

APPENDIX B

Air Quality and Greenhouse Gas Report
Coachella Valley Stormwater Channel Improvement Project
Avenue 54 to Thermal Drop Structure
Riverside County, California

January 2018
Revised May 2019

Prepared for

Coachella Valley Water District
75525 Hovley Lane East
Palm Desert, CA 92211

Prepared by

Terra Nova Planning & Research, Inc.
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Palm Desert, CA 92211

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SECTION I. INTRODUCTION & PROJECT DESCRIPTION

A. Introduction

The purpose of this report is to assess the potential air quality impacts associated with the construction and operation of the proposed Coachella Valley Stormwater Channel (CVSC) Improvement Project (“Project”). This report describes the current air quality regulations and provides historical air quality monitoring concentrations and minimization measures to further reduce projected emissions of criteria pollutants and greenhouse gases.

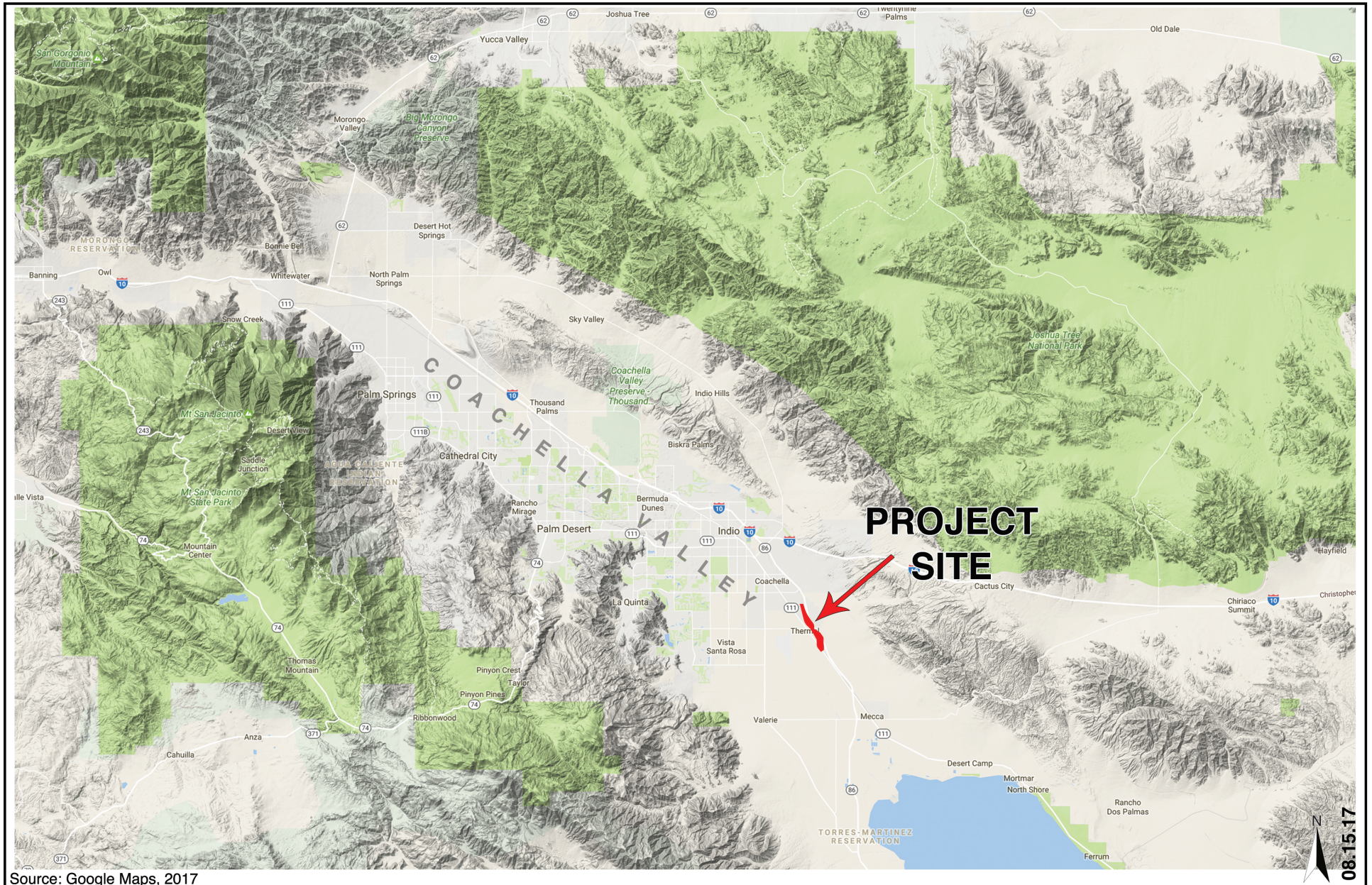
B. Project Description

The project study area is a portion of the engineered extension of the Whitewater River Stormwater Channel (WWRSC). The WWRSC/CVSC functions as a conveyance channel for regional and local flood control, stormwater runoff, agricultural irrigation return water, and treated/recycled wastewater. This project involves the improvement of the CVSC from Ave 54 to the north to the Thermal Drop Structure located between Avenues 57 and 58 to reduce the flood hazard associated with a 100-year event. Improvements to the stormwater channel will include reinforced concrete-lined side slope protection, lowering of the channel invert elevation to increase channel conveyance capacity, and channel lining.

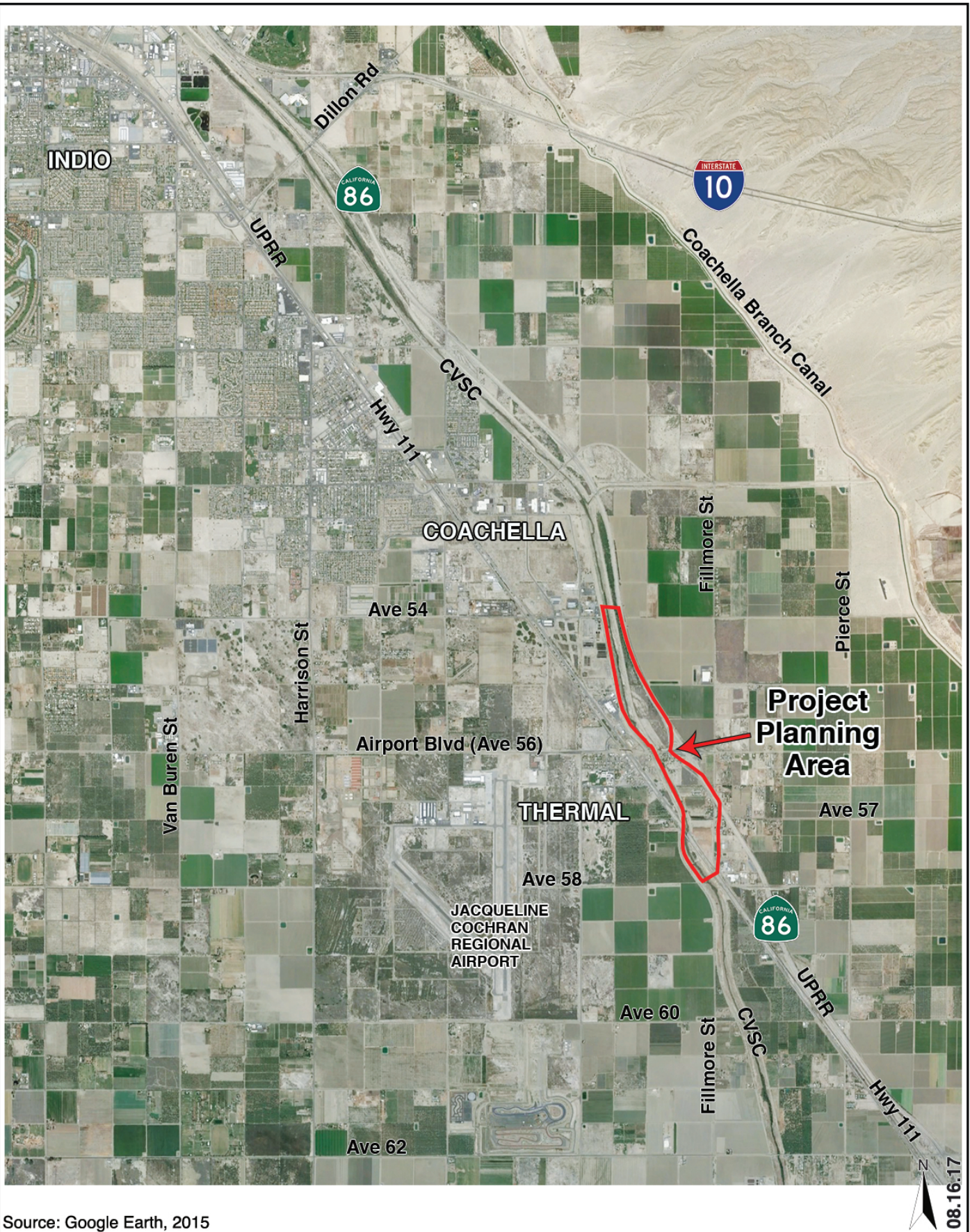
The purpose of the project is to design and construct channel improvements to increase conveyance capacity in the project reach to the 100-Year flow and meet current CVWD design standards for stormwater management facilities. Recent hydraulic studies (NHC 2012) show that the proposed project section of the CVSC is currently insufficient for the 100-year flood control. During major storm events under current channel conditions, floodwaters, silt and other debris could impact a wide area of prime agricultural land, as well as developing communities. The majority of the surrounding development is agricultural but will transition into urban uses as development increases. Increased population density and property values will require the development of infrastructure improvements to adequately protect lives and property.

