	UCART1	564097.3	4217120.29	564097.32, 4217120.29	0.15413	0.13701	0.14495	0.12233	9.76E-04	3.87E-08	3.12E-04	7.89E-04	9.76E-04
163	UCART1	564132.3	4217120.29	564132.32, 4217120.29	0.17482	0.15311	0.17059	0.14126	1.11E-03	4.33E-08	3.67E-04	9.12E-04	1.11E-03
164	UCART1	564692.3	4217120.29	564692.32, 4217120.29	47.8099	7.26564	9.40865	2.51211	3.03E-01	2.05E-06	2.02E-02	1.62E-02	3.03E-01
165	UCART1	564727.3	4217120.29	564727.32, 4217120.29	25.5069	10.1036	6.18772	1.88976	1.62E-01	2.86E-06	1.33E-02	1.22E-02	1.62E-01
166	UCART1	564762.3	4217120.29	564762.32, 4217120.29	13.7185	14.9784	4.29803	1.45608	8.69E-02	4.23E-06	9.25E-03	9.40E-03	8.69E-02
167	UCART1	564797.3	4217120.29	564797.32, 4217120.29	8.15627	7.39241	3.12168	1.15324	5.17E-02	2.09E-06	6.71E-03	7.44E-03	5.17E-02
168	UCART1	564832.3	4217120.29	564832.32, 4217120.29	5.3195	4.54172	2.33716	0.92852	3.37E-02	1.28E-06	5.03E-03	5.99E-03	3.37E-02
169	UCART1	564867.3	4217120.29	564867.32, 4217120.29	3.73805	3.18769	1.82386	0.77393	2.37E-02	9.01E-07	3.92E-03	4.99E-03	2.37E-02
170	UCART1	564902.3	4217120.29	564902.32, 4217120.29	2.74859	2.36592	1.45128	0.6517	1.74E-02	6.69E-07	3.12E-03	4.21E-03	1.74E-02
171	UCART1	564937.3	4217120.29	564937.32, 4217120.29	2.08446	1.83457	1.17191	0.55286	1.32E-02	5.19E-07	2.52E-03	3.57E-03	1.32E-02
172	UCART1	564972.3	4217120.29	564972.32, 4217120.29	1.63282	1.46031	0.96541	0.47644	1.03E-02	4.13E-07	2.08E-03	3.07E-03	1.03E-02
173	UCART1	565007.3	4217120.29	565007.32, 4217120.29	1.31238	1.19125	0.80887	0.41611	8.31E-03	3.37E-07	1.74E-03	2.69E-03	8.31E-03
174	UCART1	565042.3	4217120.29	565042.32, 4217120.29	1.07779	0.99107	0.68805	0.36783	6.83E-03	2.80E-07	1.48E-03	2.37E-03	6.83E-03
175	UCART1	565077.3	4217120.29	565077.32, 4217120.29	0.90064	0.83744	0.59262	0.32824	5.71E-03	2.37E-07	1.27E-03	2.12E-03	5.71E-03
176	UCART1	565112.3	4217120.29	565112.32, 4217120.29	0.76548	0.71845	0.51744	0.29615	4.85E-03	2.03E-07	1.11E-03	1.91E-03	4.85E-03
177	UCART1	565147.3	4217120.29	565147.32, 4217120.29	0.65705	0.62162	0.45471	0.26814	4.16E-03	1.76E-07	9.78E-04	1.73E-03	4.16E-03
178	UCART1	565182.3	4217120.29	565182.32, 4217120.29	0.57082	0.54362	0.40368	0.24469	3.62E-03	1.54E-07	8.68E-04	1.58E-03	3.62E-03
179	UCART1	563957.3	4217155.29	563957.32, 4217155.29	0.1013	0.09376	0.09078	0.0797	6.42E-04	2.65E-08	1.95E-04	5.14E-04	6.42E-04
180	UCART1	563992.3	4217155.29	563992.32, 4217155.29	0.1112	0.10245	0.10046	0.08725	7.04E-04	2.90E-08	2.16E-04	5.63E-04	7.04E-04
181	UCART1	564027.3	4217155.29	564027.32, 4217155.29	0.12272	0.11248	0.11147	0.09575	7.77E-04	3.18E-08	2.40E-04	6.18E-04	7.77E-04
182	UCART1	564062.3	4217155.29	564062.32, 4217155.29	0.13652	0.12444	0.12511	0.1061	8.65E-04	3.52E-08	2.69E-04	6.85E-04	8.65E-04
183	UCART1	564097.3	4217155.29	564097.32, 4217155.29	0.15375	0.13914	0.14376	0.1199	9.74E-04	3.93E-08	3.09E-04	7.74E-04	9.74E-04
184	UCART1	564132.3	4217155.29	564132.32, 4217155.29	0.17505	0.15592	0.17093	0.13972	1.11E-03	4.41E-08	3.68E-04	9.02E-04	1.11E-03
185	UCART1	564692.3	4217155.29	564692.32, 4217155.29	51.7546	11.8716	5.79096	1.51966	3.28E-01	3.36E-06	1.25E-02	9.81E-03	3.28E-01
186	UCART1	564727.3	4217155.29	564727.32, 4217155.29	20.7489	20.0709	4.05696	1.20578	1.31E-01	5.67E-06	8.73E-03	7.78E-03	1.31E-01
187	UCART1	564762.3	4217155.29	564762.32, 4217155.29	10.3285	9.34392	2.90105	0.94429	6.54E-02	2.64E-06	6.24E-03	6.09E-03	6.54E-02
188	UCART1	564797.3	4217155.29	564797.32, 4217155.29	6.20758	5.35908	2.18782	0.77542	3.93E-02	1.51E-06	4.71E-03	5.00E-03	3.93E-02
189	UCART1	564832.3	4217155.29	564832.32, 4217155.29	4.15797	3.64096	1.71899	0.65824	2.63E-02	1.03E-06	3.70E-03	4.25E-03	2.63E-02
190	UCART1	564867.3	4217155.29	564867.32, 4217155.29	2.96337	2.66327	1.38017	0.56518	1.88E-02	7.53E-07	2.97E-03	3.65E-03	1.88E-02
191	UCART1	564902.3	4217155.29	564902.32, 4217155.29	2.20447	2.0308	1.12552	0.48837	1.40E-02	5.74E-07	2.42E-03	3.15E-03	1.40E-02
192	UCART1	564937.3	4217155.29	564937.32, 4217155.29	1.69203	1.5935	0.92878	0.42369	1.07E-02	4.50E-07	2.00E-03	2.73E-03	1.07E-02
193	UCART1	564972.3	4217155.29	564972.32, 4217155.29	1.3369	1.28215	0.77784	0.37118	8.47E-03	3.62E-07	1.67E-03	2.40E-03	8.47E-03
194	UCART1	565007.3	4217155.29	565007.32, 4217155.29	1.08134	1.05222	0.66004	0.32825	6.85E-03	2.97E-07	1.42E-03	2.12E-03	6.85E-03
195	UCART1	565042.3	4217155.29	565042.32, 4217155.29	0.89335	0.87915	0.56774	0.29347	5.66E-03	2.48E-07	1.22E-03	1.89E-03	5.66E-03
196	UCART1	565077.3	4217155.29	565077.32, 4217155.29	0.75046	0.74501	0.49362	0.26452	4.75E-03	2.11E-07	1.06E-03	1.71E-03	4.75E-03
197	UCART1	565112.3	4217155.29	565112.32, 4217155.29	0.64128	0.641	0.43452	0.24084	4.06E-03	1.81E-07	9.35E-04	1.55E-03	4.06E-03
198	UCART1	565147.3	4217155.29	565147.32, 4217155.29	0.5568	0.55954	0.38742	0.22162	3.53E-03	1.58E-07	8.33E-04	1.43E-03	3.53E-03
199	UCART1	565182.3	4217155.29	565182.32, 4217155.29	0.48738	0.49207	0.34736	0.20454	3.09E-03	1.39E-07	7.47E-04	1.32E-03	3.09E-03
200	UCART1	563957.3	4217190.29	563957.32, 4217190.29	0.10094	0.09444	0.09146	0.0791	6.39E-04	2.67E-08	1.97E-04	5.10E-04	6.39E-04
201	UCART1	563992.3	4217190.29	563992.32, 4217190.29	0.11078	0.10331	0.10109	0.08649	7.02E-04	2.92E-08	2.17E-04	5.58E-04	7.02E-04
202	UCART1	564027.3	4217190.29	564027.32, 4217190.29	0.12234	0.11368	0.11245	0.09509	7.75E-04	3.21E-08	2.42E-04	6.14E-04	7.75E-04
203	UCART1	564062.3	4217190.29	564062.32, 4217190.29	0.13606	0.12597	0.12599	0.10521	8.62E-04	3.56E-08	2.71E-04	6.79E-04	8.62E-04
204	UCART1	564097.3	4217190.29	564097.32, 4217190.29	0.153	0.14096	0.14375	0.1183	9.69E-04	3.98E-08	3.09E-04	7.63E-04	9.69E-04
205	UCART1	564692.3	4217190.29	564692.32, 4217190.29	23.1542	15.1537	2.71501	0.93473	1.47E-01	4.28E-06	5.84E-03	6.03E-03	1.47E-01
206	UCART1	564727.3	4217190.29	564727.32, 4217190.29	10.521	13.1374	2.11131	0.78408	6.66E-02	3.71E-06	4.54E-03	5.06E-03	6.67E-02
207	UCART1	564762.3	4217190.29	564762.32, 4217190.29	5.78899	6.59863	1.63592	0.64012	3.67E-02	1.87E-06	3.52E-03	4.13E-03	3.67E-02
208	UCART1	564797.3	4217190.29	564797.32, 4217190.29	3.74859	4.18813	1.33053	0.54772	2.37E-02	1.18E-06	2.86E-03	3.53E-03	2.37E-02
209	UCART1	564832.3	4217190.29	564832.32, 4217190.29	2.65819	2.9631	1.10663	0.47787	1.68E-02	8.38E-07	2.38E-03	3.08E-03	1.68E-02
210	UCART1	564867.3	4217190.29	564867.32, 4217190.29	1.98377	2.23132	0.93285	0.42097	1.26E-02	6.31E-07	2.01E-03	2.72E-03	1.26E-02
211	UCART1	564902.3	4217190.29	564902.32, 4217190.29	1.53037	1.73547	0.79181	0.37161	9.69E-03	4.91E-07	1.70E-03	2.40E-03	9.70E-03
212	UCART1	564937.3	4217190.29	564937.32, 4217190.29	1.20858	1.3776	0.67533	0.32803	7.66E-03	3.89E-07	1.45E-03	2.12E-03	7.66E-03
213	UCART1	564972.3	4217190.29	564972.32, 4217190.29	0.97801	1.11731	0.58131	0.29149	6.20E-03	3.16E-07	1.25E-03	1.88E-03	6.20E-03
214	UCART1	565007.3	4217190.29	565007.32, 4217190.29	0.80696	0.92177	0.50458	0.26072	5.11E-03	2.61E-07	1.09E-03	1.68E-03	5.11E-03
215	UCART1	565042.3	4217190.29	565042.32, 4217190.29	0.67884	0.7738	0.44275	0.2357	4.30E-03	2.19E-07	9.52E-04	1.52E-03	4.30E-03
216	UCART1	565077.3	4217190.29	565077.32, 4217190.29	0.58013	0.65903	0.39207	0.21488	3.68E-03	1.86E-07	8.43E-04	1.39E-03	3.68E-03
217	UCART1	565112.3	4217190.29	565112.32, 4217190.29	0.50432	0.57063	0.35116	0.19801	3.19E-03	1.61E-07	7.55E-04	1.28E-03	3.19E-03
218	UCART1	565147.3	4217190.29	565147.32, 4217190.29	0.44506	0.5015	0.31801	0.18433	2.82E-03	1.42E-07	6.84E-04	1.19E-03	2.82E-03
219	UCART1	565182.3	4217190.29	565182.32, 4217190.29	0.39463	0.44315	0.28867	0.17166	2.50E-03	1.25E-07	6.21E-04	1.11E-03	2.50E-03
220	UCART1	563957.3	4217225.29	563957.32, 4217225.29	0.10029	0.095	0.09174	0.07835	6.35E-04	2.69E-08	1.97E-04	5.06E-04	6.35E-04
221	UCART1	563992.3	4217225.29	563992.32, 4217225.29	0.10997	0.10397	0.1011	0.08547	6.97E-04	2.94E-08	2.17E-04	5.52E-04	6.97E-04
222	UCART1	564027.3	4217225.29	564027.32, 4217225.29	0.12142	0.11462	0.11244	0.09399	7.69E-04	3.24E-08	2.42E-04	6.07E-04	7.69E-04
223	UCART1	564062.3	4217225.29	564062.32, 4217225.29	0.1351	0.12737	0.12618	0.10423	8.56E-04	3.60E-08	2.71E-04	6.73E-04	8.56E-04
224	UCART1	564097.3	4217225.29	564097.32, 4217225.29	0.15223	0.14242	0.14504	0.11819	9.64E-04	4.03E-08	3.12E-04	7.63E-04	9.64E-04
225	UCART1	564552.3	4217225.29	564552.32, 4217225.29	5.59324	2.0794	3.96949	1.19519	3.54E-02	5.88E-07	8.54E-03	7.71E-03	3.54E-02
226	UCART1	564587.3	4217225.29	564587.32, 4217225.29	12.5594	3.32701	3.33827	1.02088	7.96E-02	9.40E-07	7.18E-03	6.59E-03	7.96E-02
227	UCART1	564622.3	4217225.29	564622.32, 4217225.29	21.6037	6.49905	2.54908	0.87326	1.37E-01	1.84E-06	5.48E-03	5.64E-03	1.37E-01
228	UCART1	564657.3	4217225.29	564657.32, 4217225.29	14.3864	11.7685	1.92777	0.75207	9.11E-02	3.33E-06	4.15E-03	4.85E-03	9.11E-02
229	UCART1	564692.3	4217225.29	564692.32, 4217225.29	7.50117	18.058	1.49051	0.64699	4.75E-02	5.10E-06	3.21E-03	4.18E-03	4.75E-02
230	UCART1	564727.3	4217225.29	564727.32, 4217225.29	4.4796	8.44845	1.18837	0.55519	2.84E-02	2.39E-06	2.56E-03	3.58E-03	2.84E-02
231	UCART1	564762.3	4217225.29	564762.32, 4217225.29	2.90512	4.96016	0.96403	0.47121	1.84E-02	1.40E-06	2.07E-03	3.04E-03	1.84E-02
232	UCART1	564797.3	4217225.29	564797.32, 4217225.29	2.06401	3.35876	0.81754	0.4124	1.31E-02	9.49E-07	1.76E-03	2.66E-03	1.31E-02
233	UCART1	564832.3	4217225.29	564832.32, 4217225.29	1.56267	2.45242	0.70778	0.36627	9.90E-03	6.93E-07	1.52E-03	2.36E-03	9.90E-03
234	UCART1	564867.3	4217225.29	564867.32, 4217225.29	1.23333	1.87359	0.61952	0.32775	7.81E-03	5.30E-07	1.33E-03	2.12E-03	7.81E-03
235	UCART1	564902.3	4217225.29	564902.32, 4217225.29	0.9935	1.48315	0.54354	0.29291	6.29E-03	4.19E-07	1.17E-03	1.89E-03	6.29E-03
236	UCART1	564937.3	4217225.29	564937.32, 4217225.29	0.81311	1.18564	0.47828	0.26185	5.15E-03	3.35E-07	1.03E-03	1.69E-03	5.15E-03
237	UCART1	564972.3	4217225.29	564972.32, 4217225.29	0.67842	0.96903	0.42335	0.23529	4.30E-03	2.74E-07	9.11E-04	1.52E-03	4.30E-03
238	UCART1	565007.3	4217225.29	565007.32, 4217225.29	0.57483	0.80461	0.37665	0.21248	3.64E-03	2.27E-07	8.10E-04	1.37E-03	3.64E-03
239	UCART1	565042.3	4217225.29	565042.32, 4217225.29	0.49416	0.67823	0.33729	0.19342	3.13E-03	1.92E-07	7.26E-04	1.25E-03	3.13E-03
240	UCART1	565077.3	4217225.29	565077.32, 4217225.29	0.43313	0.58279	0.30545	0.17845	2.74E-03	1.65E-07	6.57E-04	1.15E-03	2.74E-03
241	UCART1	565112.3	4217225.29	565112.32, 4217225.29	0.38458	0.5079	0.27866	0.166	2.44E-03	1.44E-07	5.99E-04	1.07E-03	2.44E-03
242	UCART1	565147.3	4217225.29	565147.32, 4217225.29	0.34407	0.44691	0.25525	0.15503	2.18E-03	1.26E-07	5.49E-04	1.00E-03	2.18E-03
243	UCART1	565182.3	4217225.29	565182.32, 4217225.29	0.30948	0.39622	0.23447	0.1451	1.96E-03	1.12E-07	5.04E-04	9.36E-04	1.96E-03
244	UCART1	564552.3	4217260.29	564552.32, 4217260.29	3.65352	2.7167	2.10203	0.76387	2.31E-02	7.68E-07	4.52E-03	4.93E-03	2.31E-02
245	UCART1	564587.3	4217260.29	564587.32, 4217260.29	5.344	4.87213	1.84066	0.69331	3.39E-02	1.38E-06	3.96E-03	4.47E-03	3.39E-02
246	UCART1	564622.3	4217260.29	564622.32, 4217260.29	6.17629	12.851	1.55877	0.62287	3.91E-02	3.63E-06	3.35E-03	4.02E-03	3.91E-02
247	UCART1	564657.3	4217260.29	564657.32, 4217260.29	5.10786	16.3104	1.27358	0.55405	3.24E-02	4.61E-06	2.74E-03	3.58E-03	3.24E-02
248	UCART1	564692.3	4217260.29	564692.32, 4217260.29	3.53769	10.6664	1.0143	0.48628	2.24E-02	3.01E-06	2.18E-03	3.14E-03	2.24E-02
249	UCART1	564727.3	4217260.29	564727.32, 4217260.29	2.42641	5.92158	0.81252	0.424	1.54E-02	1.67E-06	1.75E-03	2.74E-03	1.54E-02
250	UCART1	564762.3	4217260.29	564762.32, 4217260.29	1.72765	3.8177	0.6667	0.36981	1.09E-02	1.08E-06	1.43E-03	2.39E-03	1.09E-02
251	UCART1	564797.3	4217260.29	564797.32, 4217260.29	1.28973	2.70011	0.56813	0.32823	8.17E-03	7.63E-07	1.22E-03	2.12E-03	8.17E-03
252	UCART1	564832.3	4217260.29	564832.32, 4217260.29	1.01431	2.02045	0.49637	0.29482	6.43E-03	5.71E-07	1.07E-03	1.90E-03	6.43E-03
253	UCART1	564867.3	4217260.29	564867.32, 4217260.29	0.82728	1.57005	0.44068	0.26687	5.24E-03	4.44E-07	9.48E-04	1.72E-03	5.24E-03
254	UCART1	564902.3	4217260.29	564902.32, 4217260.29	0.68395	1.24652	0.39284	0.24083	4.33E-03	3.52E-07	8.45E-04	1.55E-03	4.33E-03
255	UCART1	564937.3	4217260.29	564937.32, 4217260.29	0.5728	1.01526	0.35162	0.2172	3.63E-03	2.87E-07	7.56E-04	1.40E-03	3.63E-03
256	UCART1	564972.3	4217260.29	564972.32, 4217260.29	0.48885	0.83799	0.31718	0.19709	3.10E-03	2.37E-07	6.82E-04	1.27E-03	3.10E-03
257	UCART1	565007.3	4217260.29	565007.32, 4217260.29	0.4225	0.70189	0.28736	0.17946	2.68E-03	1.98E-07	6.18E-04	1.16E-03	2.68E-03
258	UCART1	565042.3	4217260.29	565042.32, 4217260.29	0.36997	0.59641	0.26174	0.16444	2.34E-03	1.69E-07	5.63E-04	1.06E-03	2.34E-03
259	UCART1	565077.3	4217260.29	565077.32, 4217260.29	0.32969	0.51556	0.24054	0.15246	2.09E-03	1.46E-07	5.17E-04	9.84E-04	2.09E-03
260	UCART1	565112.3	4217260.29	565112.32, 4217260.29	0.29615	0.45035	0.22186	0.14203	1.88E-03	1.27E-07	4.77E-04	9.17E-04	1.88E-03
261	UCART1	565147.3	4217260.29	565147.32, 4217260.29	0.2673	0.39647	0.20503	0.13266	1.69E-03	1.12E-07	4.41E-04	8.56E-04	1.69E-03
262	UCART1	565182.3	4217260.29	565182.32, 4217260.29	0.24328	0.35263	0.19033	0.1246	1.54E-03	9.97E-08	4.09E-04	8.04E-04	1.54E-03
263	UCART1	564552.3	4217295.29	564552.32, 4217295.29	2.35576	3.77348	1.30026	0.5448	1.49E-02	1.07E-06	2.80E-03	3.52E-03	1.49E-02
264	UCART1	564587.3	4217295.29	564587.32, 4217295.29	2.83886	8.2294	1.177	0.50924	1.80E-02	2.33E-06	2.53E-03	3.29E-03	1.80E-02
265	UCART1	564622.3	4217295.29	564622.32, 4217295.29	2.93098	16.1861	1.04193	0.46893	1.86E-02	4.58E-06	2.24E-03	3.03E-03	1.86E-02