C. Project Location

The Project extends from approximately 130 feet north of Avenue 54 to approximately 300 feet south of the Thermal Drop Structure, which is located between Avenues 57 and 58. The Project occurs within the City of Coachella corporate limits and in the unincorporated community of Thermal, Riverside County, California. The project area is generally bounded by Avenue 54 on the north, Avenue 58 on the south, State Highway 86 on the east and the community of Thermal on the west. The project occurs in portions of Section 15, 22 and 27 of Township 6 South, Range 8 East, as shown on the United States Geological Survey (USGS) 7.5 minute Indio and Mecca, California quadrangles. Also please see Exhibits 1-1: Regional Location Map, 1-2: Area Location Map, 1-3: Project Vicinity and 1-4: Project Planning Area.



Coachella Valley Stormwater Channel Improvement Project
Avenue 54 to Thermal Drop Structure
Area Location Map
Coachella Valley Water District



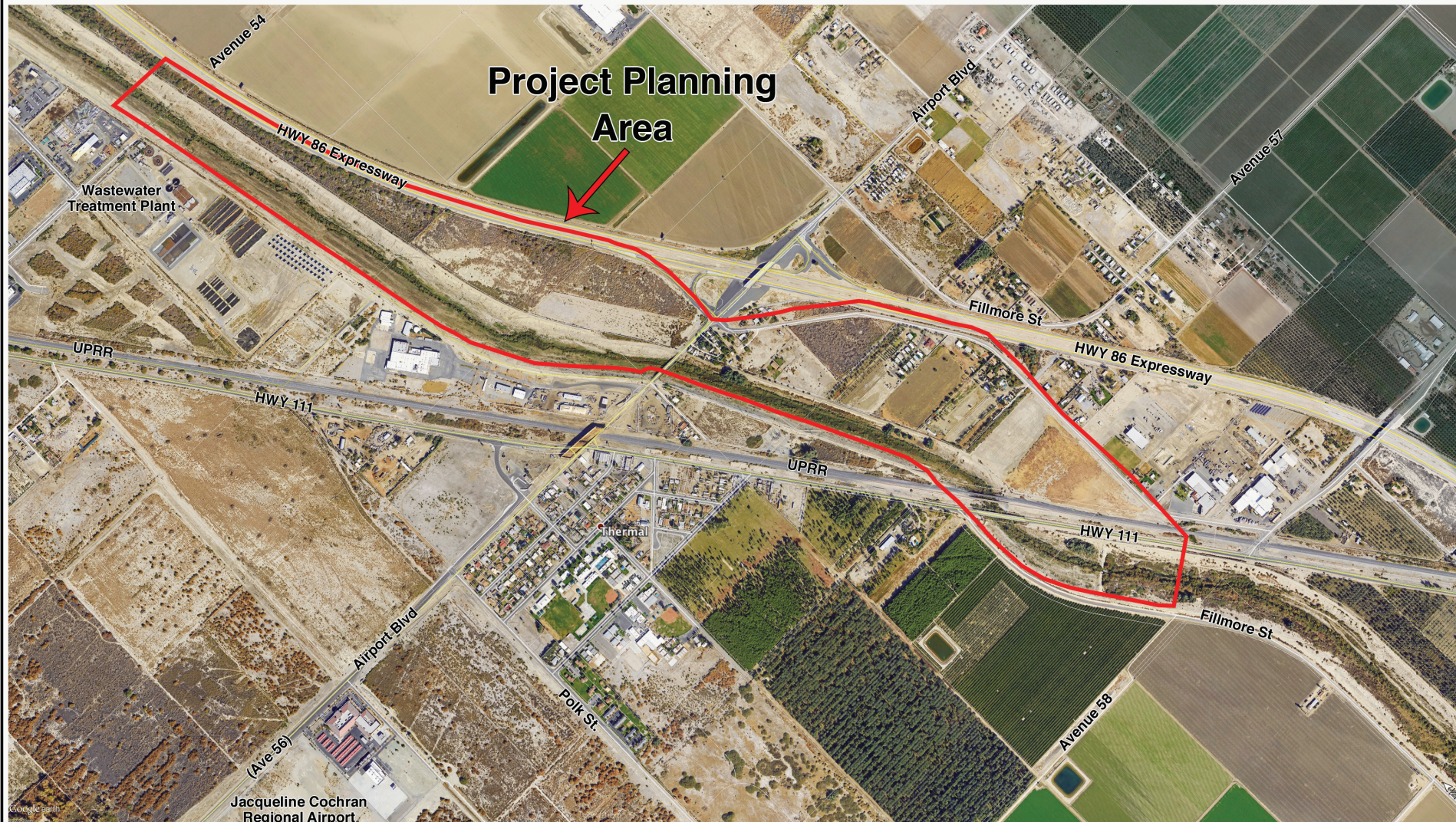
Source: Google Earth, 2015

**Coachella Valley Stormwater Channel Improvement
Avenue 54 to Thermal Drop Structure
Vicinity Map
Coachella Valley Water District**



Exhibit

1-3



Source: Google Earth, 2015



Coachella Valley Stormwater Channel Improvement Project
Avenue 54 to Thermal Drop Structure
Project Planning Area
Coachella Valley Water District



08.16.17

Exhibit

1-4

SECTION II. EXISTING CONDITIONS

Introduction

The project site is located within the Salton Sea Air Basin (SSAB) and is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Air quality in the Salton Sea Air Basin has been impacted by emissions associated with increased development, population growth, and vehicle emissions. Although air pollution is emitted locally from various sources, some of the degradation of air quality within the Salton Sea Air Basin can be attributed to sources tributary to but located outside of the basin. In the project area, air quality is regulated by the SCAQMD, as well as federal and state policy.

A. Climatic Conditions and Air Quality

The proposed CVSC Project is located within the Coachella Valley portion of the SSAB immediately east of the San Jacinto Mountains. Meteorological conditions are largely attributable to the low desert geographic setting and the mountains surrounding the region that isolate the Coachella Valley from moderating coastal influences and create a hot and dry low-lying desert condition. As the desert heats up a large area of thermal low pressure develops, which draws dense, cooler coastal air through the narrow San Geronio Pass and into the valley, generating strong winds that cross the most active fluvial (water-related) erosion zones in the valley. These strong winds sweep up, suspend and transport large quantities of sand and dust, reducing visibility, damaging property, and constituting a significant health threat. The region is also subject to seasonal northeasterly Santa Ana winds that are associated with high pressure parked over Nevada and the four corners region.

The Coachella Valley portion of the SSAB is typical of a low desert climate, with summer temperatures that frequently exceed 110°F and drop into the 20's during winter. The valley floor historically receives an average of four to six inches of rainfall per year with greater precipitation at higher elevations.

Air inversions, where a layer of stagnant air is trapped near the ground and is loaded with pollutants from motor vehicles and other sources, occasionally occur in the Coachella Valley due to local geological and climatic conditions. Inversions create conditions of haziness caused by suspended water vapor, dust, and a variety of chemical aerosols. Due to local climatic conditions, inversion layers generally form 6,000 to 8,000 feet above the desert floor.

Regulating agencies, including SCAQMD, have developed standards and regulations to reduce emissions and enhance air quality throughout the SSAB. These are further described below.

B. Air Quality Management and Regulation

Federal and state agencies have adopted air quality standards for a variety of pollutants. In 1971, the Environmental Protection Agency (EPA) established the National Ambient Air Quality Standards (NAAQS) for managing criteria pollutants. The California Clean Air Act (CCAA) became effective on January 1, 1989 and mandated health-based air quality standards at the state level. The California Air Resources Board (CARB) is responsible for enforcing state standards,

which are generally more stringent than federal standards. One of the ways standards are applied is through State Implementation Plans (SIP), which are prepared to assist regional air quality management districts in meeting the federal and state ambient air quality standards in accordance with the deadlines specified in the federal Clean Air Act (CAA) and emission reduction targets of the California Clean Air Act.