CONSTRUCTION RISK (UNMITIGATED)

266	UCART1	564657.3	4217295.29	564657.32, 4217295.29	2.58836	13.9616	0.89554	0.42525	1.64E-02	3.95E-06	1.93E-03	2.74E-03	1.64E-02
267	UCART1	564692.3	4217295.29	564692.32, 4217295.29	2.0769	7.10193	0.74849	0.38193	1.32E-02	2.01E-06	1.61E-03	2.46E-03	1.32E-02
268	UCART1	564727.3	4217295.29	564727.32, 4217295.29	1.60679	4.39951	0.62224	0.34281	1.02E-02	1.24E-06	1.34E-03	2.21E-03	1.02E-02
269	UCART1	564762.3	4217295.29	564762.32, 4217295.29	1.23227	2.99994	0.51791	0.30523	7.81E-03	8.48E-07	1.11E-03	1.97E-03	7.81E-03
270	UCART1	564797.3	4217295.29	564797.32, 4217295.29	0.9377	2.17095	0.43806	0.27155	5.94E-03	6.14E-07	9.42E-04	1.75E-03	5.94E-03
271	UCART1	564832.3	4217295.29	564832.32, 4217295.29	0.75632	1.65637	0.38312	0.24634	4.79E-03	4.68E-07	8.24E-04	1.59E-03	4.79E-03
272	UCART1	564867.3	4217295.29	564867.32, 4217295.29	0.623	1.30606	0.34087	0.22483	3.95E-03	3.69E-07	7.33E-04	1.45E-03	3.95E-03
273	UCART1	564902.3	4217295.29	564902.32, 4217295.29	0.52001	1.0501	0.30493	0.20432	3.29E-03	2.97E-07	6.56E-04	1.32E-03	3.29E-03
274	UCART1	564937.3	4217295.29	564937.32, 4217295.29	0.44029	0.8632	0.27468	0.18569	2.79E-03	2.44E-07	5.91E-04	1.20E-03	2.79E-03
275	UCART1	564972.3	4217295.29	564972.32, 4217295.29	0.38013	0.7202	0.24989	0.16983	2.41E-03	2.04E-07	5.38E-04	1.10E-03	2.41E-03
276	UCART1	565007.3	4217295.29	565007.32, 4217295.29	0.33211	0.60943	0.22861	0.15579	2.10E-03	1.72E-07	4.92E-04	1.01E-03	2.10E-03
277	UCART1	565042.3	4217295.29	565042.32, 4217295.29	0.2945	0.52324	0.2106	0.14385	1.87E-03	1.48E-07	4.53E-04	9.28E-04	1.87E-03
278	UCART1	565077.3	4217295.29	565077.32, 4217295.29	0.26319	0.45388	0.19465	0.13324	1.67E-03	1.28E-07	4.19E-04	8.60E-04	1.67E-03
279	UCART1	565112.3	4217295.29	565112.32, 4217295.29	0.23759	0.39795	0.18076	0.12419	1.51E-03	1.12E-07	3.89E-04	8.01E-04	1.51E-03
280	UCART1	565147.3	4217295.29	565147.32, 4217295.29	0.21559	0.35147	0.16825	0.11612	1.37E-03	9.93E-08	3.62E-04	7.49E-04	1.37E-03
281	UCART1	565182.3	4217295.29	565182.32, 4217295.29	0.19759	0.31365	0.15739	0.1093	1.25E-03	8.87E-08	3.39E-04	7.05E-04	1.25E-03
282	UCART1	564552.3	4217330.29	564552.32, 4217330.29	1.57477	5.81628	0.88306	0.4132	9.98E-03	1.64E-06	1.90E-03	2.67E-03	9.98E-03
283	UCART1	564587.3	4217330.29	564587.32, 4217330.29	1.72595	14.1665	0.81583	0.39191	1.09E-02	4.00E-06	1.75E-03	2.53E-03	1.09E-02
284	UCART1	564622.3	4217330.29	564622.32, 4217330.29	1.71661	19.4341	0.74049	0.36631	1.09E-02	5.49E-06	1.59E-03	2.36E-03	1.09E-02
285	UCART1	564657.3	4217330.29	564657.32, 4217330.29	1.55753	8.63934	0.65447	0.33575	9.87E-03	2.44E-06	1.41E-03	2.17E-03	9.87E-03
286	UCART1	564692.3	4217330.29	564692.32, 4217330.29	1.34744	5.01705	0.57183	0.30815	8.54E-03	1.42E-06	1.23E-03	1.99E-03	8.54E-03
287	UCART1	564727.3	4217330.29	564727.32, 4217330.29	1.1295	3.32424	0.49533	0.28357	7.16E-03	9.40E-07	1.07E-03	1.83E-03	7.16E-03
288	UCART1	564762.3	4217330.29	564762.32, 4217330.29	0.92228	2.35541	0.42284	0.25768	5.84E-03	6.66E-07	9.10E-04	1.66E-03	5.84E-03
289	UCART2	564797.3	4217330.29	564797.32, 4217330.29	0.73442	1.74338	0.35981	0.23154	4.65E-03	4.93E-07	7.74E-04	1.49E-03	4.65E-03
290	UCART3	564832.3	4217330.29	564832.32, 4217330.29	0.61311	1.35839	0.31724	0.21327	3.88E-03	3.84E-07	6.82E-04	1.38E-03	3.88E-03
291	UCART4	564867.3	4217330.29	564867.32, 4217330.29	0.51197	1.08455	0.28164	0.19543	3.24E-03	3.07E-07	6.06E-04	1.26E-03	3.24E-03
292	UCART5	564902.3	4217330.29	564902.32, 4217330.29	0.42165	0.88007	0.25033	0.17718	2.67E-03	2.49E-07	5.38E-04	1.14E-03	2.67E-03
293	UCART6	564937.3	4217330.29	564937.32, 4217330.29	0.36059	0.72948	0.22616	0.16223	2.28E-03	2.06E-07	4.86E-04	1.05E-03	2.28E-03
294	UCART7	564972.3	4217330.29	564972.32, 4217330.29	0.31499	0.61638	0.20682	0.14967	2.00E-03	1.74E-07	4.45E-04	9.66E-04	2.00E-03
295	UCART8	565007.3	4217330.29	565007.32, 4217330.29	0.27826	0.52788	0.19038	0.13848	1.76E-03	1.49E-07	4.10E-04	8.94E-04	1.76E-03
296	UCART9	565042.3	4217330.29	565042.32, 4217330.29	0.24822	0.45729	0.1762	0.12851	1.57E-03	1.29E-07	3.79E-04	8.29E-04	1.57E-03
297	UCART10	565077.3	4217330.29	565077.32, 4217330.29	0.22212	0.39887	0.16341	0.11922	1.41E-03	1.13E-07	3.52E-04	7.69E-04	1.41E-03
298	UCART11	565112.3	4217330.29	565112.32, 4217330.29	0.20084	0.35149	0.15231	0.11118	1.27E-03	9.93E-08	3.28E-04	7.17E-04	1.27E-03
299	UCART12	565147.3	4217330.29	565147.32, 4217330.29	0.18249	0.31172	0.14232	0.10399	1.16E-03	8.81E-08	3.06E-04	6.71E-04	1.16E-03
300	UCART13	565182.3	4217330.29	565182.32, 4217330.29	0.16763	0.2791	0.13369	0.09795	1.06E-03	7.89E-08	2.88E-04	6.32E-04	1.06E-03
301	UCART14	564552.3	4217365.29	564552.32, 4217365.29	1.10077	11.0156	0.63875	0.32643	6.97E-03	3.11E-06	1.37E-03	2.11E-03	6.98E-03
302	UCART15	564587.3	4217365.29	564587.32, 4217365.29	1.14929	18.4273	0.59687	0.31168	7.28E-03	5.21E-06	1.28E-03	2.01E-03	7.29E-03
303	UCART16	564622.3	4217365.29	564622.32, 4217365.29	1.1272	10.9035	0.5504	0.29403	7.14E-03	3.08E-06	1.18E-03	1.90E-03	7.14E-03
304	UCART17	564657.3	4217365.29	564657.32, 4217365.29	1.04569	5.78942	0.49834	0.2732	6.62E-03	1.64E-06	1.07E-03	1.76E-03	6.63E-03
305	UCART18	564692.3	4217365.29	564692.32, 4217365.29	0.94216	3.62587	0.44879	0.25446	5.97E-03	1.02E-06	9.65E-04	1.64E-03	5.97E-03
306	UCART19	564727.3	4217365.29	564727.32, 4217365.29	0.82807	2.5042	0.40111	0.23786	5.25E-03	7.08E-07	8.63E-04	1.53E-03	5.25E-03
307	UCART20	564762.3	4217365.29	564762.32, 4217365.29	0.70991	1.83181	0.35282	0.22042	4.50E-03	5.18E-07	7.59E-04	1.42E-03	4.50E-03
308	UCART21	564797.3	4217365.29	564797.32, 4217365.29	0.60182	1.3964	0.30808	0.20275	3.81E-03	3.95E-07	6.63E-04	1.31E-03	3.81E-03
309	UCART22	564832.3	4217365.29	564832.32, 4217365.29	0.49979	1.09763	0.26916	0.18533	3.17E-03	3.10E-07	5.79E-04	1.20E-03	3.17E-03
310	UCART23	564867.3	4217365.29	564867.32, 4217365.29	0.41	0.88352	0.23658	0.16864	2.60E-03	2.50E-07	5.09E-04	1.09E-03	2.60E-03
311	UCART24	564902.3	4217365.29	564902.32, 4217365.29	0.35245	0.7319	0.21286	0.15579	2.23E-03	2.07E-07	4.58E-04	1.01E-03	2.23E-03
312	UCART25	564937.3	4217365.29	564937.32, 4217365.29	0.30566	0.61294	0.19308	0.14387	1.94E-03	1.73E-07	4.15E-04	9.28E-04	1.94E-03
313	UCART26	564972.3	4217365.29	564972.32, 4217365.29	0.27061	0.52476	0.17743	0.13392	1.71E-03	1.48E-07	3.82E-04	8.64E-04	1.71E-03
314	UCART27	565007.3	4217365.29	565007.32, 4217365.29	0.24261	0.45542	0.16432	0.12514	1.54E-03	1.29E-07	3.53E-04	8.08E-04	1.54E-03
315	UCART28	565042.3	4217365.29	565042.32, 4217365.29	0.21843	0.39854	0.15269	0.11691	1.38E-03	1.13E-07	3.28E-04	7.54E-04	1.38E-03
316	UCART29	565077.3	4217365.29	565077.32, 4217365.29	0.19608	0.35013	0.14192	0.10882	1.24E-03	9.90E-08	3.05E-04	7.02E-04	1.24E-03
317	UCART30	565112.3	4217365.29	565112.32, 4217365.29	0.1769	0.30962	0.13235	0.10143	1.12E-03	8.75E-08	2.85E-04	6.55E-04	1.12E-03
318	UCART31	565147.3	4217365.29	565147.32, 4217365.29	0.16046	0.27554	0.12379	0.09476	1.02E-03	7.79E-08	2.66E-04	6.11E-04	1.02E-03
319	UCART32	565182.3	4217365.29	565182.32, 4217365.29	0.1472	0.24745	0.11644	0.08918	9.32E-04	6.99E-08	2.50E-04	5.75E-04	9.33E-04
320	UCART33	564552.3	4217400.29	564552.32, 4217400.29	0.80333	12.6181	0.48444	0.26595	5.09E-03	3.57E-06	1.04E-03	1.72E-03	5.09E-03
321	UCART34	564587.3	4217400.29	564587.32, 4217400.29	0.81658	14.3002	0.45478	0.2543	5.17E-03	4.04E-06	9.78E-04	1.64E-03	5.18E-03
322	UCART35	564622.3	4217400.29	564622.32, 4217400.29	0.79636	6.77629	0.42342	0.24111	5.04E-03	1.92E-06	9.11E-04	1.56E-03	5.05E-03
323	UCART36	564657.3	4217400.29	564657.32, 4217400.29	0.75252	3.95595	0.39167	0.22724	4.77E-03	1.12E-06	8.42E-04	1.47E-03	4.77E-03
324	UCART37	564692.3	4217400.29	564692.32, 4217400.29	0.69855	2.61925	0.36279	0.2155	4.43E-03	7.40E-07	7.80E-04	1.39E-03	4.43E-03
325	UCART38	564727.3	4217400.29	564727.32, 4217400.29	0.63083	1.86684	0.33012	0.20263	4.00E-03	5.28E-07	7.10E-04	1.31E-03	4.00E-03
326	UCART39	564762.3	4217400.29	564762.32, 4217400.29	0.55945	1.40688	0.29773	0.19036	3.54E-03	3.98E-07	6.40E-04	1.23E-03	3.54E-03
327	UCART40	564797.3	4217400.29	564797.32, 4217400.29	0.48908	1.10004	0.26529	0.17743	3.10E-03	3.11E-07	5.71E-04	1.14E-03	3.10E-03
328	UCART41	564832.3	4217400.29	564832.32, 4217400.29	0.41818	0.88188	0.23387	0.1634	2.65E-03	2.49E-07	5.03E-04	1.05E-03	2.65E-03
329	UCART42	564867.3	4217400.29	564867.32, 4217400.29	0.34339	0.71763	0.20491	0.14857	2.18E-03	2.03E-07	4.41E-04	9.59E-04	2.18E-03
330	UCART43	564902.3	4217400.29	564902.32, 4217400.29	0.30101	0.60105	0.18549	0.13862	1.91E-03	1.70E-07	3.99E-04	8.95E-04	1.91E-03
331	UCART44	564937.3	4217400.29	564937.32, 4217400.29	0.26484	0.51169	0.16901	0.12912	1.68E-03	1.45E-07	3.64E-04	8.33E-04	1.68E-03
332	UCART45	564972.3	4217400.29	564972.32, 4217400.29	0.2363	0.44266	0.15565	0.12081	1.50E-03	1.25E-07	3.35E-04	7.80E-04	1.50E-03
333	UCART46	565007.3	4217400.29	565007.32, 4217400.29	0.21392	0.38839	0.1447	0.11363	1.36E-03	1.10E-07	3.11E-04	7.33E-04	1.36E-03
334	UCART47	565042.3	4217400.29	565042.32, 4217400.29	0.19374	0.34271	0.13475	0.10661	1.23E-03	9.69E-08	2.90E-04	6.88E-04	1.23E-03
335	UCART48	565077.3	4217400.29	565077.32, 4217400.29	0.17447	0.30297	0.12539	0.09949	1.11E-03	8.56E-08	2.70E-04	6.42E-04	1.11E-03
336	UCART49	565112.3	4217400.29	565112.32, 4217400.29	0.15779	0.26946	0.11708	0.09293	1.00E-03	7.62E-08	2.52E-04	6.00E-04	1.00E-03
337	UCART50	565147.3	4217400.29	565147.32, 4217400.29	0.14315	0.24084	0.1096	0.08688	9.07E-04	6.81E-08	2.36E-04	5.61E-04	9.07E-04
338	UCART51	565182.3	4217400.29	565182.32, 4217400.29	0.13179	0.21764	0.10336	0.08194	8.35E-04	6.15E-08	2.22E-04	5.29E-04	8.35E-04
339	UCART52	564447.3	4217435.29	564447.32, 4217435.29	0.50047	2.13733	0.41057	0.23881	3.17E-03	6.04E-07	8.83E-04	1.54E-03	3.17E-03
340	UCART53	564482.3	4217435.29	564482.32, 4217435.29	0.55146	4.58028	0.41221	0.23651	3.49E-03	1.29E-06	8.87E-04	1.53E-03	3.49E-03
341	UCART54	564517.3	4217435.29	564517.32, 4217435.29	0.58889	8.22733	0.40004	0.23008	3.73E-03	2.33E-06	8.60E-04	1.48E-03	3.73E-03
342	UCART55	564552.3	4217435.29	564552.32, 4217435.29	0.60846	20.0558	0.38012	0.22148	3.85E-03	5.67E-06	8.18E-04	1.43E-03	3.86E-03
343	UCART56	564587.3	4217435.29	564587.32, 4217435.29	0.60902	7.93904	0.35758	0.21173	3.86E-03	2.24E-06	7.69E-04	1.37E-03	3.86E-03
344	UCART57	564622.3	4217435.29	564622.32, 4217435.29	0.59275	4.22544	0.33471	0.20117	3.75E-03	1.19E-06	7.20E-04	1.30E-03	3.76E-03
345	UCART58	564657.3	4217435.29	564657.32, 4217435.29	0.56889	2.65835	0.316	0.19245	3.60E-03	7.51E-07	6.80E-04	1.24E-03	3.60E-03
346	UCART59	564692.3	4217435.29	564692.32, 4217435.29	0.53735	1.85121	0.29754	0.18431	3.40E-03	5.23E-07	6.40E-04	1.19E-03	3.40E-03
347	UCART60	564727.3	4217435.29	564727.32, 4217435.29	0.4958	1.37091	0.27541	0.17476	3.14E-03	3.87E-07	5.92E-04	1.13E-03	3.14E-03
348	UCART61	564762.3	4217435.29	564762.32, 4217435.29	0.45042	1.06595	0.25325	0.16577	2.85E-03	3.01E-07	5.45E-04	1.07E-03	2.85E-03
349	UCART62	564797.3	4217435.29	564797.32, 4217435.29	0.40289	0.85472	0.22949	0.15584	2.55E-03	2.42E-07	4.94E-04	1.01E-03	2.55E-03
350	UCART63	564832.3	4217435.29	564832.32, 4217435.29	0.35631	0.70235	0.20633	0.14571	2.26E-03	1.99E-07	4.44E-04	9.40E-04	2.26E-03
351	UCART64	564867.3	4217435.29	564867.32, 4217435.29	0.29907	0.58401	0.18246	0.13366	1.89E-03	1.65E-07	3.92E-04	8.63E-04	1.89E-03
352	UCART65	564902.3	4217435.29	564902.32, 4217435.29	0.26053	0.48902	0.16421	0.12425	1.65E-03	1.38E-07	3.53E-04	8.02E-04	1.65E-03
353	UCART66	564937.3	4217435.29	564937.32, 4217435.29	0.23177	0.42202	0.15011	0.11651	1.47E-03	1.19E-07	3.23E-04	7.52E-04	1.47E-03
354	UCART67	564972.3	4217435.29	564972.32, 4217435.29	0.20761	0.36834	0.13825	0.10931	1.32E-03	1.04E-07	2.97E-04	7.05E-04	1.32E-03
355	UCART68	565007.3	4217435.29	565007.32, 4217435.29	0.18622	0.32337	0.12771	0.10223	1.18E-03	9.14E-08	2.75E-04	6.60E-04	1.18E-03
356	UCART69	565042.3	4217435.29	565042.32, 4217435.29	0.16699	0.28508	0.11822	0.09527	1.06E-03	8.06E-08	2.54E-04	6.15E-04	1.06E-03
357	UCART70	565077.3	4217435.29	565077.32, 4217435.29	0.15253	0.25537	0.11084	0.08977	9.66E-04	7.22E-08	2.38E-04	5.79E-04	9.66E-04
358	UCART71	565112.3	4217435.29	565112.32, 4217435.29	0.13966	0.22992	0.10415	0.08456	8.85E-04	6.50E-08	2.24E-04	5.46E-04	8.85E-04
359	UCART72	565147.3	4217435.29	565147.32, 4217435.29	0.12731	0.2071	0.0978	0.07936	8.06E-04	5.85E-08	2.10E-04	5.12E-04	8.07E-04
360	UCART73	565182.3	4217435.29	565182.32, 4217435.29	0.1183	0.18904	0.0927	0.07534	7.49E-04	5.34E-08	1.99E-04	4.86E-04	7.49E-04
361	UCART74	564447.3	4217470.29	564447.32, 4217470.29	0.41955	2.5745	0.33651	0.20354	2.66E-03	7.28E-07	7.24E-04	1.31E-03	2.66E-03
362	UCART75	564482.3	4217470.29	564482.32, 4217470.29	0.44891	7.88584	0.33365	0.20071	2.84E-03	2.23E-06	7.18E-04	1.30E-03	2.85E-03
363	UCART76	564517.3	4217470.29	564517.32, 4217470.29	0.46776	12.3368	0.32185	0.19479	2.96E-03	3.49E-06	6.92E-04	1.26E-03	2.97E-03
364	UCART77	564552.3	4217470.29	564552.32, 4217470.29	0.4744	9.10649	0.30464	0.18683	3.01E-03	2.57E-06	6.55E-04	1.21E-03	3.01E-03
365	UCART78	564587.3	4217470.29	564587.32, 4217470.29	0.47207	4.29174	0.28862	0.17936	2.99E-03	1.21E-06	6.21E-04	1.16E-03	2.99E-03
366	UCART79	564622.3	4217470.29	564622.32, 4217470.29	0.46051	2.53864	0.27226	0.17122	2.92E-03	7.18E-07	5.86E-04	1.10E-03	2.92E-03
367	UCART80	564657.3	4217470.29	564657.32, 4217470.29	0.44464	1.72268	0.25859	0.16429	2.82E-03	4.87E-07	5.56E-04	1.06E-03	2.82E-03
368	UCART81	564692.3	4217470.29	564692.32, 4217470.29	0.42525	1.27256	0.24657	0.1586	2.69E-03	3.60E-07	5.30E-04	1.02E-03	2.69E-03
369	UCART82	564727.3	4217470.29	564727.32, 4217470.29	0.39938	0.98684	0.23209	0.15197	2.53E-03	2.79E-07	4.99E-04	9.81E-04	2.53E-03
370	UCART83	564762.3	4217470.29	564762.32, 4217470.29	0.36979	0.79494	0.2171	0.14553	2.34E-03	2.25E-07	4.67E-04	9.39E-04	2.34E-03
371	UCART84	564797.3	4217470.29	564797.32, 4217470.29	0.33717	0.6557	0.20006	0.13805	2.14E-03	1.85E-07	4.30E-04	8.91E-04	2.14E-03
372	UCART85	564832.3	4217470.29	564832.32, 4217470.29	0.30195	0.55065	0.18196	0.12974	1.91E-03	1.56E-07	3.91E-04	8.37E-04	1.91E-03
373	UCART86	564867.3	4217470.29	564867.32, 4217470.29	0.25731	0.46719	0.16271	0.11997	1.63E-03	1.32E-07	3.50E-04	7.74E-04	1.63E-03
374	UCART87	564902.3	4217470.29	564902.32, 4217470.29	0.22649	0.39127	0.14613	0.11137	1.43E-03	1.11E-07	3.14E-04	7.19E-04	1.43E-03
375	UCART88	564937.3	4217470.29	564937.32, 4217470.29	0.20278	0.34161	0.13371	0.10476	1.28E-03	9.66E-08	2.88E-04	6.76E-04	1.28E-03
376	UCART89	564972.3	4217470.29	564972.32, 4217470.29	0.18195	0.30076	0.12293	0.09836	1.15E-03	8.50E-08	2.64E-04	6.35E-04	1.15E-03
377	UCART90	565007.3	4217470.29	565007.32, 4217470.29	0.16118	0.26345	0.11232	0.09106	1.02E-03	7.45E-08	2.42E-04	5.88E-04	1.02E-03
378	UCART91	565042.3	4217470.29	565042.32, 4217470.29	0.14282	0.232	0.1036	0.08445	9.05E-04	6.56E-08	2.23E-04	5.45E-04	9.05E-04
379	UCART92	565077.3	4217470.29	565077.32, 4217470.29	0.13108	0.20973	0.09761	0.08	8.30E-04	5.93E-08	2.10E-04	5.16E-04	8.30E-04
380	UCART93	565112.3	4217470.29	565112.32, 4217470.29	0.1224	0.19254	0.09271	0.07637	7.75E-04	5.44E-08	1.99E-04	4.93E-04	7.75E-04
381	UCART94	565147.3	4217470.29	565147.32, 4217470.29	0.11451	0.17729	0.08823	0.07292	7.25E-04	5.01E-08	1.90E-04	4.71E-04	7.25E-04
382	UCART95	565182.3	4217470.29	565182.32, 4217470.29	0.10684	0.16318	0.08391	0.06947	6.77E-04	4.61E-08	1.80E-04	4.48E-04	6.77E-04
383	UCART96	564447.3	4217505.29	564447.32, 4217505.29	0.35322	2.60707	0.28001	0.17578	2.24E-03	7.37E-07	6.02E-04	1.13E-03	2.24E-03
384	UCART97	564482.3	4217505.29	564482.32, 4217505.29	0.36985	3.50304	0.2749	0.17251	2.34E-03	9.90E-07	5.91E-04	1.11E-03	2.34E-03
385	UCART98	564517.3	4217505.29	564517.32, 4217505.29	0.37859	8.75539	0.26362	0.16681	2.40E-03	2.47E-06	5.67E-04	1.08E-03	2.40E-03
386	UCART99	564552.3	4217505.29	564552.32, 4217505.29	0.38034	3.6248	0.25004	0.16016	2.41E-03	1.02E-06	5.38E-04	1.03E-03	2.41E-03
387	UCART100	564587.3	4217505.29	564587.32, 4217505.29	0.37804	2.13777	0.23892	0.15465	2.39E-03	6.04E-07	5.14E-04	9.98E-04	2.40E-03
388	UCART101	564622.3	4217505.29	564622.32, 4217505.29	0.3698	1.45859	0.22688	0.14828	2.34E-03	4.12E-07	4.88E-04	9.57E-04	2.34E-03
389	UCART102	564657.3	4217505.29	564657.32, 4217505.29	0.35704	1.07942	0.21415	0.14126	2.26E-03	3.05E-07	4.61E-04	9.12E-04	2.26E-03
390	UCART103	564692.3	4217505.29	564692.32, 4217505.29	0.34016	0.84823	0.20358	0.13558	2.15E-03	2.40E-07	4.38E-04	8.75E-04	2.16E-03
391	UCART104	564727.3	4217505.29	564727.32, 4217505.29	0.32437	0.69433	0.19446	0.13116	2.05E-03	1.96E-07	4.18E-04	8.46E-04	2.06E-03
392	UCART105	564762.3	4217505.29	564762.32, 4217505.29	0.30449	0.58192	0.18417	0.12639	1.93E-03	1.64E-07	3.96E-04	8.16E-04	1.93E-03
393	UCART106	564797.3	4217505.29	564797.32, 4217505.29	0.27417	0.49381	0.17099	0.11994	1.74E-03	1.40E-07	3.68E-04	7.74E-04	1.74E-03
394	UCART107	564832.3	4217505.29	564832.32, 4217505.29	0.24638	0.42633	0.15823	0.11393	1.56E-03	1.21E-07	3.40E-04	7.35E-04	1.56E-03
395	UCART108	564867.3	4217505.29	564867.32, 4217505.29	0.22044	0.3586	0.14398	0.10683	1.40E-03	1.01E-07	3.10E-04	6.89E-04	1.40E-03
396	UCART109	564902.3	4217505.29	564902.32, 4217505.29	0.19653	0.30781	0.1294	0.09908	1.24E-03	8.70E-08	2.78E-04	6.39E-04	1.25E-03
397	UCART110	564937.3	4217505.29	564937.32, 4217505.29	0.17467	0.26902	0.11717	0.09228	1.11E-03	7.60E-08	2.52E-04	5.95E-04	1.11E-03
398	UCART111	564972.3	4217505.29	564972.32, 4217505.29	0.1544	0.23702	0.10704	0.0861	9.78E-04	6.70E-08	2.30E-04	5.56E-04	9.78E-04
399	UCART112	565007.3	4217505.29	565007.32, 4217505.29	0.13713	0.21005	0.09905	0.08066	8.69E-04	5.94E-08	2.13E-04	5.21E-04	8.69E-04
400	UCART113	565042.3	4217505.29	565042.32, 4217505.29	0.12378	0.18836	0.09249	0.07584	7.84E-04	5.32E-08	1.99E-04	4.89E-04	7.84E-04
401	UCART114	565077.3	4217505.29	565077.32, 4217505.29	0.11531	0.17312	0.08768	0.07247	7.30E-04	4.89E-08	1.89E-04	4.68E-04	7.31E-04
402	UCART115	565112.3	4217505.29	565112.32, 4217505.29	0.11019	0.16278	0.08413	0.07024	6.98E-04	4.60E-08	1.81E-04	4.53E-04	6.98E-04
403	UCART116	565147.3	4217505.29	565147.32, 4217505.29	0.10383	0.15167	0.08034	0.0674	6.58E-04	4.29E-08	1.73E-04	4.35E-04	6.58E-04
404	UCART117	565182.3	4217505.29	565182.32, 4217505.29	0.09753	0.1411	0.07669	0.06449	6.18E-04	3.99E-08	1.65E-04	4.16E-04	6.18E-04

CONSTRUCTION RISK (UNMITIGATED)

405	UCART118	564342.3	4217540.29	564342.32, 4217540.29	0.24723	0.45634	0.22696	0.15292	1.57E-03	1.29E-07	4.88E-04	9.87E-04	1.57E-03
406	UCART119	564377.3	4217540.29	564377.32, 4217540.29	0.2679	0.62657	0.23683	0.15644	1.70E-03	1.77E-07	5.09E-04	1.01E-03	1.70E-03
407	UCART120	564412.3	4217540.29	564412.32, 4217540.29	0.28606	0.95306	0.2402	0.15662	1.81E-03	2.69E-07	5.17E-04	1.01E-03	1.81E-03
408	UCART121	564447.3	4217540.29	564447.32, 4217540.29	0.29953	1.73374	0.23637	0.15356	1.90E-03	4.90E-07	5.08E-04	9.91E-04	1.90E-03
409	UCART122	564482.3	4217540.29	564482.32, 4217540.29	0.30846	2.99378	0.2299	0.14985	1.95E-03	8.46E-07	4.95E-04	9.67E-04	1.95E-03
410	UCART123	564517.3	4217540.29	564517.32, 4217540.29	0.31294	2.16514	0.22099	0.14522	1.98E-03	6.12E-07	4.75E-04	9.37E-04	1.98E-03
411	UCART124	564552.3	4217540.29	564552.32, 4217540.29	0.31383	1.49538	0.21174	0.14051	1.99E-03	4.23E-07	4.55E-04	9.07E-04	1.99E-03
412	UCART125	564587.3	4217540.29	564587.32, 4217540.29	0.3108	1.11298	0.20208	0.1354	1.97E-03	3.15E-07	4.35E-04	8.74E-04	1.97E-03
413	UCART126	564622.3	4217540.29	564622.32, 4217540.29	0.30408	0.86875	0.19189	0.1297	1.93E-03	2.46E-07	4.13E-04	8.37E-04	1.93E-03
414	UCART127	564657.3	4217540.29	564657.32, 4217540.29	0.2817	0.69357	0.17826	0.12169	1.78E-03	1.96E-07	3.83E-04	7.85E-04	1.78E-03
415	UCART128	564692.3	4217540.29	564692.32, 4217540.29	0.25693	0.54956	0.16674	0.11494	1.63E-03	1.55E-07	3.59E-04	7.42E-04	1.63E-03
416	UCART129	564727.3	4217540.29	564727.32, 4217540.29	0.24728	0.47292	0.16045	0.11149	1.57E-03	1.34E-07	3.45E-04	7.19E-04	1.57E-03
417	UCART130	564762.3	4217540.29	564762.32, 4217540.29	0.23447	0.41082	0.15331	0.10782	1.49E-03	1.16E-07	3.30E-04	6.96E-04	1.49E-03
418	UCART131	564797.3	4217540.29	564797.32, 4217540.29	0.21472	0.35132	0.14277	0.10212	1.36E-03	9.93E-08	3.07E-04	6.59E-04	1.36E-03
419	UCART132	564832.3	4217540.29	564832.32, 4217540.29	0.20017	0.30973	0.13405	0.09781	1.27E-03	8.75E-08	2.88E-04	6.31E-04	1.27E-03
420	UCART133	564867.3	4217540.29	564867.32, 4217540.29	0.18647	0.2755	0.12498	0.09344	1.18E-03	7.79E-08	2.69E-04	6.03E-04	1.18E-03
421	UCART134	564902.3	4217540.29	564902.32, 4217540.29	0.16998	0.2429	0.11424	0.08776	1.08E-03	6.87E-08	2.46E-04	5.66E-04	1.08E-03
422	UCART135	564937.3	4217540.29	564937.32, 4217540.29	0.1498	0.21172	0.10349	0.08161	9.49E-04	5.98E-08	2.23E-04	5.27E-04	9.49E-04
423	UCART136	564972.3	4217540.29	564972.32, 4217540.29	0.13096	0.18671	0.0947	0.07599	8.30E-04	5.28E-08	2.04E-04	4.90E-04	8.30E-04
424	UCART137	565007.3	4217540.29	565007.32, 4217540.29	0.11835	0.16948	0.08852	0.07193	7.50E-04	4.79E-08	1.90E-04	4.64E-04	7.50E-04
425	UCART138	565042.3	4217540.29	565042.32, 4217540.29	0.11012	0.15687	0.0839	0.06902	6.98E-04	4.43E-08	1.80E-04	4.45E-04	6.98E-04
426	UCART139	565077.3	4217540.29	565077.32, 4217540.29	0.1044	0.14711	0.08016	0.06681	6.61E-04	4.16E-08	1.72E-04	4.31E-04	6.61E-04
427	UCART140	565112.3	4217540.29	565112.32, 4217540.29	0.1001	0.13936	0.077	0.06495	6.34E-04	3.94E-08	1.66E-04	4.19E-04	6.34E-04
428	UCART141	565147.3	4217540.29	565147.32, 4217540.29	0.09407	0.12991	0.07348	0.06225	5.96E-04	3.67E-08	1.58E-04	4.02E-04	5.96E-04
429	UCART142	565182.3	4217540.29	565182.32, 4217540.29	0.08913	0.12213	0.07044	0.05992	5.65E-04	3.45E-08	1.52E-04	3.87E-04	5.65E-04
430	UCART143	564342.3	4217575.29	564342.32, 4217575.29	0.22189	0.41274	0.20096	0.13768	1.41E-03	1.17E-07	4.32E-04	8.88E-04	1.41E-03
431	UCART144	564377.3	4217575.29	564377.32, 4217575.29	0.23633	0.53803	0.20672	0.13964	1.50E-03	1.52E-07	4.45E-04	9.01E-04	1.50E-03
432	UCART145	564412.3	4217575.29	564412.32, 4217575.29	0.24827	0.73146	0.20716	0.13883	1.57E-03	2.07E-07	4.46E-04	8.96E-04	1.57E-03
433	UCART146	564447.3	4217575.29	564447.32, 4217575.29	0.25614	0.99332	0.20191	0.13535	1.62E-03	2.81E-07	4.34E-04	8.73E-04	1.62E-03
434	UCART147	564482.3	4217575.29	564482.32, 4217575.29	0.26092	1.15035	0.19556	0.13176	1.65E-03	3.25E-07	4.21E-04	8.50E-04	1.65E-03
435	UCART148	564517.3	4217575.29	564517.32, 4217575.29	0.26354	1.05236	0.18887	0.12818	1.67E-03	2.97E-07	4.06E-04	8.27E-04	1.67E-03
436	UCART149	564552.3	4217575.29	564552.32, 4217575.29	0.26323	0.8729	0.18102	0.12397	1.67E-03	2.47E-07	3.89E-04	8.00E-04	1.67E-03
437	UCART150	564587.3	4217575.29	564587.32, 4217575.29	0.26004	0.7162	0.17242	0.11917	1.65E-03	2.02E-07	3.71E-04	7.69E-04	1.65E-03
438	UCART151	564622.3	4217575.29	564622.32, 4217575.29	0.25228	0.59444	0.1629	0.11356	1.60E-03	1.68E-07	3.50E-04	7.33E-04	1.60E-03
439	UCART152	564657.3	4217575.29	564657.32, 4217575.29	0.22881	0.49949	0.15207	0.10693	1.45E-03	1.41E-07	3.27E-04	6.90E-04	1.45E-03
440	UCART153	564692.3	4217575.29	564692.32, 4217575.29	0.20939	0.39552	0.14156	0.10055	1.33E-03	1.12E-07	3.05E-04	6.49E-04	1.33E-03
441	UCART154	564727.3	4217575.29	564727.32, 4217575.29	0.20401	0.35156	0.13705	0.09785	1.29E-03	9.94E-08	2.95E-04	6.31E-04	1.29E-03
442	UCART155	564762.3	4217575.29	564762.32, 4217575.29	0.1956	0.31338	0.13186	0.09495	1.24E-03	8.86E-08	2.84E-04	6.13E-04	1.24E-03
443	UCART156	564797.3	4217575.29	564797.32, 4217575.29	0.18087	0.27331	0.12367	0.0902	1.15E-03	7.73E-08	2.66E-04	5.82E-04	1.15E-03
444	UCART157	564832.3	4217575.29	564832.32, 4217575.29	0.16966	0.24448	0.11684	0.08649	1.07E-03	6.91E-08	2.51E-04	5.58E-04	1.07E-03
445	UCART158	564867.3	4217575.29	564867.32, 4217575.29	0.15795	0.21791	0.10903	0.08232	1.00E-03	6.16E-08	2.35E-04	5.31E-04	1.00E-03
446	UCART159	564902.3	4217575.29	564902.32, 4217575.29	0.14456	0.19311	0.10056	0.07776	9.16E-04	5.46E-08	2.16E-04	5.02E-04	9.16E-04
447	UCART160	564937.3	4217575.29	564937.32, 4217575.29	0.12927	0.17133	0.09213	0.07283	8.19E-04	4.84E-08	1.98E-04	4.70E-04	8.19E-04
448	UCART161	564972.3	4217575.29	564972.32, 4217575.29	0.11443	0.15337	0.08477	0.06811	7.25E-04	4.34E-08	1.82E-04	4.40E-04	7.25E-04
449	UCART162	565007.3	4217575.29	565007.32, 4217575.29	0.10594	0.14262	0.08035	0.06549	6.71E-04	4.03E-08	1.73E-04	4.23E-04	6.71E-04
450	UCART163	565042.3	4217575.29	565042.32, 4217575.29	0.10069	0.1352	0.07716	0.06385	6.38E-04	3.82E-08	1.66E-04	4.12E-04	6.38E-04
451	UCART164	565077.3	4217575.29	565077.32, 4217575.29	0.09555	0.12766	0.0739	0.06199	6.05E-04	3.61E-08	1.59E-04	4.00E-04	6.05E-04
452	UCART165	565112.3	4217575.29	565112.32, 4217575.29	0.09011	0.11969	0.07056	0.05969	5.71E-04	3.38E-08	1.52E-04	3.85E-04	5.71E-04
453	UCART166	565147.3	4217575.29	565147.32, 4217575.29	0.0852	0.11237	0.0675	0.05744	5.40E-04	3.18E-08	1.45E-04	3.71E-04	5.40E-04
454	UCART167	565182.3	4217575.29	565182.32, 4217575.29	0.08137	0.1066	0.06489	0.05559	5.15E-04	3.01E-08	1.40E-04	3.59E-04	5.15E-04