Regional and local agencies have also assumed some responsibility for assuring that state and federal air quality standards are achieved. For the Coachella Valley, including the subject project site, the South Coast Air Quality Management District (SCAQMD) is responsible for establishing air quality measurement criteria and relevant management policies for the SSAB.

The 2003 PM₁₀ Coachella Valley State Implementation Plan (CVSIP) was jointly developed by the SCAQMD, Coachella Valley Association of Governments (CVAG) and its member cities, and was approved by the U.S. EPA. The 2003 PM₁₀ CVSIP updated the 1990 plan, which was drafted as a requirement of the federal Clean Air Act to demonstrate expeditious attainment of PM₁₀ standards.¹ On April 18, 2003, the EPA approved the updated CVSIP.

The SSAB, including the Coachella Valley, is subject to the provisions of the SCAQMD Rule Book,² which sets forth policies and other measures designed to meet federal and state ambient air quality standards. These rules, along with SCAQMD's 2016 Air Quality Management Plan are intended to satisfy the planning requirements of both the federal and state Clean Air Acts. The SCAQMD also monitors daily pollutant levels and meteorological conditions throughout the District. Currently there are three monitoring sites in the Coachella Valley, located in Palm Springs, Indio, and Mecca.

The California Environmental Quality Act (CEQA) also sets forth standards to determine a project's potential to affect air quality. These standards as defined by the California Environmental Quality Act (CEQA) are described below.

Air Quality Significance Thresholds

The following significant thresholds or criteria are not strictly those recommended in § 15064.7 of the CEQA Guidelines, rather they are derived from Appendix G of the Guidelines, and are used to determine if and to what extent a project may have a potentially significant impact on air quality. The project would have a significant effect to air quality if the proposed project would:

- a) Conflict with or obstruct implementation of the applicable air quality plan;
- b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

¹ "2003 Coachella Valley PM₁₀ State Implementation Plan, August 1, 2003, p.ES-1.

² South Coast Air Quality Management District Rules and Regulations, Adopted February 4, 1977.

- d) Expose sensitive receptors to substantial pollutant concentrations; or
- e) Create objectionable odors affecting a substantial number of people.

In addition, the CVSC Project would be considered to have a significant effect on greenhouse gas emissions if it is determined that the project would:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

A significant effect on the environment is defined as a “substantial, or potentially substantial, adverse change to the environment” (California Public Resources Code Section 21068).

C. Air Quality Standards

Federal and state air quality standards established for criteria pollutants are designed to protect the general population and especially that segment of the population that is most susceptible to respiratory distress or infection, including the elderly, children, asthmatics, or those who are weak from disease or illness.

The following air pollutants are collectively known as criteria air pollutants and are defined as those pollutants for which established air quality standards have been adopted by federal and state governments:

Ozone (O₃) is a pungent, colorless, toxic gas, and a component of photochemical smog. It is formed when byproducts of combustion react in the presence of ultraviolet sunlight. This process takes place in the atmosphere where oxides of nitrogen combine with reactive organic gases, such as hydrocarbons. Exposure to ozone can result in diminished breathing capacity, increased sensitivity to infections, and inflammation of the lung tissue. Children and people with pre-existing lung disease are most susceptible to the effects of ozone.

Carbon Monoxide (CO) is a colorless, odorless, toxic gas and a byproduct from the partial combustion of fossil fuels, most notably from automobiles and other motor vehicles. Carbon monoxide passes through the lungs directly into the blood stream and reduces the amount of oxygen reaching the vital organs, such as the heart, brain and tissues. In high concentrations, carbon monoxide can contribute to the development of heart disease, anemia, and impaired psychological behavior. Individuals that have heart and blood diseases, smokers, babies in utero, and people with chronic hypoxemia are most susceptible to the effects of CO. The SSAB is in non-attainment for the federal 8-hour O₃ standard.

Nitrogen Oxide (NO_x) includes Nitric oxide (NO) and Nitrogen dioxide (NO₂), which are the primary oxides of nitrogen, and combined are known as nitrogen oxides. These oxides are produced at high temperatures during combustion as byproducts of motor vehicles, power plants, and off-road equipment. NO_x contributes to the formation of ozone serving as the primary receptor of ultraviolet light and initiating the photochemical reaction. Short-term exposure to nitrogen

dioxide can result in airway constriction, diminished lung capacity, and is highly toxic by inhalation. Populations living near roadways are more likely to experience effects of nitrogen oxides due to elevated exposure to motor vehicle exhaust. The SSAB is in attainment for NO₂.

Sulfur Dioxide (SO₂) results from the combustion of high-sulfur content fuels, such as coal and petroleum. Sources include motor vehicle fuel combustion, chemical manufacturing plants, and sulfur recovery plants. Sulfur dioxide is a colorless, pungent, extremely irritating gas that can cause airway constriction and severe breathing difficulties in asthmatics. High levels of exposure can cause fluid accumulation in the lungs, damage to lung tissue, and sloughing off of cells lining the respiratory tract. The SSAB is in attainment for SO₂.

Particulate Matter (PM₁₀ and PM_{2.5}) consist of fine suspended particles of ten microns or smaller in diameter, and are the byproducts of road dust, sand, diesel soot, windstorms, and the abrasion of tires and brakes. The elderly, children and adults with pre-existing respiratory or cardiovascular disease are most susceptible to the effects of PM. Elevated PM₁₀ and PM_{2.5} levels are also associated with an increase in mortality rates, respiratory infections, occurrences and severity of asthma attacks and hospital admissions. The SSAB is a non-attainment area for PM₁₀ and is classified as attainment/unclassifiable for PM_{2.5}.

Volatile Organic Compounds (VOC) are also known as Reactive Organic Gas (ROG). This class of pollutants has no state or federal ambient air quality standards and is not classified as criteria pollutants; however, they are regulated because they are responsible for contributing to the formation of ozone. They also contribute to higher PM₁₀ levels because they transform into organic aerosols when released into the atmosphere. VOCs pose a health threat when people are exposed to high concentrations. Benzene, for example, is a hydrogen component of VOC emissions known to be a carcinogen.

Lead (Pb) occurs in the atmosphere as particulate matter resulting from the manufacturing of batteries, paint, ink, and ammunition. Exposure to lead can result in anemia, kidney disease, gastrointestinal dysfunction, and neuromuscular and neurological disorders. Babies in utero, infants, and children are especially susceptible to health risks associated with exposure to lead by impacting the central nervous system and cause learning disorders. The SSAB is in attainment for lead.

Table 3 on the following page shows the state and national ambient air quality standards for criteria pollutants.

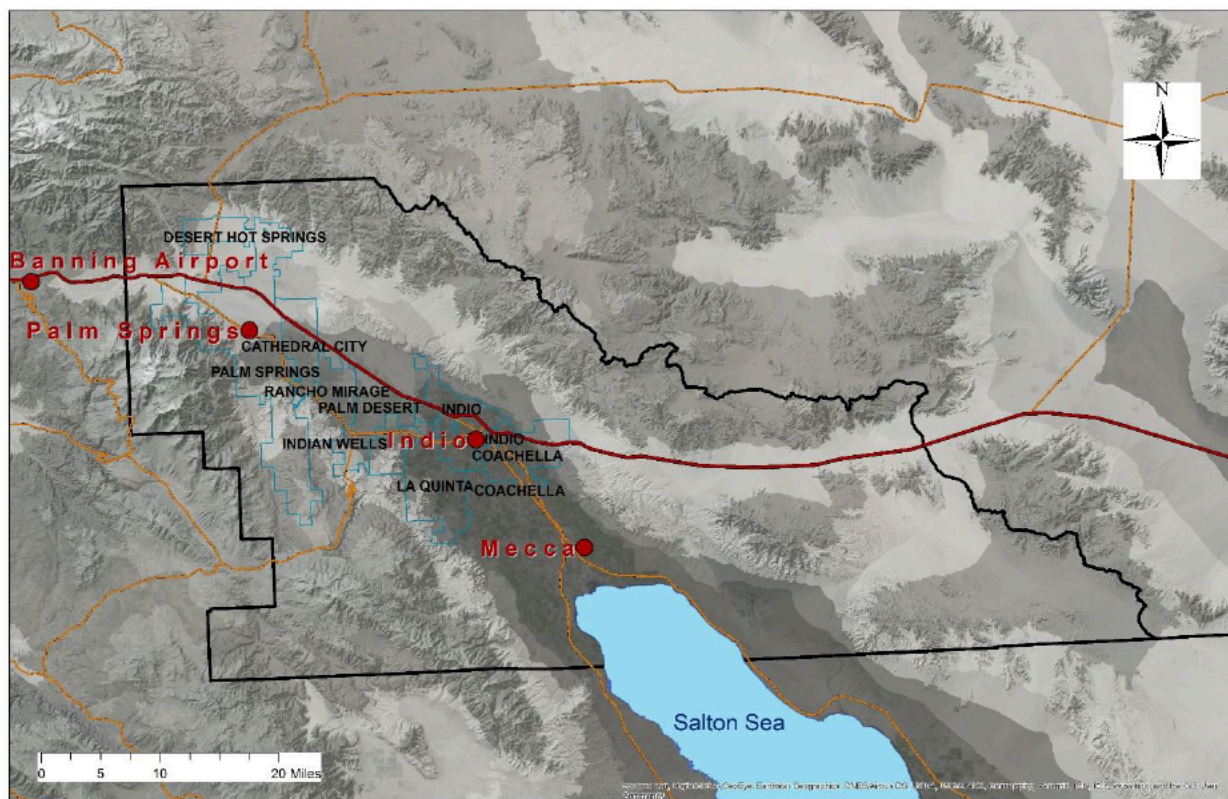
Table 1
State and National Ambient Air Quality Standards