Worker Risk (Unmitigated)

Construction

	On-Site	Off-Site	Tugboat (Idle)	Tugboat
Emissions Rate (g/s):	6.33E-03	2.83E-07	2.15E-03	6.45E-03

	Discrete Receptor ID	X	Y	X, Y	Concentration [µg/m^3] at 1 g/s On-Site	Off-Site	Tugboat (Idle)	Tugboat	Construction On-Site	Off-Site	Tugboat (Idle)	Tugboat	Total
1	UCART1	563957.32	4216840.29	563957.32, 4216840.29	0.0895	0.08217	0.08542	0.0756	5.67E-04	2.32E-08	1.84E-04	4.88E-04	1.24E-03
2	UCART1	563992.32	4216840.29	563992.32, 4216840.29	0.0997	0.08892	0.09606	0.08536	6.32E-04	2.41E-08	2.07E-04	5.51E-04	1.39E-03
3	UCART1	564027.32	4216840.29	564027.32, 4216840.29	0.10895	0.09616	0.1069	0.09521	6.90E-04	2.69E-08	2.30E-04	6.14E-04	1.53E-03
4	UCART1	564062.32	4216840.29	564062.32, 4216840.29	0.11917	0.10371	0.11801	0.10484	7.55E-04	2.96E-08	2.54E-04	6.77E-04	1.69E-03
5	UCART1	564097.32	4216840.29	564097.32, 4216840.29	0.13112	0.11201	0.13116	0.11623	8.31E-04	3.29E-08	2.82E-04	7.50E-04	1.86E-03
6	UCART1	564132.32	4216840.29	564132.32, 4216840.29	0.14536	0.12123	0.1472	0.13023	9.21E-04	3.68E-08	3.17E-04	8.40E-04	2.08E-03
7	UCART1	564167.32	4216840.29	564167.32, 4216840.29	0.16281	0.13136	0.16739	0.14828	1.03E-03	4.19E-08	3.60E-04	9.57E-04	2.35E-03
8	UCART1	564202.32	4216840.29	564202.32, 4216840.29	0.18393	0.14248	0.19203	0.17051	1.17E-03	4.82E-08	4.13E-04	1.10E-03	2.68E-03
9	UCART1	564237.32	4216840.29	564237.32, 4216840.29	0.20987	0.15468	0.22484	0.20118	1.33E-03	5.69E-08	4.84E-04	1.30E-03	3.11E-03
10	UCART1	564272.32	4216840.29	564272.32, 4216840.29	0.23979	0.16754	0.25702	0.23013	1.52E-03	6.50E-08	5.53E-04	1.49E-03	3.56E-03
11	UCART1	564307.32	4216840.29	564307.32, 4216840.29	0.27604	0.18228	0.29628	0.26787	1.75E-03	7.57E-08	6.37E-04	1.73E-03	4.11E-03
12	UCART1	563957.32	4216875.29	563957.32, 4216875.29	0.09169	0.08386	0.08615	0.07644	5.81E-04	2.16E-08	1.85E-04	4.93E-04	1.26E-03
13	UCART1	563992.32	4216875.29	563992.32, 4216875.29	0.10199	0.09095	0.09726	0.0863	6.46E-04	2.44E-08	2.09E-04	5.57E-04	1.41E-03
14	UCART1	564027.32	4216875.29	564027.32, 4216875.29	0.11159	0.09856	0.10837	0.09602	7.07E-04	2.71E-08	2.33E-04	6.20E-04	1.56E-03
15	UCART1	564062.32	4216875.29	564062.32, 4216875.29	0.12233	0.10668	0.12	0.10588	7.75E-04	2.99E-08	2.58E-04	6.83E-04	1.72E-03
16	UCART1	564097.32	4216875.29	564097.32, 4216875.29	0.13493	0.11571	0.13387	0.11766	8.55E-04	3.33E-08	2.88E-04	7.59E-04	1.90E-03
17	UCART1	564132.32	4216875.29	564132.32, 4216875.29	0.15069	0.12574	0.15257	0.13444	9.55E-04	3.80E-08	3.28E-04	8.68E-04	2.15E-03
18	UCART1	564167.32	4216875.29	564167.32, 4216875.29	0.16925	0.13658	0.17651	0.15605	1.07E-03	4.41E-08	3.80E-04	1.01E-03	2.46E-03
19	UCART1	564202.32	4216875.29	564202.32, 4216875.29	0.19059	0.14823	0.19991	0.17594	1.21E-03	4.97E-08	4.30E-04	1.14E-03	2.77E-03
20	UCART1	564237.32	4216875.29	564237.32, 4216875.29	0.2172	0.16151	0.23044	0.20198	1.38E-03	5.71E-08	4.96E-04	1.30E-03	3.18E-03
21	UCART1	564272.32	4216875.29	564272.32, 4216875.29	0.25207	0.17773	0.27292	0.23911	1.60E-03	6.76E-08	5.87E-04	1.54E-03	3.73E-03
22	UCART1	564307.32	4216875.29	564307.32, 4216875.29	0.29473	0.19592	0.32429	0.28477	1.87E-03	8.05E-08	6.98E-04	1.84E-03	4.40E-03
23	UCART1	563957.32	4216910.29	563957.32, 4216910.29	0.09362	0.08543	0.08644	0.07716	5.93E-04	2.18E-08	1.86E-04	4.98E-04	1.28E-03
24	UCART1	563992.32	4216910.29	563992.32, 4216910.29	0.10396	0.09267	0.09715	0.08626	6.59E-04	2.44E-08	2.09E-04	5.57E-04	1.42E-03
25	UCART1	564027.32	4216910.29	564027.32, 4216910.29	0.11388	0.10062	0.10842	0.09576	7.21E-04	2.71E-08	2.33E-04	6.18E-04	1.57E-03
26	UCART1	564062.32	4216910.29	564062.32, 4216910.29	0.12525	0.1094	0.12091	0.10616	7.93E-04	3.00E-08	2.60E-04	6.85E-04	1.74E-03
27	UCART1	564097.32	4216910.29	564097.32, 4216910.29	0.13887	0.11931	0.1365	0.11935	8.80E-04	3.37E-08	2.94E-04	7.70E-04	1.94E-03
28	UCART1	564132.32	4216910.29	564132.32, 4216910.29	0.15577	0.13005	0.15986	0.14018	9.87E-04	3.96E-08	3.44E-04	9.05E-04	2.24E-03
29	UCART1	564167.32	4216910.29	564167.32, 4216910.29	0.17422	0.14152	0.17943	0.15646	1.10E-03	4.42E-08	3.86E-04	1.01E-03	2.50E-03
30	UCART1	564202.32	4216910.29	564202.32, 4216910.29	0.19823	0.15557	0.20814	0.18061	1.26E-03	5.10E-08	4.48E-04	1.17E-03	2.87E-03
31	UCART1	564237.32	4216910.29	564237.32, 4216910.29	0.22749	0.1713	0.2419	0.20824	1.44E-03	5.89E-08	5.20E-04	1.34E-03	3.31E-03
32	UCART1	564272.32	4216910.29	564272.32, 4216910.29	0.26262	0.18871	0.28108	0.23931	1.66E-03	6.76E-08	6.05E-04	1.54E-03	3.81E-03
33	UCART2	564307.32	4216910.29	564307.32, 4216910.29	0.30932	0.20851	0.33811	0.2869	1.96E-03	8.11E-08	7.27E-04	1.85E-03	4.54E-03
34	UCART3	564902.32	4216910.29	564902.32, 4216910.29	1.67143	10.05974	1.52531	2.47675	1.06E-02	7.00E-07	3.28E-03	1.60E-02	2.99E-02
35	UCART4	564937.32	4216910.29	564937.32, 4216910.29	1.58772	5.29103	1.35974	1.95983	1.01E-02	5.54E-07	2.92E-03	1.26E-02	2.56E-02
36	UCART5	564972.32	4216910.29	564972.32, 4216910.29	1.45994	3.3241	1.19221	1.57345	9.25E-03	4.45E-07	2.56E-03	1.02E-02	2.20E-02
37	UCART6	565007.32	4216910.29	565007.32, 4216910.29	1.31691	2.31243	1.02826	1.2694	8.34E-03	3.59E-07	2.21E-03	8.19E-03	1.87E-02
38	UCART7	565042.32	4216910.29	565042.32, 4216910.29	1.1814	1.76529	0.8837	1.03852	7.48E-03	2.94E-07	1.90E-03	6.70E-03	1.61E-02
39	UCART8	565077.32	4216910.29	565077.32, 4216910.29	1.0448	1.41634	0.77418	0.87884	6.62E-03	2.48E-07	1.67E-03	5.67E-03	1.40E-02
40	UCART9	565112.32	4216910.29	565112.32, 4216910.29	0.91724	1.1718	0.68346	0.75574	5.81E-03	2.14E-07	1.47E-03	4.88E-03	1.22E-02
41	UCART10	565147.32	4216910.29	565147.32, 4216910.29	0.80132	0.96761	0.60707	0.6575	5.08E-03	1.86E-07	1.31E-03	4.24E-03	1.06E-02
42	UCART11	565182.32	4216910.29	565182.32, 4216910.29	0.70203	0.82603	0.53881	0.57355	4.45E-03	1.62E-07	1.16E-03	3.70E-03	9.31E-03
43	UCART12	563957.32	4216945.29	563957.32, 4216945.29	0.09525	0.08692	0.08653	0.07784	6.03E-04	2.20E-08	1.86E-04	5.02E-04	1.29E-03
44	UCART13	563992.32	4216945.29	563992.32, 4216945.29	0.10567	0.09422	0.09632	0.08592	6.69E-04	2.43E-08	2.07E-04	5.54E-04	1.43E-03
45	UCART14	564027.32	4216945.29	564027.32, 4216945.29	0.11591	0.10247	0.10749	0.0951	7.34E-04	2.69E-08	2.31E-04	6.14E-04	1.58E-03
46	UCART15	564062.32	4216945.29	564062.32, 4216945.29	0.12799	0.11196	0.12113	0.10631	8.11E-04	3.00E-08	2.61E-04	6.86E-04	1.76E-03
47	UCART16	564097.32	4216945.29	564097.32, 4216945.29	0.14315	0.12273	0.1408	0.12289	9.07E-04	3.47E-08	3.03E-04	7.93E-04	2.00E-03
48	UCART17	564132.32	4216945.29	564132.32, 4216945.29	0.16028	0.13442	0.16294	0.14149	1.02E-03	4.00E-08	3.50E-04	9.13E-04	2.28E-03
49	UCART18	564167.32	4216945.29	564167.32, 4216945.29	0.18044	0.1479	0.18321	0.15753	1.14E-03	4.45E-08	3.94E-04	1.02E-03	2.55E-03
50	UCART19	564202.32	4216945.29	564202.32, 4216945.29	0.20446	0.16299	0.20842	0.17736	1.30E-03	5.01E-08	4.48E-04	1.14E-03	2.89E-03
51	UCART20	564237.32	4216945.29	564237.32, 4216945.29	0.23502	0.18003	0.24387	0.20558	1.49E-03	5.81E-08	5.25E-04	1.33E-03	3.34E-03
52	UCART21	564272.32	4216945.29	564272.32, 4216945.29	0.27443	0.19944	0.29151	0.24372	1.74E-03	6.89E-08	6.27E-04	1.57E-03	3.94E-03
53	UCART22	564307.32	4216945.29	564307.32, 4216945.29	0.3272	0.22169	0.36092	0.30038	2.07E-03	8.49E-08	7.76E-04	1.94E-03	4.79E-03
54	UCART23	564902.32	4216945.29	564902.32, 4216945.29	2.13464	8.25778	1.72141	2.11377	1.35E-02	5.97E-07	3.70E-03	1.36E-02	3.09E-02
55	UCART24	564937.32	4216945.29	564937.32, 4216945.29	1.91391	4.5504	1.47013	1.68336	1.21E-02	4.76E-07	3.16E-03	1.09E-02	2.62E-02
56	UCART25	564972.32	4216945.29	564972.32, 4216945.29	1.68082	2.95518	1.23565	1.34589	1.06E-02	3.80E-07	2.66E-03	8.69E-03	2.20E-02
57	UCART26	565007.32	4216945.29	565007.32, 4216945.29	1.46363	2.16224	1.04203	1.09729	9.27E-03	3.10E-07	2.24E-03	7.08E-03	1.86E-02
58	UCART27	565042.32	4216945.29	565042.32, 4216945.29	1.26024	1.681	0.89295	0.91909	7.98E-03	2.60E-07	1.92E-03	5.93E-03	1.58E-02
59	UCART28	565077.32	4216945.29	565077.32, 4216945.29	1.08285	1.36214	0.77535	0.78485	6.86E-03	2.22E-07	1.67E-03	5.06E-03	1.36E-02
60	UCART29	565112.32	4216945.29	565112.32, 4216945.29	0.9311	1.13146	0.67902	0.67832	5.90E-03	1.92E-07	1.46E-03	4.38E-03	1.17E-02
61	UCART30	565147.32	4216945.29	565147.32, 4216945.29	0.80389	0.95607	0.59835	0.59118	5.09E-03	1.67E-07	1.29E-03	3.81E-03	1.02E-02
62	UCART31	565182.32	4216945.29	565182.32, 4216945.29	0.69842	0.81772	0.53103	0.5197	4.42E-03	1.47E-07	1.14E-03	3.35E-03	8.92E-03
63	UCART32	563957.32	4216980.29	563957.32, 4216980.29	0.09711	0.08834	0.08672	0.07855	6.15E-04	2.22E-08	1.87E-04	5.07E-04	1.31E-03
64	UCART33	563992.32	4216980.29	563992.32, 4216980.29	0.1066	0.09577	0.0958	0.08601	6.75E-04	2.43E-08	2.06E-04	5.55E-04	1.44E-03
65	UCART34	564027.32	4216980.29	564027.32, 4216980.29	0.11783	0.10434	0.10683	0.095	7.46E-04	2.69E-08	2.30E-04	6.13E-04	1.59E-03
66	UCART35	564062.32	4216980.29	564062.32, 4216980.29	0.13054	0.11445	0.12118	0.10661	8.27E-04	3.01E-08	2.61E-04	6.88E-04	1.78E-03
67	UCART36	564097.32	4216980.29	564097.32, 4216980.29	0.14669	0.12599	0.14378	0.12494	9.29E-04	3.53E-08	3.09E-04	8.06E-04	2.04E-03
68	UCART37	564132.32	4216980.29	564132.32, 4216980.29	0.16404	0.13821	0.16372	0.14102	1.04E-03	3.99E-08	3.52E-04	9.10E-04	2.30E-03
69	UCART38	564167.32	4216980.29	564167.32, 4216980.29	0.18589	0.15303	0.18884	0.16107	1.18E-03	4.55E-08	4.06E-04	1.04E-03	2.62E-03
70	UCART39	564202.32	4216980.29	564202.32, 4216980.29	0.21198	0.16995	0.21462	0.18092	1.34E-03	5.11E-08	4.62E-04	1.17E-03	2.97E-03
71	UCART40	564237.32	4216980.29	564237.32, 4216980.29	0.244	0.18889	0.24959	0.2077	1.55E-03	5.87E-08	5.37E-04	1.34E-03	3.42E-03
72	UCART41	564272.32	4216980.29	564272.32, 4216980.29	0.28762	0.21055	0.30479	0.25093	1.82E-03	7.09E-08	6.56E-04	1.62E-03	4.10E-03
73	UCART42	564307.32	4216980.29	564307.32, 4216980.29	0.34382	0.23556	0.37994	0.30964	2.18E-03	8.75E-08	8.17E-04	2.00E-03	4.99E-03
74	UCART43	564762.32	4216980.29	564762.32, 4216980.29	3.26062	5.77139	3.38465	5.20788	2.07E-02	1.47E-06	7.28E-03	3.36E-02	6.15E-02
75	UCART44	564797.32	4216980.29	564797.32, 4216980.29	3.41611	13.07863	3.07433	3.79011	2.16E-02	1.07E-06	6.61E-03	2.45E-02	5.27E-02
76	UCART45	564832.32	4216980.29	564832.32, 4216980.29	3.30634	20.95611	2.65061	2.85786	2.09E-02	8.08E-07	5.70E-03	1.84E-02	4.51E-02
77	UCART46	564867.32	4216980.29	564867.32, 4216980.29	2.99431	9.92086	2.21806	2.20765	1.90E-02	6.24E-07	4.77E-03	1.42E-02	3.80E-02
78	UCART47	564902.32	4216980.29	564902.32, 4216980.29	2.59109	5.39776	1.83472	1.74219	1.64E-02	4.92E-07	3.95E-03	1.12E-02	3.16E-02
79	UCART48	564937.32	4216980.29	564937.32, 4216980.29	2.18649	3.43854	1.50071	1.38417	1.39E-02	3.91E-07	3.23E-03	8.93E-03	2.60E-02
80	UCART49	564972.32	4216980.29	564972.32, 4216980.29	1.83881	2.46233	1.23354	1.11963	1.16E-02	3.16E-07	2.65E-03	7.23E-03	2.15E-02
81	UCART50	565007.32	4216980.29	565007.32, 4216980.29	1.53577	1.89601	1.03838	0.9349	9.73E-03	2.64E-07	2.23E-03	6.03E-03	1.80E-02
82	UCART51	565042.32	4216980.29	565042.32, 4216980.29	1.28667	1.51935	0.88582	0.7936	8.15E-03	2.24E-07	1.91E-03	5.12E-03	1.52E-02
83	UCART52	565077.32	4216980.29	565077.32, 4216980.29	1.0852	1.24961	0.76384	0.68192	6.87E-03	1.93E-07	1.64E-03	4.40E-03	1.29E-02
84	UCART53	565112.32	4216980.29	565112.32, 4216980.29	0.92388	1.04894	0.66666	0.59348	5.85E-03	1.68E-07	1.43E-03	3.83E-03	1.11E-02
85	UCART54	565147.32	4216980.29	565147.32, 4216980.29	0.79406	0.89282	0.58624	0.5206	5.03E-03	1.47E-07	1.26E-03	3.36E-03	9.65E-03
86	UCART55	565182.32	4216980.29	565182.32, 4216980.29	0.68918	0.76899	0.51967	0.46044	4.37E-03	1.30E-07	1.12E-03	2.97E-03	8.46E-03
87	UCART56	563957.32	4217015.29	563957.32, 4217015.29	0.09874	0.08966	0.08713	0.07919	6.26E-04	2.24E-08	1.87E-04	5.11E-04	1.32E-03
88	UCART57	563992.32	4217015.29	563992.32, 4217015.29	0.10877	0.0974	0.09639	0.08682	6.89E-04	2.45E-08	2.07E-04	5.60E-04	1.46E-03
89	UCART58	564027.32	4217015.29	564027.32, 4217015.29	0.11968	0.1063	0.10728	0.09569	7.58E-04	2.70E-08	2.31E-04	6.17E-04	1.61E-03
90	UCART59	564062.32	4217015.29	564062.32, 4217015.29	0.13267	0.11672	0.12095	0.10665	8.40E-04	3.01E-08	2.60E-04	6.88E-04	1.79E-03
91	UCART60	564097.32	4217015.29	564097.32, 4217015.29	0.14859	0.12916	0.13923	0.12108	9.41E-04	3.42E-08	2.99E-04	7.81E-04	2.02E-03
92	UCART61	564132.32	4217015.29	564132.32, 4217015.29	0.16828	0.14272	0.1671	0.14286	1.07E-03	4.04E-08	3.59E-04	9.22E-04	2.35E-03
93	UCART62	564167.32	4217015.29	564167.32, 4217015.29	0.19028	0.15791	0.18993	0.16052	1.21E-03	4.54E-08	4.09E-04	1.04E-03	2.65E-03
94	UCART63	564202.32	4217015.29	564202.32, 4217015.29	0.21839	0.17614	0.22156	0.18485	1.38E-03	5.22E-08	4.77E-04	1.19E-03	3.05E-03
95	UCART64	564237.32	4217015.29	564237.32, 4217015.29	0.25406	0.19781	0.26028	0.21405	1.61E-03	6.05E-08	5.60E-04	1.38E-03	3.55E-03
96	UCART65	564272.32	4217015.29	564272.32, 4217015.29	0.29992	0.222	0.31869	0.25801	1.90E-03	7.29E-08	6.86E-04	1.66E-03	4.25E-03
97	UCART66	564307.32	4217015.29	564307.32, 4217015.29	0.35974	0.25022	0.39249	0.31286	2.28E-03	8.84E-08	8.44E-04	2.02E-03	5.14E-03
98	UCART67	564762.32	4217015.29	564762.32, 4217015.29	5.39395	10.38917	4.42428	3.99221	3.42E-02	1.13E-06	9.52E-03	2.58E-02	6.94E-02
99	UCART68	564797.32	4217015.29	564797.32, 4217015.29	5.12519	16.29762	3.63303	2.96259	3.25E-02	8.37E-07	7.81E-03	1.91E-02	5.94E-02
100	UCART69	564832.32	4217015.29	564832.32, 4217015.29	4.43717	11.07111	2.90149	2.25631	2.81E-02	6.38E-07	6.24E-03	1.46E-02	4.89E-02
101	UCART70	564867.32	4217015.29	564867.32, 4217015.29	3.63334	6.17248	2.3027	1.75489	2.30E-02	4.96E-07	4.95E-03	1.13E-02	3.93E-02
102	UCART71	564902.32	4217015.29	564902.32, 4217015.29	2.90747	3.98598	1.83981	1.39466	1.84E-02	3.94E-07	3.96E-03	9.00E-03	3.14E-02
103	UCART72	564937.32	4217015.29	564937.32, 4217015.29	2.3489	2.78674	1.4708	1.11668	1.49E-02	3.16E-07	3.16E-03	7.21E-03	2.53E-02
104	UCART73	564972.32	4217015.29	564972.32, 4217015.29	1.89161	2.1097	1.21178	0.92591	1.20E-02	2.62E-07	2.61E-03	5.97E-03	2.06E-02
105	UCART74	565007.32	4217015.29	565007.32, 4217015.29	1.54275	1.67176	1.01798	0.78353	9.77E-03	2.21E-07	2.19E-03	5.06E-03	1.70E-02
106	UCART75	565042.32	4217015.29	565042.32, 4217015.29	1.27474	1.3614	0.86583	0.67119	8.08E-03	1.90E-07	1.86E-03	4.33E-03	1.43E-02
107	UCART76	565077.32	4217015.29	565077.32, 4217015.29	1.06813	1.13215	0.74496	0.58139	6.77E-03	1.64E-07	1.60E-03	3.75E-03	1.21E-02
108	UCART77	565112.32	4217015.29	565112.32, 4217015.29	0.90768	0.95797	0.64882	0.50954	5.75E-03	1.44E-07	1.40E-03	3.29E-03	1.04E-02
109	UCART78	565147.32	4217015.29	565147.32, 4217015.29	0.78051	0.82059	0.56984	0.45013	4.94E-03	1.27E-07	1.23E-03	2.90E-03	9.08E-03
110	UCART79	565182.32	4217015.29	565182.32, 4217015.29	0.67825	0.71011	0.50408	0.40038	4.30E-03	1.13E-07	1.08E-03	2.58E-03	7.96E-03
111	UCART80	563957.32	4217050.29	563957.32, 4217050.29	0.09942	0.09082	0.08755	0.07951	6.30E-04	2.25E-08	1.88E-04	5.13E-04	1.33E-03
112	UCART81	563992.32	4217050.29	563992.32, 4217050.29	0.10989	0.09883	0.09691	0.08719	6.96E-04	2.46E-08	2.08E-04	5.63E-04	1.47E-03
113	UCART82	564027.32	4217050.29	564027.32, 4217050.29	0.12114	0.1081	0.10805	0.0962	7.67E-04	2.72E-08	2.32E-04	6.21E-04	1.62E-03
114	UCART83	564062.32	4217050.29	564062.32, 4217050.29	0.13445	0.11892	0.12147	0.10691	8.52E-04	3.02E-08	2.61E-04	6.90E-04	1.80E-03
115	UCART84	564097.32	4217050.29	564097.32, 4217050.29	0.15066	0.1319	0.13902	0.12059	9.54E-04	3.41E-08	2.99E-04	7.78E-04	2.03E-03
116	UCART85	564132.32	4217050.29	564132.32, 4217050.29	0.17067	0.14664	0.16212	0.13824	1.08E-03	3.91E-08	3.49E-04	8.92E-04	2.32E-03
117	UCART86	564167.32	4217050.29	564167.32, 4217050.29	0.19495	0.16365	0.192	0.16073	1.23E-03	4.54E-08	4.13E-04	1.04E-03	2.69E-03
118	UCART87	564202.32	4217050.29	564202.32, 4217050.29	0.22388	0.18293	0.22434	0.18505	1.42E-03	5.23E-08	4.83E-04	1.19E-03	3.10E-03
119	UCART88	564237.32	4217050.29	564237.32, 4217050.29	0.2615	0.20633	0.2671	0.21674	1.66E-03	6.13E-08	5.75E-04	1.40E-03	3.63E-03
120	UCART89	564762.32	4217050.29	564762.32, 4217050.29	8.8113	15.6857	5.08101	2.97439	5.58E-02	8.41E-07	1.09E-02	1.92E-02	8.59E-02
121	UCART90	564797.32	4217050.29	564797.32, 4217050.29	7.10025	13.59277	3.83931	2.25003	4.50E-02	6.36E-07	8.26E-03	1.45E-02	6.78E-02
122	UCART91	564832.32	4217050.29	564832.32, 4217050.29	5.39439	7.45451	2.9301	1.74469	3.42E-02	4.93E-07	6.30E-03	1.13E-02	5.17E-02
123	UCART92	564867.32	4217050.29	564867.32, 4217050.29	4.00273	4.68753	2.25737	1.36883	2.54E-02	3.87E-07	4.86E-03	8.83E-03	3.90E-02
124	UCART93	564902.32	4217050.29	564902.32, 4217050.29	3.06013	3.2057	1.76421	1.09145	1.94E-02	3.09E-07	3.79E-03	7.04E-03	3.02E-02
125	UCART94	564937.32	4217050.29	564937.32, 4217050.29	2.35964	2.37636	1.41675	0.8951	1.49E-02	2.53E-07	3.05E-03	5.78E-03	2.38E-02
126	UCART95	564972.32	4217050.29	564972.32, 4217050.29	1.86917	1.85435	1.17073	0.75508	1.18E-02	2.13E-07	2.52E-03	4.87E-03	1.92E-02
127	UCART96	565007.32	4217050.29	565007.32, 4217050.29	1.51181	1.49156	0.98243	0.64603	9.58E-03	1.83E-07	2.11E-03	4.17E-03	1.59E-02
128	UCART97	565042.32	4217050.29	565042.32, 4217050.29	1.24559	1.22716	0.83492	0.55909	7.89E-03	1.58E-07	1.80E-03	3.61E-03	1.33E-02
129	UCART98	565077.32	4217050.29	565077.32, 4217050.29	1.04221	1.02669	0.71647	0.488	6.60E-03	1.38E-07	1.54E-03	3.15E-03	1.13E-02
130	UCART99	565112.32	4217050.29	565112.32, 4217050.29	0.88517	0.87245	0.622	0.43046	5.61E-03	1.22E-07	1.34E-03	2.78E-03	9.72E-03
131	UCART10	565147.32	4217050.29	565147.32, 4217050.29	0.76131	0.7505	0.54535	0.38308	4.82E-03	1.08E-07	1.17E-03	2.47E-03	8.47E-03
132	UCART10	565182.32	4217050.29	565182.32, 4217050.29	0.6617	0.65201	0.48212	0.34341	4.19E-03	9.71E-08	1.04E-03	2.22E-03	7.44E-03
133	UCART10	563957.32	4217085.29	563957.32, 4217085.29	0.09965	0.09186	0.08823	0.07964	6.31E-04	2.25E-08	1.90E-04	5.14E-04	1.34E-03
134	UCART10	563992.32	4217085.29	563992.32, 4217085.29	0.11064	0.1001	0.09768	0.08729	7.01E-04	2.47E-08	2.10E-04	5.63E-04	1.47E-03
135	UCART10	564027.32	4217085.29	564027.32, 4217085.29	0.12214	0.10973	0.10907	0.09639	7.74E-04	2.72E-08	2.35E-04	6.22E-04	1.63E-03
136	UCART10	564062.32	4217085.29	564062.32, 4217085.29	0.13611	0.12136	0.12408	0.10803	8.62E-04	3.05E-08	2.67E-04	6.97E-04	1.83E-03
137	UCART10	564097.32	4217085.29	564097.32, 4217085.29	0.15297	0.13466	0.14268	0.12221	9.69E-04	3.45E-08	3.07E-04	7.89E-04	2.06E-03
138	UCART10	564132.32	4217085.29	564132.32, 4217085.29	0.1735	0.15005	0.16772	0.14083	1.10E-03	3.98E-08	3.61E-04	9.09E-04	2.37E-03
139	UCART10	564167.32	4217085.29	564167.32, 4217085.29	0.19801	0.16831	0.19546	0.16165	1.25E-03	4.57E-08	4.20E-04	1.04E-03	2.72E-03
140	UCART10	564202.32	4217085.29	564202.32, 4217085.29	0.22859	0.19	0.22811	0.18555	1.45E-03	5.24E-08	4.91E-04	1.20E-03	3.14E-03
141	UCART11	564237.32	4217085.29	564237.32, 4217085.29	0.26752	0.21549	0.27114	0.21684	1.69E-03	6.13E-08	5.83E-04	1.40E-03	3.68E-03
142	UCART11	564657.32	4217085.29	564657.32, 4217085.29	17.75035	2.68551	14.25714	5.96269	1.12E-01	1.69E-06	3.07E-02	3.85E-02	1.82E-01
143	UCART11	564692.32	4217085.29	564692.32, 4217085.29	20.78858	4.79247	10.27713	3.93813	1.32E-01	1.11E-06	2.21E-02	2.54E-02	1.79E-01
144	UCART11	564727.32	4217085.29	564727.32, 4217085.29	17.79886	10.25126	7.10723	2.83662	1.13E-01	8.02E-07	1.53E-02	1.83E-02	1.46E-01
145	UCART11	564762.32	4217085.29	564762.32, 4217085.29	12.57399	22.29742	5.03737	2.14004	7.97E-02	6.05E-07	1.08E-02	1.38E-02	1.04E-01
146	UCART11	564797.32	4217085.29	564797.32, 4217085.29	8.44588	10.02873	3.68045	1.65775	5.35E-02	4.69E-07	7.92E-03	1.07E-02	7.21E-02
147	UCART11	564832.32	4217085.29	564832.32, 4217085.29	5.73122	5.83445	2.75532	1.30395	3.63E-02	3.69E-07	5.93E-03	8.41E-03	5.06E-02
148	UCART11	564867.32	4217085.29	564867.32, 4217085.29	4.03734	3.88027	2.12385	1.05041	2.56E-02	2.97E-07	4.57E-03	6.78E-03	3.69E-02
149	UCART11	564902.32	4217085.29	564902.32, 4217085.29	2.99883	2.75031	1.65529	0.85048	1.90E-02	2.40E-07	3.56E-03	5.49E-03	2.80E-02
150	UCART11	564937.32	4217085.29	564937.32, 4217085.29	2.28433	2.0893	1.33316	0.71054	1.45E-02	2.01E-07	2.87E-03	4.59E-03	2.19E-02
151	UCART12	564972.32	4217085.29	564972.32, 4217085.29	1.79797	1.6505	1.09872	0.60609	1.14E-02	1.71E-07	2.36E-03	3.91E-03	1.77E-02
152	UCART12	565007.32	4217085.29	565007.32, 4217085.29	1.44955	1.33827	0.91964	0.52381	9.18E-03	1.48E-07	1.98E-03	3.38E-03	1.45E-02
153	UCART12	565042.32	4217085.29	565042.32, 4217085.29	1.19149	1.1069	0.77965	0.45749	7.55E-03	1.29E-07	1.68E-03	2.95E-03	1.22E-02
154	UCART12	565077.32	4217085.29	565077.32, 4217085.29	0.9957	0.93079	0.66878	0.40343	6.31E-03	1.14E-07	1.44E-03	2.60E-03	1.03E-02
155	UCART12	565112.32	4217085.29	565112.32, 4217085.29	0.84447	0.7939	0.58032	0.35917	5.35E-03	1.02E-07	1.25E-03	2.32E-03	8.92E-03
156	UCART12	565147.32	4217085.29	565147.32, 4217085.29	0.72482	0.68473	0.50821	0.3221	4.59E-03	9.10E-08	1.09E-03	2.08E-03	7.76E-03
157	UCART12	565182.32	4217085.29	565182.32, 4217085.29	0.62915	0.59665	0.44935	0.29112	3.99E-03	8.23E-08	9.67E-04	1.88E-03	6.83E-03
158	UCART12	563957.32	4217120.29	563957.32, 4217120.29	0.10057	0.09289	0.0896	0.07986	6.37E-04	2.26E-08	1.93E-04	5.15E-04	1.35E-03
159	UCART12	563992.32	4217120.29	563992.32, 4217120.29	0.11115	0.10138	0.09925	0.08754	7.04E-04	2.47E-08	2.13E-04	5.65E-04	1.48E-03
160	UCART12	564027.32	4217120.29	564027.32, 4217120.29	0.12266	0.11117	0.11023	0.0962	7.77E-04	2.72E-08	2.37E-04	6.21E-04	1.63E-03
161	UCART13	564062.32	4217120.29	564062.32, 4217120.29	0.13657	0.12295	0.12443	0.10711	8.65E-04	3.03E-08	2.68E-04	6.91E-04	1.82E-03
162	UCART13	564097.32	4217120.29	564097.32, 4217120.29	0.15413	0.13701	0.14495	0.12233	9.76E-04	3.46E-08	3.12E-04	7.89E-04	2.08E-03
163	UCART13	564132.32	4217120.29	564132.32, 4217120.29	0.17482	0.15311	0.17059	0.14126	1.11E-03	3.99E-08	3.67E-04	9.12E-04	2.39E-03