Pollutant	State Standards		National Standards**	
	Averaging Time	Concentration	Averaging Time	Concentration
Ozone (O ₃)	1-hour 8-hour	0.09 ppm 0.07 ppm	1-hour 8-hour	0.070 ppm
Carbon Monoxide (CO)	1-hour 8-hour	20.0 ppm 9.0 ppm	1-hour 8-hour	35.0 ppm 9.0 ppm
Nitrogen Dioxide (NO ₂)	1-hour AAM	0.18 ppm 0.030 ppm	AAM	0.10 ppm* 0.053 ppm
Sulfur Dioxide (SO ₂)	1-hour 24-hour	0.25 ppm 0.04 ppm	1 & 24 hour AAM	.075ppm**
Particulate Matter (PM ₁₀)	24-hour AAM	50 µg/m ³ 20 µg/m ³	24-hour AAM	150 µg/m ³
Particulate Matter (PM _{2.5})	AAM 24-hour	12 µg/m ³ 35 µg/m ³	AAM 24-hour	12 µg/m ³ 35 µg/m ³
Lead	30 day Avg.	1.5 µg/m ³	3 month Avg.	0.15 µg/m ³
Visibility Reducing Particles	8-hour	No standard	No federal Standard	No federal Standard
Sulfates	24-hour	25µg/m ³	No federal Standard	No federal Standard
Hydrogen Sulfide	1-hour	0.03 ppm	No federal Standard	No federal Standard
Vinyl Chloride	24-hour	0.01 ppm	No federal Standard	No federal Standard
Source: California Air Resources Board, 05/04/16. Notes: ppm = parts per million; ppb= parts per billion; µg/ m ³ = micrograms per cubic meter of air; AAM = Annual Arithmetic Mean; * Note that this standard became effective as of January 22,2010. ** Final rule signed June 2, 2010, effective as of August 23,2010				

The air quality of a particular locale is considered to be in attainment if the measured ambient air pollutant levels for O₃, CO, SO₂ (1-hour and 24-hour), NO₂, and PM₁₀ and PM_{2.5} are not exceeded and all other standards are not equaled or exceeded at any time in any consecutive three-year period. Attainment also assumes the national standards (other than O₃, PM₁₀, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The O₃ standard is in attainment when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Refer to Table 1 above for attainment standards.

D. Regional Air Quality Monitoring

The South Coast Air Quality Management District operates and maintains three air quality monitoring stations within Source Receptor Area (SRA) 30 (Coachella Valley). SR 30 includes the Indio, Palm Springs and Mecca monitoring stations, which have been operational since 1985, 1987, and 2013, respectively. Both Indio and Palm Springs stations monitor for ozone, PM₁₀ and PM_{2.5}. The Mecca station monitors for PM₁₀. The map below shows the locations of the three monitoring stations in the Coachella Valley.



The following tables (Tables 2 through 4) show the maximum concentration and number of days annual that state and federal standards for ozone and particulate matter (PM₁₀ and PM_{2.5}) were exceeded between 2000 and 2016 in the Coachella Valley.

Table 2 shows that the federal 24-hour standard for PM₁₀ was exceeded more frequently at the Indio station between 2010 and 2016. Limited 24-hour state data has been provided from all three stations the past several years, however it is assumed that PM₁₀ levels continue to exceed state standards until otherwise reported.

Table 2
PM₁₀ Monitoring Data for the Coachella Valley

Monitoring Station	Year	Maximum Concentration (µg/m ³ /24hours) **	No. Days Exceeding 24-hr. Standards		Annual Average (µg/m ³)
			Federal ¹	State ²	AAM ³
Palm Springs	2010	144.8	0.0	0.0	19.4
	2011	396.9	2.0	0.0	21.7
	2012	143.4	0.0	0.0	19.9
	2013	185.8	1.0	13.1	23.1
	2014	313.8	1.1	*	25.4
	2015	199.0	1.0	*	20.9
	2016	447.2	1.1	*	23.1
Indio	2010	107.0	0.0	23.9	28.8
	2011	375.9	2.0	18.6	32.6
	2012	270.6	N/A	43.2	33.6
	2013	255.2	3.0	85.2	37.5
	2014	322.3	6.1	94.9	43.5
	2015	381.0	*	*	44.0
	2016	393.2	*	*	37.0
Mecca	2014	*	*	*	*
	2015	306.4	5.0	*	44.2
	2016	468.9	*	*	41.1
Source: Annual air quality site monitoring reports per ARB. http://www.arb.ca.gov/adam/ Accessed January 2018. 1 = > 150 µg/m ³ in 24 hour period; 2 = > 50 µg/m ³ in 24 hour period; 3 Federal Annual Average Standard AAM > 50µg/m ³ revoked December 17, 2006. State standard is AAM > 20µg/m ³ 4 State Annual Average Standard = AGM > 20µg/m ³ * There are insufficient (or no) data available to determine the value. ** Data may include exceptional events.					

Table 3 shows that both the federal 24 hour PM_{2.5} standard and the AAM state standard of >12 µg/m³ have not been exceeded at either monitoring station from 2010 to 2016.

Table 3
PM_{2.5} Monitoring Data for the Coachella Valley

Monitoring Station	Year	Max Concentration (µg/m ³ /24hours)	No. Days Exceeding 24-hr. Standards Federal ^a	Annual Average (µg/m ³) AAM ^{b, c}
Palm Springs	2010	12.8	0.0	5.9
	2011	26.3	0.0	6.0
	2012	15.5	0.0	6.5
	2013	18.5	0.0	6.5
	2014	15.5	**	**
	2015	22.7	**	**
	2016	14.7	0	5.4
Indio	2010	16.0	0.0	6.8
	2011	35.4	0.0	7.2
	2012	18.4	0.0	7.6
	2013	25.8	0.0	8.3
	2014	18.3	**	**
	2015	24.6	**	**
	2016	25.8	0	7.6

Source: Annual air quality site monitoring reports, prepared by ARB. <http://www.arb.ca.gov/adam/> Accessed January 2018.

a = > 35 µg/m³ in 24 hour period, Federal standard as of December 17, 2006.

b Federal Annual Average Standard = AAM > 15µg/m³

c State Annual Average Standard = AAM > 12µg/m³ as of July 5, 2003.

* Less than 12 full months of data; may not be representative.

** There was insufficient (or no) data available to determine the value.

Table 4 shows that the Palm Springs monitoring station exceeds the 8 hour federal and state ozone standards more frequently than the Indio site. This exceedance is attributable to the Palm Springs station's location closer to the San Gorgonio Pass where ozone is imported into the SSAB from air basins to the west.

Table 4
Ozone Monitoring Data for the Coachella Valley

Monitoring Station	Year	Max. Concentration		No. Days Standard Exceeded		
		1 Hour ppm	8 Hour ppm	Federal ¹	State ²	
				8 Hour	1 Hour	8 Hour
Palm Springs	2010	0.114	0.099	52	20	78
	2011	0.124	0.099	49	21	69
	2012	0.126	0.101	51	17	79
	2013	0.113	0.104	46	10	82
	2014	0.108	0.093	55	9	61
	2015	0.102	0.092	47	3	51
	2016	0.103	0.092	46	6	48
Indio	2010	0.100	0.087	19	6	45
	2011	0.099	0.090	19	3	42
	2012	0.102	0.089	24	2	45
	2013	0.105	0.087	18	2	38
	2014	0.095	0.091	24	2	30
	2015	0.093	0.085	11	0	12
	2016	0.099	0.089	27	3	29
Source: ARB Annual Air Quality Data Tables. http://www.arb.ca.gov/adam/ Accessed January 2018.						
1 = > 0.070 parts per million for the 8 hour standard.						
2 = > 0.09 and 0.070 parts per million in 1 hour and 8 hour respectively.						