164	UCART13	564692.32	4217120.29	564692.32, 4217120.29	47.80993	7.26564	9.40865	2.51211	3.03E-01	7.10E-07	2.02E-02	1.62E-02	3.39E-01
165	UCART13	564727.32	4217120.29	564727.32, 4217120.29	25.50689	10.10355	6.18772	1.88976	1.62E-01	5.34E-07	1.33E-02	1.22E-02	1.87E-01
166	UCART13	564762.32	4217120.29	564762.32, 4217120.29	13.71852	14.97836	4.29803	1.45608	8.69E-02	4.12E-07	9.25E-03	9.40E-03	1.06E-01
167	UCART13	564797.32	4217120.29	564797.32, 4217120.29	8.15627	7.39241	3.12168	1.15324	5.17E-02	3.26E-07	6.71E-03	7.44E-03	6.58E-02
168	UCART13	564832.32	4217120.29	564832.32, 4217120.29	5.3195	4.54172	2.33716	0.92852	3.37E-02	2.62E-07	5.03E-03	5.99E-03	4.47E-02
169	UCART13	564867.32	4217120.29	564867.32, 4217120.29	3.73805	3.18769	1.82386	0.77393	2.37E-02	2.19E-07	3.92E-03	4.99E-03	3.26E-02
170	UCART13	564902.32	4217120.29	564902.32, 4217120.29	2.74859	2.36592	1.45128	0.6517	1.74E-02	1.84E-07	3.12E-03	4.21E-03	2.47E-02
171	UCART14	564937.32	4217120.29	564937.32, 4217120.29	2.08446	1.83457	1.17191	0.55286	1.32E-02	1.56E-07	2.52E-03	3.57E-03	1.93E-02
172	UCART14	564972.32	4217120.29	564972.32, 4217120.29	1.63282	1.46031	0.96541	0.47644	1.03E-02	1.35E-07	2.08E-03	3.07E-03	1.55E-02
173	UCART14	565007.32	4217120.29	565007.32, 4217120.29	1.31238	1.19125	0.80887	0.41611	8.31E-03	1.18E-07	1.74E-03	2.69E-03	1.27E-02
174	UCART14	565042.32	4217120.29	565042.32, 4217120.29	1.07779	0.99107	0.68805	0.36783	6.83E-03	1.04E-07	1.48E-03	2.37E-03	1.07E-02
175	UCART14	565077.32	4217120.29	565077.32, 4217120.29	0.90064	0.83744	0.59262	0.32824	5.71E-03	9.28E-08	1.27E-03	2.12E-03	9.10E-03
176	UCART14	565112.32	4217120.29	565112.32, 4217120.29	0.76548	0.71845	0.51744	0.29615	4.85E-03	8.37E-08	1.11E-03	1.91E-03	7.87E-03
177	UCART14	565147.32	4217120.29	565147.32, 4217120.29	0.65705	0.62162	0.45471	0.26814	4.16E-03	7.58E-08	9.78E-04	1.73E-03	6.87E-03
178	UCART14	565182.32	4217120.29	565182.32, 4217120.29	0.57082	0.54362	0.40368	0.24469	3.62E-03	6.92E-08	8.68E-04	1.58E-03	6.06E-03
179	UCART14	563957.32	4217155.29	563957.32, 4217155.29	0.1013	0.09376	0.09078	0.0797	6.42E-04	2.25E-08	1.95E-04	5.14E-04	1.35E-03
180	UCART14	563992.32	4217155.29	563992.32, 4217155.29	0.1112	0.10245	0.10046	0.08725	7.04E-04	2.47E-08	2.16E-04	5.63E-04	1.48E-03
181	UCART15	564027.32	4217155.29	564027.32, 4217155.29	0.12272	0.11248	0.11147	0.09575	7.77E-04	2.71E-08	2.40E-04	6.18E-04	1.64E-03
182	UCART15	564062.32	4217155.29	564062.32, 4217155.29	0.13652	0.12444	0.12511	0.1061	8.65E-04	3.00E-08	2.69E-04	6.85E-04	1.82E-03
183	UCART15	564097.32	4217155.29	564097.32, 4217155.29	0.15375	0.13914	0.14376	0.1199	9.74E-04	3.39E-08	3.09E-04	7.74E-04	2.06E-03
184	UCART15	564132.32	4217155.29	564132.32, 4217155.29	0.17505	0.15592	0.17093	0.13972	1.11E-03	3.95E-08	3.68E-04	9.02E-04	2.38E-03
185	UCART15	564692.32	4217155.29	564692.32, 4217155.29	51.7546	11.87164	5.79096	1.51966	3.28E-01	4.30E-07	1.25E-02	9.81E-03	3.50E-01
186	UCART15	564727.32	4217155.29	564727.32, 4217155.29	20.74889	20.0709	4.05696	1.20578	1.31E-01	3.41E-07	8.73E-03	7.78E-03	1.48E-01
187	UCART15	564762.32	4217155.29	564762.32, 4217155.29	10.32847	9.34392	2.90105	0.94429	6.54E-02	2.67E-07	6.24E-03	6.09E-03	7.78E-02
188	UCART15	564797.32	4217155.29	564797.32, 4217155.29	6.20758	5.35908	2.18782	0.77542	3.93E-02	2.19E-07	4.71E-03	5.00E-03	4.90E-02
189	UCART15	564832.32	4217155.29	564832.32, 4217155.29	4.15797	3.64096	1.71899	0.65824	2.63E-02	1.86E-07	3.70E-03	4.25E-03	3.43E-02
190	UCART15	564867.32	4217155.29	564867.32, 4217155.29	2.96337	2.66327	1.38017	0.56518	1.88E-02	1.60E-07	2.97E-03	3.65E-03	2.54E-02
191	UCART16	564902.32	4217155.29	564902.32, 4217155.29	2.20447	2.0308	1.12552	0.48837	1.40E-02	1.38E-07	2.42E-03	3.15E-03	1.95E-02
192	UCART16	564937.32	4217155.29	564937.32, 4217155.29	1.69203	1.5935	0.92878	0.42369	1.07E-02	1.20E-07	2.00E-03	2.73E-03	1.55E-02
193	UCART16	564972.32	4217155.29	564972.32, 4217155.29	1.3369	1.28215	0.77784	0.37118	8.47E-03	1.05E-07	1.67E-03	2.40E-03	1.25E-02
194	UCART16	565007.32	4217155.29	565007.32, 4217155.29	1.08134	1.05222	0.66004	0.32825	6.85E-03	9.28E-08	1.42E-03	2.12E-03	1.04E-02
195	UCART16	565042.32	4217155.29	565042.32, 4217155.29	0.89335	0.87915	0.56774	0.29347	5.66E-03	8.30E-08	1.22E-03	1.89E-03	8.77E-03
196	UCART16	565077.32	4217155.29	565077.32, 4217155.29	0.75046	0.74501	0.49362	0.26452	4.75E-03	7.48E-08	1.06E-03	1.71E-03	7.52E-03
197	UCART16	565112.32	4217155.29	565112.32, 4217155.29	0.64128	0.641	0.43452	0.24084	4.06E-03	6.81E-08	9.35E-04	1.55E-03	6.55E-03
198	UCART16	565147.32	4217155.29	565147.32, 4217155.29	0.5568	0.55954	0.38742	0.22162	3.53E-03	6.26E-08	8.33E-04	1.43E-03	5.79E-03
199	UCART16	565182.32	4217155.29	565182.32, 4217155.29	0.48738	0.49207	0.34736	0.20454	3.09E-03	5.78E-08	7.47E-04	1.32E-03	5.15E-03
200	UCART16	563957.32	4217190.29	563957.32, 4217190.29	0.10094	0.09444	0.09146	0.0791	6.39E-04	2.24E-08	1.97E-04	5.10E-04	1.35E-03
201	UCART17	563992.32	4217190.29	563992.32, 4217190.29	0.11078	0.10331	0.10109	0.08649	7.02E-04	2.44E-08	2.17E-04	5.58E-04	1.48E-03
202	UCART17	564027.32	4217190.29	564027.32, 4217190.29	0.12234	0.11368	0.11245	0.09509	7.75E-04	2.69E-08	2.42E-04	6.14E-04	1.63E-03
203	UCART17	564062.32	4217190.29	564062.32, 4217190.29	0.13606	0.12597	0.12599	0.10521	8.62E-04	2.97E-08	2.71E-04	6.79E-04	1.81E-03
204	UCART17	564097.32	4217190.29	564097.32, 4217190.29	0.153	0.14096	0.14375	0.1183	9.69E-04	3.34E-08	3.09E-04	7.63E-04	2.04E-03
205	UCART17	564692.32	4217190.29	564692.32, 4217190.29	23.15421	15.15367	2.71501	0.93473	1.47E-01	2.64E-07	5.84E-03	6.03E-03	1.59E-01
206	UCART17	564727.32	4217190.29	564727.32, 4217190.29	10.52098	13.13737	2.11131	0.78408	6.66E-02	2.22E-07	4.54E-03	5.06E-03	7.63E-02
207	UCART17	564762.32	4217190.29	564762.32, 4217190.29	5.78899	6.59863	1.63592	0.64012	3.67E-02	1.81E-07	3.52E-03	4.13E-03	4.43E-02
208	UCART17	564797.32	4217190.29	564797.32, 4217190.29	3.74859	4.18813	1.33053	0.54772	2.37E-02	1.55E-07	2.86E-03	3.53E-03	3.01E-02
209	UCART17	564832.32	4217190.29	564832.32, 4217190.29	2.65819	2.9631	1.10663	0.47787	1.68E-02	1.35E-07	2.38E-03	3.08E-03	2.23E-02
210	UCART17	564867.32	4217190.29	564867.32, 4217190.29	1.98377	2.23132	0.93285	0.42097	1.26E-02	1.19E-07	2.01E-03	2.72E-03	1.73E-02
211	UCART18	564902.32	4217190.29	564902.32, 4217190.29	1.53037	1.73547	0.79181	0.37161	9.69E-03	1.05E-07	1.70E-03	2.40E-03	1.38E-02
212	UCART18	564937.32	4217190.29	564937.32, 4217190.29	1.20858	1.3776	0.67533	0.32803	7.66E-03	9.27E-08	1.45E-03	2.12E-03	1.12E-02
213	UCART18	564972.32	4217190.29	564972.32, 4217190.29	0.97801	1.11731	0.58131	0.29149	6.20E-03	8.24E-08	1.25E-03	1.88E-03	9.33E-03
214	UCART18	565007.32	4217190.29	565007.32, 4217190.29	0.80696	0.92177	0.50458	0.26072	5.11E-03	7.37E-08	1.09E-03	1.68E-03	7.88E-03
215	UCART18	565042.32	4217190.29	565042.32, 4217190.29	0.67884	0.7738	0.44275	0.2357	4.30E-03	6.66E-08	9.52E-04	1.52E-03	6.77E-03
216	UCART18	565077.32	4217190.29	565077.32, 4217190.29	0.58013	0.65903	0.39207	0.21488	3.68E-03	6.07E-08	8.43E-04	1.39E-03	5.91E-03
217	UCART18	565112.32	4217190.29	565112.32, 4217190.29	0.50432	0.57063	0.35116	0.19801	3.19E-03	5.60E-08	7.55E-04	1.28E-03	5.23E-03
218	UCART18	565147.32	4217190.29	565147.32, 4217190.29	0.44506	0.5015	0.31801	0.18433	2.82E-03	5.21E-08	6.84E-04	1.19E-03	4.69E-03
219	UCART18	565182.32	4217190.29	565182.32, 4217190.29	0.39463	0.44315	0.28867	0.17166	2.50E-03	4.85E-08	6.21E-04	1.11E-03	4.23E-03
220	UCART18	563957.32	4217225.29	563957.32, 4217225.29	0.10029	0.095	0.09174	0.07835	6.35E-04	2.21E-08	1.97E-04	5.06E-04	1.34E-03
221	UCART19	563992.32	4217225.29	563992.32, 4217225.29	0.10997	0.10397	0.1011	0.08547	6.97E-04	2.42E-08	2.17E-04	5.52E-04	1.47E-03
222	UCART19	564027.32	4217225.29	564027.32, 4217225.29	0.12142	0.11462	0.11244	0.09399	7.69E-04	2.66E-08	2.42E-04	6.07E-04	1.62E-03
223	UCART19	564062.32	4217225.29	564062.32, 4217225.29	0.1351	0.12737	0.12618	0.10423	8.56E-04	2.95E-08	2.71E-04	6.73E-04	1.80E-03
224	UCART19	564097.32	4217225.29	564097.32, 4217225.29	0.15223	0.14242	0.14504	0.11819	9.64E-04	3.34E-08	3.12E-04	7.63E-04	2.04E-03
225	UCART19	564552.32	4217225.29	564552.32, 4217225.29	5.59324	2.0794	3.96949	1.19519	3.54E-02	3.38E-07	8.54E-03	7.71E-03	5.17E-02
226	UCART19	564587.32	4217225.29	564587.32, 4217225.29	12.55935	3.32701	3.33827	1.02088	7.96E-02	2.89E-07	7.18E-03	6.59E-03	9.33E-02
227	UCART19	564622.32	4217225.29	564622.32, 4217225.29	21.6037	6.49905	2.54908	0.87326	1.37E-01	2.47E-07	5.48E-03	5.64E-03	1.48E-01
228	UCART19	564657.32	4217225.29	564657.32, 4217225.29	14.38644	11.76846	1.92777	0.75207	9.11E-02	2.13E-07	4.15E-03	4.85E-03	1.00E-01
229	UCART19	564692.32	4217225.29	564692.32, 4217225.29	7.50117	18.05798	1.49051	0.64699	4.75E-02	1.83E-07	3.21E-03	4.18E-03	5.49E-02
230	UCART19	564727.32	4217225.29	564727.32, 4217225.29	4.4796	8.44845	1.18837	0.55519	2.84E-02	1.57E-07	2.56E-03	3.58E-03	3.45E-02
231	UCART20	564762.32	4217225.29	564762.32, 4217225.29	2.90512	4.96016	0.96403	0.47121	1.84E-02	1.33E-07	2.07E-03	3.04E-03	2.35E-02
232	UCART20	564797.32	4217225.29	564797.32, 4217225.29	2.06401	3.35876	0.81754	0.4124	1.31E-02	1.17E-07	1.76E-03	2.66E-03	1.75E-02
233	UCART20	564832.32	4217225.29	564832.32, 4217225.29	1.56267	2.45242	0.70778	0.36627	9.90E-03	1.04E-07	1.52E-03	2.36E-03	1.38E-02
234	UCART20	564867.32	4217225.29	564867.32, 4217225.29	1.23333	1.87359	0.61952	0.32775	7.81E-03	9.26E-08	1.33E-03	2.12E-03	1.13E-02
235	UCART20	564902.32	4217225.29	564902.32, 4217225.29	0.9935	1.48315	0.54354	0.29291	6.29E-03	8.28E-08	1.17E-03	1.89E-03	9.35E-03
236	UCART20	564937.32	4217225.29	564937.32, 4217225.29	0.81311	1.18564	0.47828	0.26185	5.15E-03	7.40E-08	1.03E-03	1.69E-03	7.87E-03
237	UCART20	564972.32	4217225.29	564972.32, 4217225.29	0.67842	0.96903	0.42335	0.23529	4.30E-03	6.65E-08	9.11E-04	1.52E-03	6.73E-03
238	UCART20	565007.32	4217225.29	565007.32, 4217225.29	0.57483	0.80461	0.37665	0.21248	3.64E-03	6.01E-08	8.10E-04	1.37E-03	5.82E-03
239	UCART20	565042.32	4217225.29	565042.32, 4217225.29	0.49416	0.67823	0.33729	0.19342	3.13E-03	5.47E-08	7.26E-04	1.25E-03	5.10E-03
240	UCART20	565077.32	4217225.29	565077.32, 4217225.29	0.43313	0.58279	0.30545	0.17845	2.74E-03	5.04E-08	6.57E-04	1.15E-03	4.55E-03
241	UCART21	565112.32	4217225.29	565112.32, 4217225.29	0.38458	0.5079	0.27866	0.166	2.44E-03	4.69E-08	5.99E-04	1.07E-03	4.11E-03
242	UCART21	565147.32	4217225.29	565147.32, 4217225.29	0.34407	0.44691	0.25525	0.15503	2.18E-03	4.38E-08	5.49E-04	1.00E-03	3.73E-03
243	UCART21	565182.32	4217225.29	565182.32, 4217225.29	0.30948	0.39622	0.23447	0.1451	1.96E-03	4.10E-08	5.04E-04	9.36E-04	3.40E-03
244	UCART21	564552.32	4217260.29	564552.32, 4217260.29	3.65352	2.7167	2.10203	0.76387	2.31E-02	2.16E-07	4.52E-03	4.93E-03	3.26E-02
245	UCART21	564587.32	4217260.29	564587.32, 4217260.29	5.344	4.87213	1.84066	0.69331	3.39E-02	1.96E-07	3.96E-03	4.47E-03	4.23E-02
246	UCART21	564622.32	4217260.29	564622.32, 4217260.29	6.17629	12.85104	1.55877	0.62287	3.91E-02	1.76E-07	3.35E-03	4.02E-03	4.65E-02
247	UCART21	564657.32	4217260.29	564657.32, 4217260.29	5.10786	16.31035	1.27358	0.55405	3.24E-02	1.57E-07	2.74E-03	3.58E-03	3.87E-02
248	UCART21	564692.32	4217260.29	564692.32, 4217260.29	3.53769	10.66644	1.0143	0.48628	2.24E-02	1.37E-07	2.18E-03	3.14E-03	2.77E-02
249	UCART21	564727.32	4217260.29	564727.32, 4217260.29	2.42641	5.92158	0.81252	0.424	1.54E-02	1.20E-07	1.75E-03	2.74E-03	1.99E-02
250	UCART21	564762.32	4217260.29	564762.32, 4217260.29	1.72765	3.8177	0.6667	0.36981	1.09E-02	1.05E-07	1.43E-03	2.39E-03	1.48E-02