Criteria Air Pollutants Summary

Air quality in the Salton Sea Air Basin exceeds state and federal standards for fugitive dust (PM₁₀) and ozone (O₃), and is in attainment/unclassified for PM_{2.5}. Ambient air quality in the SSAB, including the project site, does not exceed state and federal standards for carbon monoxide, nitrogen dioxides, sulfur dioxide, lead, sulfates, hydrogen sulfide, or Vinyl Chloride. The following table shows the basin's federal and state attainment status for criteria pollutants.

Table 5
Salton Sea Air Basin Designation Status

Criteria Pollutants	Federal Designation	State Designation
Ozone - 8 hour standard	Severe 15- Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
PM ₁₀	Serious-Nonattainment	Nonattainment
PM _{2.5}	Unclassified/Attainment	Unclassified/Attainment
Source: CARB Air Quality Planning Branch, June 2013. This information has been cross-checked with the U.S. EPA Green Book in January 2018, last updated October 18, 2017.		

E. Regional Pollutants of Concern

Local air quality conditions are determined by climate, geography, and regional activities, including grading, construction and vehicular traffic, as well as heating, cooling, and ventilation equipment. The criteria pollutants of concern in the project area and the Coachella Valley are ozone (O₃), and particulate matter (PM₁₀, and PM_{2.5}). These are further described below:

PM₁₀ Emissions

Historically, PM₁₀ levels in the Coachella Valley are elevated due to fugitive dust emissions from grading and construction activities, agricultural practices, and strong wind. The finer materials, including sand and silt, can be picked up and transported by the wind and are referred to as “blowsand”. PM₁₀ particles associated with blowsand are of two types: (1) natural PM₁₀ produced by direct particle erosion and fragmentation, and (2) secondary PM₁₀ whereby sand deposited on roadways is further pulverized by motor vehicles and then re-suspended in the air by those vehicles. The project is located in a PM₁₀ non-attainment area for the state and federal PM₁₀ standard.

The Coachella Valley had become eligible for redesignation as attainment due to the annual average PM₁₀ concentrations meeting the revoked federal standard. On February 25, 2010 the California Air Resources Board approved the Coachella Valley PM₁₀ Redesignation Request and Maintenance Plan from serious non-attainment to attainment for the PM₁₀ National Ambient Air Quality Standard under CAA Section 107. The PM₁₀ data from the Coachella Valley monitors shows attainment of the PM₁₀ 24-hour NAAQS after the removal of the flagged high-wind exceptional events, for which SCAQMD supporting documentation will be submitted and subsequent U.S. EPA approval will be required. However, U.S. EPA has requested that SCAQMD conduct additional ambient monitoring in the southeastern portion of the Coachella Valley before the redesignation can be considered. This new station has been in operation since 2013 in the community of Mecca, and redesignation will be revisited upon analysis of the required 3 full years of data. As of December 31, 2017 the Environmental Protection Agency has not re-designated the PM₁₀ classification for the Coachella Valley³. The Coachella Valley continues to exceed the state standard and is in a serious non-attainment area for PM₁₀.

SCAQMD employs measures to reduce particulate matter in the District, sets forth new measures that could further reduce particulate matter, and lists those new measures that need further evaluation prior to implementation. In addition, applicable state code and AQMD Rules, including Rule 403 (Fugitive Dust), enforce fugitive dust compliance for all activities within the SSAB.

Ozone Emissions

Under the Federal Clean Air Act, the Coachella Valley portion of the SSAB is classified as a “severe-15” O₃ non-attainment area for the 8-hour state standard, which means that the region must come into compliance with Federal ozone standards by December 31, 2027. With future emission controls, the Coachella Valley will achieve the 2008 8-hour federal O₃ standard by 2024.

³ “EPA Green Book Designated Non-attainment Areas for All Criteria Pollutants,” as of December 2017. Accessed January 2018

SCAQMD studies indicate that most O₃ is transported to the Salton Sea Air Basin from the upwind South Coast Air Basin (SCAB). It is difficult to quantify the amount of ozone contributed from SCAB; however, reduced O₃ concentration in the SSAB depends, in part, upon reduced ozone emissions in the South Coast Air Basin.

F. Climate Change and Greenhouse Gasses

Air pollution is a chemical, physical or biological process that modifies the chemistry and other characteristics of the atmosphere. The primary contributor to air pollution is the burning of fossil fuels used in transportation, power and heat generation, and industrial processes. The byproducts from the combustion of fossil fuels can contain a number air polluting substances. These emissions are responsible for the poor air quality that is evident in industrial centers worldwide.

Some air polluting agents are also greenhouse gases (GHG) such as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated gases (hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride), which are released into the atmosphere through natural processes and human activities. These gases are termed greenhouse gases due to their shared characteristic of trapping heat, and are believed to be responsible for the global average increase in surface temperatures of 0.7-1.5 °F that were observed during the 20th century.⁴ The quantity of greenhouse gases in the atmosphere has increased significantly over a relatively short period. More recently, the concentration of CO₂ in the atmosphere had increased by 42%, methane by 15%, and NO_x by 9% from 1990 to 2010.⁵

Carbon dioxide is the primary greenhouse gas that has raised the most concern of atmospheric scientists due to current atmospheric levels, current and projected emission levels, and the highly correlated temperature regression curve that has been observed, predicting a future path of rising carbon dioxide levels. Currently (2015), carbon dioxide concentrations in the atmosphere are around 400 ppm. Comparatively, prior to the Industrial Revolution, about 250 years ago, CO₂ levels were 278 ppm, and over the past 650,000 years carbon dioxide levels have fluctuated between 180 and 300 ppm, making present day atmospheric CO₂ levels substantially greater than at any point in the past 650,000 years.⁶

California is the second largest greenhouse gas contributor in the U.S. and the sixteenth largest in the world. In 2004, California produced 492 million metric tons of CO₂ equivalent (MMTCO₂e), which was approximately 7% of all U.S. emissions. However, in 2015, California's total emissions were 440.4 MMTCO₂e, representing an overall decrease of 10% since peak levels in 2004. During the 2000 to 2015 period, per capita GHG emissions in California continued to drop from a peak in 2001 of 14.0 tons per person to 11.3 tons per person in 2015, a 19% decrease.⁷ This decrease may be due to increases in the effectiveness of energy conservation in buildings (Title 24 requirements) and the increased use of renewable energy, including solar generation, hydropower, and wind energy.

⁴ U.S. Environmental Protection Agency, State of Knowledge.

⁵ U.S. Environmental Protection Agency, Figure 1: Global Greenhouse Gas Emissions by Gas, 1990-2010, May 2014. <http://www.epa.gov/climatechange/science/recentac.html>

⁶ "Working Group III Contribution to the Intergovernmental Panel on Climate Change Fourth Assessment Report, Climate Change 2007: Mitigation of Climate Change," prepared by the Intergovernmental Panel on Climate Change, May 2007.

⁷ "California Greenhouse Gas Emission Inventory: 2000-2015," California Environmental Protection Agency Air Resources Board, June 6, 2017.

The transportation sector remains the largest source of GHG emissions in the state, accounting for 37% of California's emissions in 2015. Regulations and improved fuel efficiency of the state's vehicle fleet will drive down emissions over time, but population growth, lower fuel prices, improved economic conditions and higher employment rates are potential factors that may increase fuel use.⁸

There is much debate over what the effects of climate change will be, but there is a general consensus that the levels of emissions need to be reduced in order to minimize GHG emissions and limit the amount of carbon dioxide and other pollutants that are released into the atmosphere.

Climate Change Regulation

California was the first state to establish regulations that require the reduction of emissions of GHGs from motor vehicles. On September 24, 2004, the California Air Resources Board adopted a bill that requires all motor vehicles of 2009 vintage or later to reduce their greenhouse gas emissions by about 30% by the year 2016. On June 1, 2005 Governor Arnold Schwarzenegger issued executive order S-3-05, which calls for reduction in GHG emission to 1990 levels by 2020 and for an 80 percent reduction below 1990 levels by 2050.