251	UCART22	564797.32	4217260.29	564797.32, 4217260.29	1.28973	2.70011	0.56813	0.32823	8.17E-03	9.28E-08	1.22E-03	2.12E-03	1.15E-02
252	UCART22	564832.32	4217260.29	564832.32, 4217260.29	1.01431	2.02045	0.49637	0.29482	6.43E-03	8.33E-08	1.07E-03	1.90E-03	9.40E-03
253	UCART22	564867.32	4217260.29	564867.32, 4217260.29	0.82728	1.57005	0.44068	0.26687	5.24E-03	7.54E-08	9.48E-04	1.72E-03	7.91E-03
254	UCART22	564902.32	4217260.29	564902.32, 4217260.29	0.68395	1.24652	0.39284	0.24083	4.33E-03	6.81E-08	8.45E-04	1.55E-03	6.73E-03
255	UCART22	564937.32	4217260.29	564937.32, 4217260.29	0.5728	1.01526	0.35162	0.2172	3.63E-03	6.14E-08	7.56E-04	1.40E-03	5.79E-03
256	UCART22	564972.32	4217260.29	564972.32, 4217260.29	0.48885	0.83799	0.31718	0.19709	3.10E-03	5.57E-08	6.82E-04	1.27E-03	5.05E-03
257	UCART22	565007.32	4217260.29	565007.32, 4217260.29	0.4225	0.70189	0.28736	0.17946	2.68E-03	5.07E-08	6.18E-04	1.16E-03	4.45E-03
258	UCART22	565042.32	4217260.29	565042.32, 4217260.29	0.36997	0.59641	0.26174	0.16444	2.34E-03	4.65E-08	5.63E-04	1.06E-03	3.97E-03
259	UCART22	565077.32	4217260.29	565077.32, 4217260.29	0.32969	0.51556	0.24054	0.15246	2.09E-03	4.31E-08	5.17E-04	9.84E-04	3.59E-03
260	UCART22	565112.32	4217260.29	565112.32, 4217260.29	0.29615	0.45035	0.22186	0.14203	1.88E-03	4.01E-08	4.77E-04	9.17E-04	3.27E-03
261	UCART23	565147.32	4217260.29	565147.32, 4217260.29	0.2673	0.39647	0.20503	0.13266	1.69E-03	3.75E-08	4.41E-04	8.56E-04	2.99E-03
262	UCART23	565182.32	4217260.29	565182.32, 4217260.29	0.24328	0.35263	0.19033	0.1246	1.54E-03	3.52E-08	4.09E-04	8.04E-04	2.75E-03
263	UCART23	564552.32	4217295.29	564552.32, 4217295.29	2.35576	3.77348	1.30026	0.5448	1.49E-02	1.54E-07	2.80E-03	3.52E-03	2.12E-02
264	UCART23	564587.32	4217295.29	564587.32, 4217295.29	2.83886	8.2294	1.177	0.50924	1.80E-02	1.44E-07	2.53E-03	3.29E-03	2.38E-02
265	UCART23	564622.32	4217295.29	564622.32, 4217295.29	2.93098	16.18611	1.04193	0.46893	1.86E-02	1.33E-07	2.24E-03	3.03E-03	2.38E-02
266	UCART23	564657.32	4217295.29	564657.32, 4217295.29	2.58836	13.96161	0.89554	0.42525	1.64E-02	1.20E-07	1.93E-03	2.74E-03	2.11E-02
267	UCART23	564692.32	4217295.29	564692.32, 4217295.29	2.0769	7.10193	0.74849	0.38193	1.32E-02	1.08E-07	1.61E-03	2.46E-03	1.72E-02
268	UCART23	564727.32	4217295.29	564727.32, 4217295.29	1.60679	4.39951	0.62224	0.34281	1.02E-02	9.69E-08	1.34E-03	2.21E-03	1.37E-02
269	UCART23	564762.32	4217295.29	564762.32, 4217295.29	1.23227	2.99994	0.51791	0.30523	7.81E-03	8.63E-08	1.11E-03	1.97E-03	1.09E-02
270	UCART23	564797.32	4217295.29	564797.32, 4217295.29	0.9377	2.17095	0.43806	0.27155	5.94E-03	7.68E-08	9.42E-04	1.75E-03	8.63E-03
271	UCART24	564832.32	4217295.29	564832.32, 4217295.29	0.75632	1.65637	0.38312	0.24634	4.79E-03	6.96E-08	8.24E-04	1.59E-03	7.21E-03
272	UCART24	564867.32	4217295.29	564867.32, 4217295.29	0.623	1.30606	0.34087	0.22483	3.95E-03	6.35E-08	7.33E-04	1.45E-03	6.13E-03
273	UCART24	564902.32	4217295.29	564902.32, 4217295.29	0.52001	1.0501	0.30493	0.20432	3.29E-03	5.78E-08	6.56E-04	1.32E-03	5.27E-03
274	UCART24	564937.32	4217295.29	564937.32, 4217295.29	0.44029	0.8632	0.27468	0.18569	2.79E-03	5.25E-08	5.91E-04	1.20E-03	4.58E-03
275	UCART24	564972.32	4217295.29	564972.32, 4217295.29	0.38013	0.7202	0.24989	0.16983	2.41E-03	4.80E-08	5.38E-04	1.10E-03	4.04E-03
276	UCART24	565007.32	4217295.29	565007.32, 4217295.29	0.33211	0.60943	0.22861	0.15579	2.10E-03	4.40E-08	4.92E-04	1.01E-03	3.60E-03
277	UCART24	565042.32	4217295.29	565042.32, 4217295.29	0.2945	0.52324	0.2106	0.14385	1.87E-03	4.07E-08	4.53E-04	9.28E-04	3.25E-03
278	UCART24	565077.32	4217295.29	565077.32, 4217295.29	0.26319	0.45388	0.19465	0.13324	1.67E-03	3.77E-08	4.19E-04	8.60E-04	2.95E-03
279	UCART24	565112.32	4217295.29	565112.32, 4217295.29	0.23759	0.39795	0.18076	0.12419	1.51E-03	3.51E-08	3.89E-04	8.01E-04	2.70E-03
280	UCART24	565147.32	4217295.29	565147.32, 4217295.29	0.21559	0.35147	0.16825	0.11612	1.37E-03	3.28E-08	3.62E-04	7.49E-04	2.48E-03
281	UCART25	565182.32	4217295.29	565182.32, 4217295.29	0.19759	0.31365	0.15739	0.1093	1.25E-03	3.09E-08	3.39E-04	7.05E-04	2.30E-03
282	UCART25	564552.32	4217330.29	564552.32, 4217330.29	1.57477	5.81628	0.88306	0.4132	9.98E-03	1.17E-07	1.90E-03	2.67E-03	1.45E-02
283	UCART25	564587.32	4217330.29	564587.32, 4217330.29	1.72595	14.16646	0.81583	0.39191	1.09E-02	1.11E-07	1.75E-03	2.53E-03	1.52E-02
284	UCART25	564622.32	4217330.29	564622.32, 4217330.29	1.71661	19.43413	0.74049	0.36631	1.09E-02	1.04E-07	1.59E-03	2.36E-03	1.48E-02
285	UCART25	564657.32	4217330.29	564657.32, 4217330.29	1.55753	8.63934	0.65447	0.33575	9.87E-03	9.49E-08	1.41E-03	2.17E-03	1.34E-02
286	UCART25	564692.32	4217330.29	564692.32, 4217330.29	1.34744	5.01705	0.57183	0.30815	8.54E-03	8.71E-08	1.23E-03	1.99E-03	1.18E-02
287	UCART25	564727.32	4217330.29	564727.32, 4217330.29	1.1295	3.32424	0.49533	0.28357	7.16E-03	8.02E-08	1.07E-03	1.83E-03	1.01E-02
288	UCART25	564762.32	4217330.29	564762.32, 4217330.29	0.92228	2.35541	0.42284	0.25768	5.84E-03	7.28E-08	9.10E-04	1.66E-03	8.41E-03
289	UCART25	564797.32	4217330.29	564797.32, 4217330.29	0.73442	1.74338	0.35981	0.23154	4.65E-03	6.54E-08	7.74E-04	1.49E-03	6.92E-03
290	UCART25	564832.32	4217330.29	564832.32, 4217330.29	0.61311	1.35839	0.31724	0.21327	3.88E-03	6.03E-08	6.82E-04	1.38E-03	5.94E-03
291	UCART26	564867.32	4217330.29	564867.32, 4217330.29	0.51197	1.08455	0.28164	0.19543	3.24E-03	5.52E-08	6.06E-04	1.26E-03	5.11E-03
292	UCART26	564902.32	4217330.29	564902.32, 4217330.29	0.42165	0.88007	0.25033	0.17718	2.67E-03	5.01E-08	5.38E-04	1.14E-03	4.35E-03
293	UCART26	564937.32	4217330.29	564937.32, 4217330.29	0.36059	0.72948	0.22616	0.16223	2.28E-03	4.59E-08	4.86E-04	1.05E-03	3.82E-03
294	UCART26	564972.32	4217330.29	564972.32, 4217330.29	0.31499	0.61638	0.20682	0.14967	2.00E-03	4.23E-08	4.45E-04	9.66E-04	3.41E-03
295	UCART26	565007.32	4217330.29	565007.32, 4217330.29	0.27826	0.52788	0.19038	0.13848	1.76E-03	3.91E-08	4.10E-04	8.94E-04	3.07E-03
296	UCART26	565042.32	4217330.29	565042.32, 4217330.29	0.24822	0.45729	0.1762	0.12851	1.57E-03	3.63E-08	3.79E-04	8.29E-04	2.78E-03
297	UCART26	565077.32	4217330.29	565077.32, 4217330.29	0.22212	0.39887	0.16341	0.11922	1.41E-03	3.37E-08	3.52E-04	7.69E-04	2.53E-03
298	UCART26	565112.32	4217330.29	565112.32, 4217330.29	0.20084	0.35149	0.15231	0.11118	1.27E-03	3.14E-08	3.28E-04	7.17E-04	2.32E-03
299	UCART26	565147.32	4217330.29	565147.32, 4217330.29	0.18249	0.31172	0.14232	0.10399	1.16E-03	2.94E-08	3.06E-04	6.71E-04	2.13E-03
300	UCART26	565182.32	4217330.29	565182.32, 4217330.29	0.16763	0.2791	0.13369	0.09795	1.06E-03	2.77E-08	2.88E-04	6.32E-04	1.98E-03
301	UCART27	564552.32	4217365.29	564552.32, 4217365.29	1.10077	11.01558	0.63875	0.32643	6.97E-03	9.23E-08	1.37E-03	2.11E-03	1.05E-02
302	UCART27	564587.32	4217365.29	564587.32, 4217365.29	1.14929	18.4273	0.59687	0.31168	7.28E-03	8.81E-08	1.28E-03	2.01E-03	1.06E-02
303	UCART27	564622.32	4217365.29	564622.32, 4217365.29	1.1272	10.90354	0.5504	0.29403	7.14E-03	8.31E-08	1.18E-03	1.90E-03	1.02E-02
304	UCART27	564657.32	4217365.29	564657.32, 4217365.29	1.04569	5.78942	0.49834	0.2732	6.62E-03	7.72E-08	1.07E-03	1.76E-03	9.46E-03
305	UCART27	564692.32	4217365.29	564692.32, 4217365.29	0.94216	3.62587	0.44879	0.25446	5.97E-03	7.19E-08	9.65E-04	1.64E-03	8.58E-03
306	UCART27	564727.32	4217365.29	564727.32, 4217365.29	0.82807	2.5042	0.40111	0.23786	5.25E-03	6.72E-08	8.63E-04	1.53E-03	7.64E-03
307	UCART27	564762.32	4217365.29	564762.32, 4217365.29	0.70991	1.83181	0.35282	0.22042	4.50E-03	6.23E-08	7.59E-04	1.42E-03	6.68E-03
308	UCART27	564797.32	4217365.29	564797.32, 4217365.29	0.60182	1.3964	0.30808	0.20275	3.81E-03	5.73E-08	6.63E-04	1.31E-03	5.78E-03
309	UCART27	564832.32	4217365.29	564832.32, 4217365.29	0.49979	1.09763	0.26916	0.18533	3.17E-03	5.24E-08	5.79E-04	1.20E-03	4.94E-03
310	UCART27	564867.32	4217365.29	564867.32, 4217365.29	0.41	0.88352	0.23658	0.16864	2.60E-03	4.77E-08	5.09E-04	1.09E-03	4.19E-03
311	UCART28	564902.32	4217365.29	564902.32, 4217365.29	0.35245	0.7319	0.21286	0.15579	2.23E-03	4.40E-08	4.58E-04	1.01E-03	3.70E-03
312	UCART28	564937.32	4217365.29	564937.32, 4217365.29	0.30566	0.61294	0.19308	0.14387	1.94E-03	4.07E-08	4.15E-04	9.28E-04	3.28E-03
313	UCART28	564972.32	4217365.29	564972.32, 4217365.29	0.27061	0.52476	0.17743	0.13392	1.71E-03	3.79E-08	3.82E-04	8.64E-04	2.96E-03
314	UCART28	565007.32	4217365.29	565007.32, 4217365.29	0.24261	0.45542	0.16432	0.12514	1.54E-03	3.54E-08	3.53E-04	8.08E-04	2.70E-03
315	UCART28	565042.32	4217365.29	565042.32, 4217365.29	0.21843	0.39854	0.15269	0.11691	1.38E-03	3.30E-08	3.28E-04	7.54E-04	2.47E-03
316	UCART28	565077.32	4217365.29	565077.32, 4217365.29	0.19608	0.35013	0.14192	0.10882	1.24E-03	3.08E-08	3.05E-04	7.02E-04	2.25E-03
317	UCART28	565112.32	4217365.29	565112.32, 4217365.29	0.1769	0.30962	0.13235	0.10143	1.12E-03	2.87E-08	2.85E-04	6.55E-04	2.06E-03
318	UCART28	565147.32	4217365.29	565147.32, 4217365.29	0.16046	0.27554	0.12379	0.09476	1.02E-03	2.68E-08	2.66E-04	6.11E-04	1.89E-03
319	UCART28	565182.32	4217365.29	565182.32, 4217365.29	0.1472	0.24745	0.11644	0.08918	9.32E-04	2.52E-08	2.50E-04	5.75E-04	1.76E-03
320	UCART28	564552.32	4217400.29	564552.32, 4217400.29	0.80333	12.61809	0.48444	0.26595	5.09E-03	7.52E-08	1.04E-03	1.72E-03	7.85E-03
321	UCART29	564587.32	4217400.29	564587.32, 4217400.29	0.81658	14.3002	0.45478	0.2543	5.17E-03	7.19E-08	9.78E-04	1.64E-03	7.79E-03
322	UCART29	564622.32	4217400.29	564622.32, 4217400.29	0.79636	6.77629	0.42342	0.24111	5.04E-03	6.82E-08	9.11E-04	1.56E-03	7.51E-03
323	UCART29	564657.32	4217400.29	564657.32, 4217400.29	0.75252	3.95595	0.39167	0.22724	4.77E-03	6.42E-08	8.42E-04	1.47E-03	7.08E-03
324	UCART29	564692.32	4217400.29	564692.32, 4217400.29	0.69855	2.61925	0.36279	0.2155	4.43E-03	6.09E-08	7.80E-04	1.39E-03	6.60E-03
325	UCART29	564727.32	4217400.29	564727.32, 4217400.29	0.63083	1.86684	0.33012	0.20263	4.00E-03	5.73E-08	7.10E-04	1.31E-03	6.01E-03
326	UCART29	564762.32	4217400.29	564762.32, 4217400.29	0.55945	1.40688	0.29773	0.19036	3.54E-03	5.38E-08	6.40E-04	1.23E-03	5.41E-03
327	UCART29	564797.32	4217400.29	564797.32, 4217400.29	0.48908	1.10004	0.26529	0.17743	3.10E-03	5.02E-08	5.71E-04	1.14E-03	4.81E-03
328	UCART29	564832.32	4217400.29	564832.32, 4217400.29	0.41818	0.88188	0.23387	0.1634	2.65E-03	4.62E-08	5.03E-04	1.05E-03	4.21E-03
329	UCART29	564867.32	4217400.29	564867.32, 4217400.29	0.34339	0.71763	0.20491	0.14857	2.18E-03	4.20E-08	4.41E-04	9.59E-04	3.57E-03
330	UCART29	564902.32	4217400.29	564902.32, 4217400.29	0.30101	0.60105	0.18549	0.13862	1.91E-03	3.92E-08	3.99E-04	8.95E-04	3.20E-03
331	UCART30	564937.32	4217400.29	564937.32, 4217400.29	0.26484	0.51169	0.16901	0.12912	1.68E-03	3.65E-08	3.64E-04	8.33E-04	2.87E-03
332	UCART30	564972.32	4217400.29	564972.32, 4217400.29	0.2363	0.44266	0.15565	0.12081	1.50E-03	3.41E-08	3.35E-04	7.80E-04	2.61E-03
333	UCART30	565007.32	4217400.29	565007.32, 4217400.29	0.21392	0.38839	0.1447	0.11363	1.36E-03	3.21E-08	3.11E-04	7.33E-04	2.40E-03
334	UCART30	565042.32	4217400.29	565042.32, 4217400.29	0.19374	0.34271	0.13475	0.10661	1.23E-03	3.01E-08	2.90E-04	6.88E-04	2.21E-03
335	UCART30	565077.32	4217400.29	565077.32, 4217400.29	0.17447	0.30297	0.12539	0.09949	1.11E-03	2.81E-08	2.70E-04	6.42E-04	2.02E-03
336	UCART30	565112.32	4217400.29	565112.32, 4217400.29	0.15779	0.26946	0.11708	0.09293	1.00E-03	2.63E-08	2.52E-04	6.00E-04	1.85E-03
337	UCART30	565147.32	4217400.29	565147.32, 4217400.29	0.14315	0.24084	0.1096	0.08688	9.07E-04	2.46E-08	2.36E-04	5.61E-04	1.70E-03
338	UCART30	565182.32	4217400.29	565182.32, 4217400.29	0.13179	0.21764	0.10336	0.08194	8.35E-04	2.32E-08	2.22E-04	5.29E-04	1.59E-03