The California Global Warming Solutions Act (AB 32) was adopted by the state legislature in 2006. It sets forth a program to achieve 1990 emission levels by 2020 and requires CARB to proclaim 1990 GHG emissions and develop a Scoping Plan, which sets forth GHG reduction methods. CARB has reported that 1990 GHG emissions totaled 427 million metric tons (MMT) for the state of California; CARB adopted a GHG scoping plan on December 11, 2008. The Scoping Plan includes a cap and trade program, green building strategies, recycling and waste reduction, and Voluntary Early Actions and Reductions.

More recently, Executive Order B-30-15 was issued by Governor Brown on April 29, 2015 establishing a new California goal to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030 ensuring the state will continue its efforts to reduce carbon pollution. Most recently, this 40% target was codified through Senate Bill 32 (2016), which adds section 38566 to the Health and Safety Code and requires that CARB ensure statewide GHG emissions meet the 40% reduction target no later than Dec. 31, 2030.

California SB 375 was signed by the Governor in September 2008 and is intended to at least in part implement greenhouse gas reduction targets set forth in AB 32 by setting regional "caps" on the GHGs emitted by the transportation sector. The bill encourages regional land use planning to reduce vehicle miles traveled and requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy as part of their Regional Transportation Plans. The applicable MPO for the Coachella Valley is the Southern California Association of Governments ("SCAG"), which adopted its most recent Regional Transportation Plan and sustainable communities strategy in April of 2016. The current reduction targets from SCAG's RTP and SCS are 9% reduction by 2020 and a 16% reduction by 2035, as compared to 2005 emissions levels.

⁸ Ibid.

Climate Action Plans

The proposed project is located within unincorporated Riverside County. The County of Riverside currently has a Draft Climate Action Plan (CAP) undergoing public review and comment. The CAP established goals and policies that incorporate environmental responsibility into its daily management of residential, commercial and industrial growth, education, energy and water use, air quality, transportation, waste reduction, economic development and open space and natural habitats to further their commitment towards reducing GHG emissions.

Riverside County has set a goal in accordance with AB 32 to reduce emissions back to 1990 levels by the year 2020. This target was calculated as a 15% decrease from 2008 levels, as recommended in the AB 32 Scoping Plan. The estimated community-wide emissions for the year 2020, based on population and housing growth projections associated with the assumptions used in the proposed General Plan Update, are 12,129,497 MT CO₂e. In order to reach the reduction target, Riverside County must offset this growth in emissions and reduce community-wide emissions to 5,960,998 MT CO₂e by the year 2020.

In order to reach the reduction target, the County of Riverside would need to implement various state policies and the additional local reduction measures described in the County's proposed CAP. These measures encourage energy efficiency and renewable energy in buildings, transit oriented planning, water conservation and increase waste diversion.

Greenhouse Gasses Analyzed

For the purpose of this analysis the emission of the following greenhouse gases are evaluated: carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O).

Carbon Dioxide (CO₂): is an odorless and colorless gas that is emitted from natural sources such as the decomposition of dead organic matter, respiration of bacteria, plants, animals and fungus, evaporation from oceans, and volcanic out gassing. Manmade sources of CO₂ include the combustion of coal, oil, natural gas, and wood. Carbon dioxide is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks.

Methane (CH₄): is released naturally as part of biological processes such as in low oxygen environments like swamplands, bogs, or in rice production (at the roots of the plants) and in cattle raising. Mining of coal, the combustion of fossil fuels and biomass burning also generate methane emissions. Methane is a more efficient absorber of radiation compared to CO₂, however its atmospheric concentration is less than carbon dioxide.

Nitrous Oxide (N₂O): is more commonly known as laughing gas and is a colorless greenhouse gas that in small doses can cause dizziness, euphoria, and sometimes slight hallucinations.

Chlorofluorocarbons (CFCs): CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C₂H₆) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source, but were first synthesized in 1928. It was used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to

destroy stratospheric ozone, a global effort to halt their production was undertaken and in 1989 the European Community agreed to ban CFCs by 2000 and subsequent treaties banned CFCs worldwide by 2010. This effort was extremely successful, and the levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons (HFCs): HFCs are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a ($\text{CF}_3\text{CH}_2\text{F}$), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant. Concentrations of HFC-23 and HFC-134a in the atmosphere are now about 10 parts per trillion (ppt) each. Concentrations of HFC-152a are about 1 ppt. HFCs are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons (PFCs): PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). Concentrations of CF_4 in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

Sulfur Hexafluoride (SF_6): SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

SECTION III. PROPOSED PROJECT IMPACTS

Buildout of the CVSC Project will result in the direct and indirect generation and emission of air pollutants during project construction. After buildout, ongoing (operational) emissions will be limited to area pollutants, such as pavement off gassing from portions of the channel requiring concrete lining. There will be no new operational maintenance emissions. CVWD will continue existing maintenance activities along the proposed portion of the channel, including scheduled vegetation clearing and other channel maintenance services.

The following discussion describes the major sources of air pollutants associated with the development of CVSC Project, and emission projections for criteria account for haul trips if it is assumed there is a net balance of cut and fill materials onsite.

A. Construction Emissions

Construction Disturbance and Paving Assumptions

The Proposed Project length is approximately two miles and will involve extensive grading along this entire reach, the removal of the drop structure, soil over-excavation and re-compaction, importing aggregate base, rebar and concrete. The Proposed Project would result in a total project area of 116± acres of possible disturbance.

Due to the excess cut associated with the project, construction will require a large number of hauling trips to export channel materials and to import concrete, steel and other construction materials. It is estimated that the proposed project will require 54,000 cubic yards of concrete (import), 26,000 cubic yards of aggregate base, 4,500 tons of reinforcing steel (import), and result in an export of 370,000 cubic yards of surplus soil. It is assumed that each haul round trip will be approximately 6-10 miles⁹ based upon an average haul load of 20 tons (or 16 cubic yards)¹⁰.

The following table provides unmitigated construction-related air quality impacts for project buildout.

⁹ Soil will be exported to CVWD WWRP-4 (3.5 miles from project site), concrete will be from Desert Redi-Mix (3.8 miles from project site), and the reinforced steel will be from Sepulveda Building Materials (5.5 miles from project site).

¹⁰ The air emission modeling software, CalEEMod, assumes each haul load is approximately 20 tons. This assumption is programmed into the model.

Table 6
Unmitigated Construction Emissions Summary
Maximum Daily Emissions

(lbs./day)						
Year	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
Max. Daily Emissions	239.29	369.20	33.51	0.53	20.57	15.87
SCAQMD Threshold*	550.00	100.00	75.00	150.00	150.00	55.00
Exceeds Threshold	No	Yes	No	No	No	No
Source: CalEEMod Version 2016.3.2. See Appendix A for detailed tables. Value shown represents the average unmitigated emissions from summer and winter.						
* Source: "SCAQMD Air Quality Significance Thresholds" prepared by South Coast Air Quality Management District, March 2015.						

As shown in the table above, SCAQMD daily thresholds for CO, ROG, SO_x, PM₁₀ and PM_{2.5} will not be exceeded during construction of any phase of project development. However, NO_x emissions have the potential to exceed SCAQMD thresholds due to simultaneous use of construction equipment and material hauling. To reduce NO_x emissions and overall project impacts, mitigation measures AQ-1 and AQ-2 are provided in Section 3.4.6. Results of the implementation of these measures and mitigated conditions are provided in section 3.4.7 below. To reduce NO_x emissions and overall project impacts to less than significant levels, the following mitigation measures were applied:

- AQ-1 To reduce particulate matter and NO_x emissions construction equipment shall utilize aqueous diesel fuels, diesel particulate filters and diesel oxidation catalyst with a minimum 30% reduction rating during all construction activities.
- AQ-2 SCAQMD Rule 403 (403.1 specific to the Coachella Valley): A Dust Control Plan shall be prepared and implemented by all contractors during all construction activities, including ground disturbance, grubbing, grading, and materials import and export. Said plan shall include but not be limited to the following best management practices:
- Treated and stabilized soil where activity will cease for at least four consecutive days;
 - All construction grading operations and earth moving operations shall cease when winds exceed 25 miles per hour;
 - Water site and equipment morning and evening and during all earth-moving operations;
 - Operate street-sweepers on impacted paved roads adjacent to site;
 - Establish and strictly enforce limits of grading for each phase of construction;
 - Wash off trucks as they leave the project site to control fugitive dust emissions
 - Cover all transported loads of soils, wet materials prior to transport, provide freeboard (space from the top of the material to the top of the truck) to reduce PM₁₀ and deposition of particulate matter during transportation
 - Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic.