339	UCART30	564447.32	4217435.29	564447.32	4217435.29	0.50047	2.13733	0.41057	0.23881	3.17E-03	6.75E-08	8.83E-04	1.54E-03	5.59E-03
340	UCART30	564482.32	4217435.29	564482.32	4217435.29	0.55146	4.58028	0.41221	0.23651	3.49E-03	6.69E-08	8.87E-04	1.53E-03	5.91E-03
341	UCART31	564517.32	4217435.29	564517.32	4217435.29	0.58889	8.22733	0.40004	0.23008	3.73E-03	6.50E-08	8.60E-04	1.48E-03	6.08E-03
342	UCART31	564552.32	4217435.29	564552.32	4217435.29	0.60846	20.05575	0.38012	0.22148	3.85E-03	6.26E-08	8.18E-04	1.43E-03	6.10E-03
343	UCART31	564587.32	4217435.29	564587.32	4217435.29	0.60902	7.93904	0.35758	0.21173	3.86E-03	5.98E-08	7.69E-04	1.37E-03	5.99E-03
344	UCART31	564622.32	4217435.29	564622.32	4217435.29	0.59275	4.22544	0.33471	0.20117	3.75E-03	5.69E-08	7.20E-04	1.30E-03	5.77E-03
345	UCART31	564657.32	4217435.29	564657.32	4217435.29	0.56889	2.65835	0.316	0.19245	3.60E-03	5.44E-08	6.80E-04	1.24E-03	5.53E-03
346	UCART31	564692.32	4217435.29	564692.32	4217435.29	0.53735	1.85121	0.29754	0.18431	3.40E-03	5.21E-08	6.40E-04	1.19E-03	5.23E-03
347	UCART31	564727.32	4217435.29	564727.32	4217435.29	0.4958	1.37091	0.27541	0.17476	3.14E-03	4.94E-08	5.92E-04	1.13E-03	4.86E-03
348	UCART31	564762.32	4217435.29	564762.32	4217435.29	0.45042	1.06595	0.25325	0.16577	2.85E-03	4.69E-08	5.45E-04	1.07E-03	4.47E-03
349	UCART31	564797.32	4217435.29	564797.32	4217435.29	0.40289	0.85472	0.22949	0.15584	2.55E-03	4.40E-08	4.94E-04	1.01E-03	4.05E-03
350	UCART31	564832.32	4217435.29	564832.32	4217435.29	0.35631	0.70235	0.20633	0.14571	2.26E-03	4.12E-08	4.44E-04	9.40E-04	3.64E-03
351	UCART32	564867.32	4217435.29	564867.32	4217435.29	0.29907	0.58401	0.18246	0.13366	1.89E-03	3.78E-08	3.92E-04	8.63E-04	3.15E-03
352	UCART32	564902.32	4217435.29	564902.32	4217435.29	0.26053	0.48902	0.16421	0.12425	1.65E-03	3.51E-08	3.53E-04	8.02E-04	2.81E-03
353	UCART32	564937.32	4217435.29	564937.32	4217435.29	0.23177	0.42202	0.15011	0.11651	1.47E-03	3.29E-08	3.23E-04	7.52E-04	2.54E-03
354	UCART32	564972.32	4217435.29	564972.32	4217435.29	0.20761	0.36834	0.13825	0.10931	1.32E-03	3.09E-08	2.97E-04	7.05E-04	2.32E-03
355	UCART32	565007.32	4217435.29	565007.32	4217435.29	0.18622	0.32337	0.12771	0.10223	1.18E-03	2.89E-08	2.75E-04	6.60E-04	2.11E-03
356	UCART32	565042.32	4217435.29	565042.32	4217435.29	0.16699	0.28508	0.11822	0.09527	1.06E-03	2.69E-08	2.54E-04	6.15E-04	1.93E-03
357	UCART32	565077.32	4217435.29	565077.32	4217435.29	0.15253	0.25537	0.11084	0.08977	9.66E-04	2.54E-08	2.38E-04	5.79E-04	1.78E-03
358	UCART32	565112.32	4217435.29	565112.32	4217435.29	0.13966	0.22992	0.10415	0.08456	8.85E-04	2.39E-08	2.24E-04	5.46E-04	1.65E-03
359	UCART32	565147.32	4217435.29	565147.32	4217435.29	0.12731	0.2071	0.0978	0.07936	8.06E-04	2.24E-08	2.10E-04	5.12E-04	1.53E-03
360	UCART32	565182.32	4217435.29	565182.32	4217435.29	0.1183	0.18904	0.0927	0.07534	7.49E-04	2.13E-08	1.99E-04	4.86E-04	1.44E-03
361	UCART33	564447.32	4217470.29	564447.32	4217470.29	0.41955	2.5745	0.33651	0.20354	2.66E-03	5.75E-08	7.24E-04	1.31E-03	4.70E-03
362	UCART33	564482.32	4217470.29	564482.32	4217470.29	0.44891	7.88584	0.33365	0.20071	2.84E-03	5.67E-08	7.18E-04	1.30E-03	4.86E-03
363	UCART33	564517.32	4217470.29	564517.32	4217470.29	0.46776	12.33679	0.32185	0.19479	2.96E-03	5.51E-08	6.92E-04	1.26E-03	4.91E-03
364	UCART33	564552.32	4217470.29	564552.32	4217470.29	0.4744	9.10649	0.30464	0.18683	3.01E-03	5.28E-08	6.55E-04	1.21E-03	4.87E-03
365	UCART33	564587.32	4217470.29	564587.32	4217470.29	0.47207	4.29174	0.28862	0.17936	2.99E-03	5.07E-08	6.21E-04	1.16E-03	4.77E-03
366	UCART33	564622.32	4217470.29	564622.32	4217470.29	0.46051	2.53864	0.27226	0.17122	2.92E-03	4.84E-08	5.86E-04	1.10E-03	4.61E-03
367	UCART33	564657.32	4217470.29	564657.32	4217470.29	0.44464	1.72268	0.25859	0.16429	2.82E-03	4.64E-08	5.56E-04	1.06E-03	4.43E-03
368	UCART33	564692.32	4217470.29	564692.32	4217470.29	0.42525	1.27256	0.24657	0.1586	2.69E-03	4.48E-08	5.30E-04	1.02E-03	4.25E-03
369	UCART33	564727.32	4217470.29	564727.32	4217470.29	0.39938	0.98684	0.23209	0.15197	2.53E-03	4.30E-08	4.99E-04	9.81E-04	4.01E-03
370	UCART33	564762.32	4217470.29	564762.32	4217470.29	0.36979	0.79494	0.2171	0.14553	2.34E-03	4.11E-08	4.67E-04	9.39E-04	3.75E-03
371	UCART34	564797.32	4217470.29	564797.32	4217470.29	0.33717	0.6557	0.20006	0.13805	2.14E-03	3.90E-08	4.30E-04	8.91E-04	3.46E-03
372	UCART34	564832.32	4217470.29	564832.32	4217470.29	0.30195	0.55065	0.18196	0.12974	1.91E-03	3.67E-08	3.91E-04	8.37E-04	3.14E-03
373	UCART34	564867.32	4217470.29	564867.32	4217470.29	0.25731	0.46719	0.16271	0.11997	1.63E-03	3.39E-08	3.50E-04	7.74E-04	2.75E-03
374	UCART34	564902.32	4217470.29	564902.32	4217470.29	0.22649	0.39127	0.14613	0.11137	1.43E-03	3.15E-08	3.14E-04	7.19E-04	2.47E-03
375	UCART34	564937.32	4217470.29	564937.32	4217470.29	0.20278	0.34161	0.13371	0.10476	1.28E-03	2.96E-08	2.88E-04	6.76E-04	2.25E-03
376	UCART34	564972.32	4217470.29	564972.32	4217470.29	0.18195	0.30076	0.12293	0.09836	1.15E-03	2.78E-08	2.64E-04	6.35E-04	2.05E-03
377	UCART34	565007.32	4217470.29	565007.32	4217470.29	0.16118	0.26345	0.11232	0.09106	1.02E-03	2.57E-08	2.42E-04	5.88E-04	1.85E-03
378	UCART34	565042.32	4217470.29	565042.32	4217470.29	0.14282	0.232	0.1036	0.08445	9.05E-04	2.39E-08	2.23E-04	5.45E-04	1.67E-03
379	UCART34	565077.32	4217470.29	565077.32	4217470.29	0.13108	0.20973	0.09761	0.08	8.30E-04	2.26E-08	2.10E-04	5.16E-04	1.56E-03
380	UCART34	565112.32	4217470.29	565112.32	4217470.29	0.1224	0.19254	0.09271	0.07637	7.75E-04	2.16E-08	1.99E-04	4.93E-04	1.47E-03
381	UCART35	565147.32	4217470.29	565147.32	4217470.29	0.11451	0.17729	0.08823	0.07292	7.25E-04	2.06E-08	1.90E-04	4.71E-04	1.39E-03
382	UCART35	565182.32	4217470.29	565182.32	4217470.29	0.10684	0.16318	0.08391	0.06947	6.77E-04	1.96E-08	1.80E-04	4.48E-04	1.31E-03
383	UCART35	564447.32	4217505.29	564447.32	4217505.29	0.35322	2.60707	0.28001	0.17578	2.24E-03	4.97E-08	6.02E-04	1.13E-03	3.97E-03
384	UCART35	564482.32	4217505.29	564482.32	4217505.29	0.36985	3.50304	0.2749	0.17251	2.34E-03	4.88E-08	5.91E-04	1.11E-03	4.05E-03
385	UCART35	564517.32	4217505.29	564517.32	4217505.29	0.37859	8.75539	0.26362	0.16681	2.40E-03	4.71E-08	5.67E-04	1.08E-03	4.04E-03
386	UCART35	564552.32	4217505.29	564552.32	4217505.29	0.38034	3.6248	0.25004	0.16016	2.41E-03	4.53E-08	5.38E-04	1.03E-03	3.98E-03
387	UCART35	564587.32	4217505.29	564587.32	4217505.29	0.37804	2.13777	0.23892	0.15465	2.39E-03	4.37E-08	5.14E-04	9.98E-04	3.91E-03
388	UCART35	564622.32	4217505.29	564622.32	4217505.29	0.3698	1.45859	0.22688	0.14828	2.34E-03	4.19E-08	4.88E-04	9.57E-04	3.79E-03
389	UCART35	564657.32	4217505.29	564657.32	4217505.29	0.35704	1.07942	0.21415	0.14126	2.26E-03	3.99E-08	4.61E-04	9.12E-04	3.63E-03
390	UCART35	564692.32	4217505.29	564692.32	4217505.29	0.34016	0.84823	0.20358	0.13558	2.15E-03	3.83E-08	4.38E-04	8.75E-04	3.47E-03
391	UCART36	564727.32	4217505.29	564727.32	4217505.29	0.32437	0.69433	0.19446	0.13116	2.05E-03	3.71E-08	4.18E-04	8.46E-04	3.32E-03
392	UCART36	564762.32	4217505.29	564762.32	4217505.29	0.30449	0.58192	0.18417	0.12639	1.93E-03	3.57E-08	3.96E-04	8.16E-04	3.14E-03
393	UCART36	564797.32	4217505.29	564797.32	4217505.29	0.27417	0.49381	0.17099	0.11994	1.74E-03	3.39E-08	3.68E-04	7.74E-04	2.88E-03
394	UCART36	564832.32	4217505.29	564832.32	4217505.29	0.24638	0.42633	0.15823	0.11393	1.56E-03	3.22E-08	3.40E-04	7.35E-04	2.64E-03
395	UCART36	564867.32	4217505.29	564867.32	4217505.29	0.22044	0.3586	0.14398	0.10683	1.40E-03	3.02E-08	3.10E-04	6.89E-04	2.40E-03
396	UCART36	564902.32	4217505.29	564902.32	4217505.29	0.19653	0.30781	0.1294	0.09908	1.24E-03	2.80E-08	2.78E-04	6.39E-04	2.16E-03
397	UCART36	564937.32	4217505.29	564937.32	4217505.29	0.17467	0.26902	0.11717	0.09228	1.11E-03	2.61E-08	2.52E-04	5.95E-04	1.95E-03
398	UCART36	564972.32	4217505.29	564972.32	4217505.29	0.1544	0.23702	0.10704	0.0861	9.78E-04	2.43E-08	2.30E-04	5.56E-04	1.76E-03
399	UCART36	565007.32	4217505.29	565007.32	4217505.29	0.13713	0.21005	0.09905	0.08066	8.69E-04	2.28E-08	2.13E-04	5.21E-04	1.60E-03
400	UCART36	565042.32	4217505.29	565042.32	4217505.29	0.12378	0.18836	0.09249	0.07584	7.84E-04	2.14E-08	1.99E-04	4.89E-04	1.47E-03
401	UCART37	565077.32	4217505.29	565077.32	4217505.29	0.11531	0.17312	0.08768	0.07247	7.30E-04	2.05E-08	1.89E-04	4.68E-04	1.39E-03
402	UCART37	565112.32	4217505.29	565112.32	4217505.29	0.11019	0.16278	0.08413	0.07024	6.98E-04	1.99E-08	1.81E-04	4.53E-04	1.33E-03
403	UCART37	565147.32	4217505.29	565147.32	4217505.29	0.10383	0.15167	0.08034	0.0674	6.58E-04	1.91E-08	1.73E-04	4.35E-04	1.27E-03
404	UCART37	565182.32	4217505.29	565182.32	4217505.29	0.09753	0.1411	0.07669	0.06449	6.18E-04	1.82E-08	1.65E-04	4.16E-04	1.20E-03
405	UCART37	564342.32	4217540.29	564342.32	4217540.29	0.24723	0.45634	0.22696	0.15292	1.57E-03	4.32E-08	4.88E-04	9.87E-04	3.04E-03
406	UCART37	564377.32	4217540.29	564377.32	4217540.29	0.2679	0.62657	0.23683	0.15644	1.70E-03	4.42E-08	5.09E-04	1.01E-03	3.22E-03
407	UCART37	564412.32	4217540.29	564412.32	4217540.29	0.28606	0.95306	0.2402	0.15662	1.81E-03	4.43E-08	5.17E-04	1.01E-03	3.34E-03
408	UCART37	564447.32	4217540.29	564447.32	4217540.29	0.29953	1.73374	0.23637	0.15356	1.90E-03	4.34E-08	5.08E-04	9.91E-04	3.40E-03
409	UCART37	564482.32	4217540.29	564482.32	4217540.29	0.30846	2.99378	0.2299	0.14985	1.95E-03	4.24E-08	4.95E-04	9.67E-04	3.42E-03
410	UCART37	564517.32	4217540.29	564517.32	4217540.29	0.31294	2.16514	0.22099	0.14522	1.98E-03	4.10E-08	4.75E-04	9.37E-04	3.39E-03
411	UCART38	564552.32	4217540.29	564552.32	4217540.29	0.31383	1.49538	0.21174	0.14051	1.99E-03	3.97E-08	4.55E-04	9.07E-04	3.35E-03
412	UCART38	564587.32	4217540.29	564587.32	4217540.29	0.3108	1.11298	0.20208	0.1354	1.97E-03	3.83E-08	4.35E-04	8.74E-04	3.28E-03
413	UCART38	564622.32	4217540.29	564622.32	4217540.29	0.30408	0.86875	0.19189	0.1297	1.93E-03	3.67E-08	4.13E-04	8.37E-04	3.18E-03
414	UCART38	564657.32	4217540.29	564657.32	4217540.29	0.2817	0.69357	0.17826	0.12169	1.78E-03	3.44E-08	3.83E-04	7.85E-04	2.95E-03
415	UCART38	564692.32	4217540.29	564692.32	4217540.29	0.25693	0.54956	0.16674	0.11494	1.63E-03	3.25E-08	3.59E-04	7.42E-04	2.73E-03
416	UCART38	564727.32	4217540.29	564727.32	4217540.29	0.24728	0.47292	0.16045	0.11149	1.57E-03	3.15E-08	3.45E-04	7.19E-04	2.63E-03
417	UCART38	564762.32	4217540.29	564762.32	4217540.29	0.23447	0.41082	0.15331	0.10782	1.49E-03	3.05E-08	3.30E-04	6.96E-04	2.51E-03
418	UCART38	564797.32	4217540.29	564797.32	4217540.29	0.21472	0.35132	0.14277	0.10212	1.36E-03	2.89E-08	3.07E-04	6.59E-04	2.33E-03
419	UCART38	564832.32	4217540.29	564832.32	4217540.29	0.20017	0.30973	0.13405	0.09781	1.27E-03	2.76E-08	2.88E-04	6.31E-04	2.19E-03
420	UCART38	564867.32	4217540.29	564867.32	4217540.29	0.18647	0.2755	0.12498	0.09344	1.18E-03	2.64E-08	2.69E-04	6.03E-04	2.05E-03
421	UCART39	564902.32	4217540.29	564902.32	4217540.29	0.16998	0.2429	0.11424	0.08776	1.08E-03	2.48E-08	2.46E-04	5.66E-04	1.89E-03
422	UCART39	564937.32	4217540.29	564937.32	4217540.29	0.1498	0.21172	0.10349	0.08161	9.49E-04	2.31E-08	2.23E-04	5.27E-04	1.70E-03
423	UCART39	564972.32	4217540.29	564972.32	4217540.29	0.13096	0.18671	0.0947	0.07599	8.30E-04	2.15E-08	2.04E-04	4.90E-04	1.52E-03
424	UCART39	565007.32	4217540.29	565007.32	4217540.29	0.11835	0.16948	0.08852	0.07193	7.50E-04	2.03E-08	1.90E-04	4.64E-04	1.40E-03
425	UCART39	565042.32	4217540.29	565042.32	4217540.29	0.11012	0.15687	0.0839	0.06902	6.98E-04	1.95E-08	1.80E-04	4.45E-04	1.32E-03
426	UCART39	565077.32	4217540.29	565077.32	4217540.29	0.1044	0.14711	0.08016	0.06681	6.61E-04	1.89E-08	1.72E-04	4.31E-04	1.26E-03
427	UCART39	565112.32	4217540.29	565112.32	4217540.29	0.1001	0.13936	0.077	0.06495	6.34E-04	1.84E-08	1.66E-04	4.19E-04	1.22E-03
428	UCART39	565147.32	4217540.29	565147.32	4217540.29	0.09407	0.12991	0.07348	0.06225	5.96E-04	1.76E-08	1.58E-04	4.02E-04	1.16E-03
429	UCART39	565182.32	4217540.29	565182.32	4217540.29	0.08913	0.12213	0.07044	0.05992	5.65E-04	1.69E-08	1.52E-04	3.87E-04	1.10E-03
430	UCART39	564342.32	4217575.29	564342.32	4217575.29	0.22189	0.41274	0.20096	0.13768	1.41E-03	3.89E-08	4.32E-04	8.88E-04	2.73E-03
431	UCART40	564377.32	4217575.29	564377.32	4217575.29	0.23633	0.53803	0.20672	0.13964	1.50E-03	3.95E-08	4.45E-04	9.01E-04	2.84E-03
432	UCART40	564412.32	4217575.29	564412.32	4217575.29	0.24827	0.73146	0.20716	0.13883	1.57E-03	3.92E-08	4.46E-04	8.96E-04	2.91E-03
433	UCART40	564447.32	4217575.29	564447.32	4217575.29	0.25614	0.99332	0.20191	0.13535	1.62E-03	3.83E-08	4.34E-04	8.73E-04	2.93E-03
434	UCART40	564482.32	4217575.29	564482.32	4217575.29	0.26092	1.15035	0.19556	0.13176	1.65E-03	3.72E-08	4.21E-04	8.50E-04	2.92E-03
435	UCART40	564517.32	4217575.29	564517.32	4217575.29	0.26354	1.05236	0.18887	0.12818	1.67E-03	3.62E-08	4.06E-04	8.27E-04	2.90E-03
436	UCART40	564552.32	4217575.29	564552.32	4217575.29	0.26323	0.8729	0.18102	0.12397	1.67E-03	3.50E-08	3.89E-04	8.00E-04	2.86E-03
437	UCART40	564587.32	4217575.29	564587.32	4217575.29	0.26004	0.7162	0.17242	0.11917	1.65E-03	3.37E-08	3.71E-04	7.69E-04	2.79E-03
438	UCART40	564622.32	4217575.29	564622.32	4217575.29	0.25228	0.59444	0.1629	0.11356	1.60E-03	3.21E-08	3.50E-04	7.33E-04	2.68E-03
439	UCART40	564657.32	4217575.29	564657.32	4217575.29	0.22881	0.49949	0.15207	0.10693	1.45E-03	3.02E-08	3.27E-04	6.90E-04	2.47E-03
440	UCART40	564692.32	4217575.29	564692.32	4217575.29	0.20939	0.39552	0.14156	0.10055	1.33E-03	2.84E-08	3.05E-04	6.49E-04	2.28E-03
441	UCART41	564727.32	4217575.29	564727.32	4217575.29	0.20401	0.35156	0.13705	0.09785	1.29E-03	2.77E-08	2.95E-04	6.31E-04	2.22E-03
442	UCART41	564762.32	4217575.29	564762.32	4217575.29	0.1956	0.31338	0.13186	0.09495	1.24E-03	2.68E-08	2.84E-04	6.13E-04	2.14E-03
443	UCART41	564797.32	4217575.29	564797.32	4217575.29	0.18087	0.27331	0.12367	0.0902	1.15E-03	2.55E-08	2.66E-04	5.82E-04	1.99E-03
444	UCART41	564832.32	4217575.29	564832.32	4217575.29	0.16966	0.24448	0.11684	0.08649	1.07E-03	2.44E-08	2.51E-04	5.58E-04	1.88E-03
445	UCART41	564867.32	4217575.29	564867.32	4217575.29	0.15795	0.21791	0.10903	0.08232	1.00E-03	2.33E-08	2.35E-04	5.31E-04	1.77E-03
446	UCART41	564902.32	4217575.29	564902.32	4217575.29	0.14456	0.19311	0.10056	0.07776	9.16E-04	2.20E-08	2.16E-04	5.02E-04	1.63E-03
447	UCART41	564937.32	4217575.29	564937.32	4217575.29	0.12927	0.17133	0.09213	0.07283	8.19E-04	2.06E-08	1.98E-04	4.70E-04	1.49E-03
448	UCART41	564972.32	4217575.29	564972.32	4217575.29	0.11443	0.15337	0.08477	0.06811	7.25E-04	1.93E-08	1.82E-04	4.40E-04	1.35E-03
449	UCART41	565007.32	4217575.29	565007.32	4217575.29	0.10594	0.14262	0.08035	0.06549	6.71E-04	1.85E-08	1.73E-04	4.23E-04	1.27E-03
450	UCART41	565042.32	4217575.29	565042.32	4217575.29	0.10069	0.1352	0.07716	0.06385	6.38E-04	1.80E-08	1.66E-04	4.12E-04	1.22E-03
451	UCART42	565077.32	4217575.29	565077.32	4217575.29	0.09555	0.12766	0.0739	0.06199	6.05E-04	1.75E-08	1.59E-04	4.00E-04	1.16E-03
452	UCART42	565112.32	4217575.29	565112.32	4217575.29	0.09011	0.11969	0.07056	0.05969	5.71E-04	1.69E-08	1.52E-04	3.85E-04	1.11E-03
453	UCART42	565147.32	4217575.29	565147.32	4217575.29	0.0852	0.11237	0.0675	0.05744	5.40E-04	1.62E-08	1.45E-04	3.71E-04	1.06E-03
454	UCART42	565182.32	4217575.29	565182.32	4217575.29	0.08137	0.1066	0.06489	0.05559	5.15E-04	1.57E-08	1.40E-04	3.59E-04	1.01E-03

Risk Summary

	Receptor	Concentration	Risk
Residential Construction			
Sheet Name:	Resi_ConsRisk!	Resi_ConsRisk!	Resi_ConsRisk!
Lookup Range:	E10:E463	E10:E463	E10:E463
Return Range:	A10:A463	O10:O463	AA10:AA463
Worker Construction			
Sheet Name:	Worker_Risk!	Worker_Risk!	Worker_Risk!
Lookup Range:	E9:E462	E9:E462	E9:E462
Return Range:	A9:A462	O9:O462	S9:S462

Residential Exposure

Construction (Unmitigated)

Location	X	Y	X, Y	Rec #	Concentration	Construction Risk	Risk Per Million	Threhold	
Residences to the Southea	564797.32	4217015.29	564797.32, 4217015.29	99	0.032471981	9.94233E-06	9.942333197	1.00E-05	LTS

Worker Exposure

Construction (Unmitigated)

Location	X	Y	X, Y	Rec #	Concentration	Construction Risk	Risk Per Million	Threhold	
Worker to the Northwest	564622.32	4217225.29	564622.32, 4217225.29	227	0.1479751	4.61561E-06	4.61561E+00	1.00E-05	LTS