AQ-3 To reduce NOx emissions, construction equipment shall be equipped with Tier 4 engines.

As shown in the table below, adherence to the above mitigation measures would reduce NOx emissions below SCAQMD thresholds. Construction emissions will be further minimized through best management practices, proper maintenance of construction equipment, and other recommendations set forth in the *Air Quality and Greenhouse Gas Report* that limit the project's contribution to air pollutant emissions during construction. Therefore, impacts from criteria pollutants during construction of the Project will be less than significant.

Table 7
Mitigated Construction Emissions Summary
Maximum Daily Emissions

(lbs./day)						
Year	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
Max. Daily Emissions	274.40	98.21	12.27	0.53	9.51	4.29
SCAQMD Threshold*	550.00	100.00	75.00	150.00	150.00	55.00
Exceeds Threshold	No	No	No	No	No	No
Source: CalEEMod Version 2016.3.2. See Appendix A for detailed tables. Value shown represents the average mitigated emissions from summer and winter.						
* Source: "SCAQMD Air Quality Significance Thresholds" prepared by South Coast Air Quality Management District, March 2015.						

Localized Construction-Related Significance Thresholds and Emissions

The purpose of analyzing Localized Significance Thresholds (LST) is to determine whether a project may generate significant adverse localized air quality impacts in relation to the nearest exposed individual, or sensitive receptor. Land uses that are air quality sensitive receptors include, but are not limited to, schools, churches, residences, hospitals, day care facilities, and elderly care facilities. Sensitive receptors in proximity to the Proposed Project include single-family homes and mobile homes. Neither schools nor parks or other public open space are expected to be impacted by the Proposed Project.

Use of LSTs by a local government is voluntary and are designed for projects that are less than or equal to five acres. The maximum area of disturbance associated with buildout of the Proposed Project is approximately 116± acres and it is assumed that buildout would occur over the course of one year. Although the total project area is greater than five-acres, the area of daily disturbance (for purposes of LST analysis only) is limited to five acres or less per day at any given location.¹¹

¹¹ The equipment specific grading rates are based on the SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds guidance document. Per SCAQMD's guidance, the identified equipment is used to determine the maximum daily soil disturbance area for the purposes of evaluating localized construction impacts and is not an exhaustive list of all equipment that would be used during project construction. Additionally, the acreage identified in this table is used for the purposes of identifying a conservative Localized Significance Threshold (i.e., smaller disturbed areas have lower Localized Significance Thresholds) and does not represent a daily limit on the grading allowed on the site. In summary, then, the LST methodology focuses on the equipment that may be operated and acreage that may be disturbed in areas immediate proximate to potential sensitive receptors, even if other equipment may be operated or other acreage may be disturbed in areas that are farther away from the sensitive receptor.

As such, the five-acre look up table is appropriate under the SCAQMD's methodology to screen for potential localized air quality impacts.¹²

The Mass Rate Look-Up tables for LSTs were used to determine if the Proposed Project would have the potential to generate significant adverse localized air quality impacts during construction. The LST for Source Receptor Area (SRA) 30 (Coachella Valley) was used to determine LST emission thresholds. The distance from the emission source and the maximum daily site disturbance also determines emission thresholds. For analysis purposes, the worst-case scenario of a sensitive receptor being within 25 meters was used and is representative of the residential development in proximity of the planning area.

Results show that LST thresholds are not expected to be exceeded for any of the four criteria pollutants, below. Therefore, impacts to sensitive receptors will be less than significant.

Table 8
Unmitigated Localized Significance Thresholds
25 Meters, 5 Acres

(lbs per day)				
	CO	NO_x	PM₁₀	PM_{2.5}
Max. Onsite Emissions ¹	123.06	174.87	8.72	7.52
LST	2,292	304	14	8
Exceed?	No	No	No	No
Source: CalEEMod Version 2016.3.2. See Appendix A. Emissions show the highest emitting day for all emissions generated onsite during construction.				
1. Maximum onsite emissions occur during the grading period in 2020.				

Potential Odors

The Proposed Project is not expected to generate significant objectionable odors during any phase of construction. The Proposed Project has the potential to result in short-term odors associated with excavation and grading, pouring of concrete and other construction activities. However, construction-related odors would be quickly dispersed below detectable levels and as distance from the construction area increases. Therefore, impacts from objectionable odors are expected to be less than significant. There will be no maintenance-related impacts associated with objectionable odors.

B. Operational Emissions

CalEEMod generates operational air pollutant emissions from three emission source categories: Energy, Mobile, and Area sources. Energy sources refer to direct and indirect use of fossil fuels for energy use, including natural gas and electricity usage in buildings, lighting for parking structures, ventilation, and operation of elevators. Mobile sources refer to emissions associated with motor vehicle trips generated by specific land uses. Area sources refer to consumable products such as landscaping, building maintenance and cleaning supplies, kitchen and restroom supplies, pavement off-gassing, and periodic reapplication of architectural coatings.

¹² South Coast AQMD, "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds."

Operational Emissions of Criteria Pollutants

There will be no new operational impacts associated with the Proposed Project. Existing on-going channel maintenance, including periodic vegetation removal and other CVWD channel maintenance services, will continue after project completion. There will be no impacts.

C. Greenhouse Gas Emissions

Construction of the Proposed Project is anticipated to occur over a one-year period starting in 2020 with buildout in 2021. Construction activities will include construction staging, staging area and channel access grading, incremental channel earthwork, material hauling, pouring of concrete and final channel grading. Construction-related GHG emissions are temporary and end once construction is complete. However, GHG emissions from construction will be amortized over a 30-year period and added to operational emissions to be compared to the applicable GHG threshold per SCAQMD recommendation¹³.

Construction Related Greenhouse Gas Emissions

Construction activities will result in short-term GHG emissions associated with operation of construction equipment, employee commute, material hauling, and other ground disturbing activities. There are currently no construction-related GHG emission thresholds for projects of this nature. To determine if construction emissions will result in a cumulative considerable impact, buildout GHG emissions were amortized over a 30-year period and added to annual operational emissions to be compared to applicable GHG thresholds.

GHG emissions from channel construction are temporary and will not substantially affect climate or interfere with a GHG reduction plan. All components of construction, including equipment, fuels, materials, and management practices, will be subject to current regulations of GHGs. The following table summarizes the estimated GHG emissions from construction of the Proposed Project.

Table 9
Construction GHG Emissions Summary
(Metric Tons/Year)

	CO ₂	CH ₄	N ₂ O	Total CO ₂ e
Buildout	4,088.72	1.07	0.00	4,115.53
Source: CalEEMod Versions 2016.3.2. See Appendix A for detailed tables. Values shown represent the total unmitigated GHG emission projections for construction of the proposed project. CO ₂ e includes the remaining GHG pollutants, such as hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride.				

¹³ "Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans," SCAQMD, December 5, 2008.

Operational Greenhouse Gas Emissions

There are five emission source categories that contribute either directly or indirectly to operational GHG emissions, including energy/electricity usage, water usage, solid waste disposal, area emissions (pavement and architectural coating off-gassing), and mobile sources. CVWD currently provides maintenance services to the proposed section of the channel, include vegetation removal/maintenance and other facility services. The Proposed project will not require additional operational or maintenance services. therefore, impacts will be limited to area emissions and the amortized construction emissions.

On December 5, 2008, the SCAQMD formally adopted a greenhouse gas significance threshold of 10,000 MTCO₂e/year that only applies to stationary sources (industrial uses) where SCAQMD is the lead agency (SCAQMD Resolution No. 08-35). This threshold was adopted based upon an October 2008 staff report and draft interim guidance document¹⁴ that also recommended a threshold for all projects using a tiered approach.

It was recommended by SCAQMD staff that a project's greenhouse gas emissions would be considered significant if it could not comply with at least one of the following "tiered" tests:

- Tier 1: Is there an applicable exemption?
- Tier 2: Is the project compliant with a greenhouse gas reduction plan that is, at a minimum, consistent with the goals of AB 32?
- Tier 3: Is the project below an absolute threshold (10,000 MTCO₂e/yr for industrial projects; 3,000 MTCO₂e/yr for residential and commercial projects)?
- Tier 4: Is the project below a (yet to be set) performance threshold?
- Tier 5: Would the project achieve a screening level with off-site mitigation?

The proposed channel improvement project is consistent and compliant with Tier 3, in that the project is considered an industrial project with an absolute threshold below 10,000 MTCO₂e/yr. Due to the project's low annualized GHG emissions as compared to baseline conditions, the channel improvement project will not generate levels of GHGs, directly or indirectly, that would impact the environment.

Table 10
Operational GHG Emission Reduction Summary
(Metric Tons/Year)

	CO ₂	CH ₄	N ₂ O	CO ₂ e
Energy/Water/Solid Waste Emissions	0.00	0.00	0.00	0.00
Area Emissions	0.00038	0.00	0.00	0.0004
Buildout plus Amortized Construction Emissions ¹				137.18
Exceeds Thresholds?				No
Source: CalEEMod Version 2016.3.2. Values shown represent the total unmitigated GHG emission projections for operation of the Proposed Project. 1. Buildout construction GHG emissions were amortized over 30-years then added to buildout operational GHG emissions. 4,115.53/30 =137.18				

¹⁴ Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, prepared by SCAQMD, October 2008.

Therefore, the Proposed Project will not generate greenhouse gas emissions, either directly or indirectly, that may have a potentially significant impact on the environment and no mitigation is required.

All components of construction, including equipment, fuels, materials, and management practices, would be subject to current and future CVWD and SCAQMD rules and regulations related to greenhouse gases. Applicable SCAQMD rules include, but are not limited to, source specific standards that reduce the greenhouse gas content in engines and limit equipment idling durations. In addition, project-related GHG emissions will not exceed established GHG thresholds for construction because there are no such thresholds established. Therefore, this GHG impact would be less than significant.

Operation and maintenance of the subject channel reach would not exceed SCAQMD thresholds for operational emissions. Most of the project's GHG emissions will occur within the few months of construction, and there will be no new GHG emissions associated with channel operations and maintenance because that portion of the channel is currently being maintained by CVWD.

In addition, the project will not conflict with the goals of executive order S-3-05 or the 40% GHG reduction goal recently codified through Senate Bill 32 (2016) because (1) it is not considered a "large emitter" of GHGs (25,000 MT CO₂e/year) requiring cap-and-trade regulation per CARB's regulatory measure to help achieve statewide GHG reduction goals.

The project is also consistent with regional GHG reduction goals. The project would not conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of GHGs. This impact would be less than significant.

D. Cumulative Impacts

The CVSC improvement project extends for approximately two miles and is a portion of a larger improvement project focused on the Coachella Valley Stormwater Channel. Cumulative potential impacts to air quality were therefore assessed on a regional scale and given the dispersing nature of pollutant emissions and aggregate impacts from surrounding jurisdictions and air management districts. Any activity resulting in emissions of PM₁₀, ozone, or ozone precursors will unavoidably contribute, at some level, to regional non-attainment designations of ozone and PM₁₀. However, the level of cumulative impact a single project may have on regional air quality is difficult to measure.

The Coachella Valley is subject to the SCAQMD 2016 Air Quality Management Plan and the 2003 PM₁₀ Coachella Valley State Implementation Plan (CVSIP) to ensure levels of criteria pollutants are regulated and minimized to the best of the region's ability. The 2016 AQMP has set forth attainment deadlines and future emission level projections for criteria pollutants within the project area, which satisfies Section 15130(b)(1)(B) of the CEQA guidelines for analyzing cumulative impacts. These regional plans provide guidelines and rules for achieving state and federal air quality standards, which aid to reduce cumulative impacts, particularly through the enforcement of SCAQMD daily thresholds and implementation of time-sensitive reduction strategies to achieve attainment status.

Upon completion, the Proposed Project will not result in the emission of any new criteria pollutants, and may serve to somewhat reduce current emissions of PM₁₀ and ozone precursors. Therefore, by providing channel slope and bottom stabilization, and by potentially reducing maintenance, the project could have a positive long-term impact on cumulative air quality conditions. Cumulative air quality impacts are therefore limited to construction emissions. Construction mitigation and minimization measures set forth in this EIR are aimed to reduce the Proposed Project's contribution to any significant cumulative effects related to air quality.

The SSAB is designated as nonattainment under both the CAAQS and the NAAQS for ozone and PM₁₀. Emissions of CO, NOX and ROG that exceed the SCAQMD operational thresholds would contribute to the ozone nonattainment designation, while emissions of PM₁₀ that exceed the SCAQMD thresholds would contribute to the PM₁₀ nonattainment designation of the SSAB.

Construction activities associated with development of the Project will not exceed SCAQMD daily thresholds for criteria pollutants under mitigated conditions. However, emission of CO, NOx, ROG, and PM₁₀ during construction of the project are unavoidable and will marginally contribute to regional ozone and PM₁₀ non-attainment designations. The following discussions address cumulative impacts related to ozone and PM₁₀.

Regulation of Ozone

As previously discussed, SCAQMD studies indicate that most ozone is transported to the Salton Sea Air Basin from the upwind sources in the South Coast Air Basin. The amount of ozone contributed from other air basins is difficult to quantify; however, improved air quality in the project area depends upon reduced ozone emissions in the South Coast Air Basin. Therefore, cumulative impacts to ozone are better managed on a multi-regional scale as opposed to single projects. The SCAQMD 2016 AQMP provide current and future measures to reduce both stationary and mobile source ozone emissions. Proposed measures to reduce ozone include emission reductions from coatings and solvents, RECLAIM facilities, early transitions to cleaner mobile technologies, and incentives to adopt net zero and near zero technologies¹⁵.

CalEEMod does not calculate ozone emissions directly and therefore emissions of ozone precursors (CO, NOx, and ROG) were evaluated to determine project-related impacts to ozone. Ozone precursors are the primary pollutants involved in the chemical reaction process that forms ozone. The proposed project will not exceed local construction or operational thresholds for ozone precursors under required mitigated conditions.

Development of Project will adhere to ozone reduction measures set forth in the SCAQMD AQMP. Therefore, the proposed project is considered less than significant in regard to cumulative air quality impacts related to ozone.

Regulation of PM₁₀

Similar to ozone, PM₁₀ is regulated through the SCAQMD 2016 Air Quality Management Plan and 2003 PM₁₀ Coachella Valley State Implementation Plan (CVSIP). Additional PM₁₀ reduction measures include applicable state code and AQMD Rules, such as Rule 403 (Fugitive Dust), which

¹⁵ Final 2016 Air Quality Management Plan, South Coast Air Quality Management District, 2016.

enforces fugitive dust compliance for all activities within the SSAB. As shown in the analysis above, the Proposed Project will not exceed local daily thresholds for PM₁₀. Therefore, cumulative impacts to PM₁₀ are considered less than significant.

In conclusion, cumulative air quality impacts related to construction and operation of the Project are considered less than significant. Development and operation of the proposed project will not exceed air quality maximum daily thresholds for CO, NO_x and PM₁₀, which are cumulative thresholds by their nature. In addition, the proposed project is consistent with regulation requirements of ozone and PM₁₀ in the Salton Sea Air Basin. Therefore, cumulative impacts related to ozone and PM₁₀ emissions will be less than significant.

E. Conclusions

Development of the Proposed Project would not violate State or Federal air quality standards or substantially contribute to an existing air quality violation in the Salton Sea Air Basin. The Project does not conflict with or obstruct implementation of the SCAQMD Air Quality Management Plan or applicable GHG reduction plans. Nor does the project create objectionable odors affecting a substantial number of people. The project is not of local air quality concern and will not result in a CO or PM₁₀ hotspots.

The Proposed Project will adhere to all regulatory requirements to assure that air pollutant emissions generated by the subject undertaking are minimized. Furthermore, the recommendations set forth in Section V are designed to limit air pollutant emissions resulting from the proposed project. As such, the proposed CVSC Improvement Project would have a less than significant impact to air quality.

SECTION IV. PROJECT ALTERNATIVES

A. Alternative B – Fully Lined Channel

Alternative B proposes to fully line the channel cross section (sides and bottom) with reinforced concrete from approximately 1,000 feet upstream of Airport Boulevard downstream to the Thermal Drop Structure. Upstream of the fully lined section, only slope protection would be constructed. The channel invert would be lowered approximately five feet over the same extents as full lining construction.

Similar to the Proposed Project, the length of Alternative B is approximately two miles and will involve extensive grading along this entire reach, the removal of the drop structure, soil over-excavation and re-compaction, importing aggregate base, rebar and concrete. Alternative B would result in a total project area of 116± acres of possible disturbance.

Due to the excess cut associated with the project, construction will require a large number of hauling trips to export channel materials and to import concrete, steel and other construction materials. It is estimated that the proposed project will require 114,800 cubic yards of concrete (import), 9,503 tons of reinforcing steel (import), and result in an export of 319,000 cubic yards of surplus soil. It is assumed that each haul round trip will be approximately 6-10 miles¹⁶ based upon an average haul load of 20 tons (or 16 cubic yards)¹⁷. It is assumed that buildout of Alternative B would occur over a 2-year period.

The following table provides unmitigated construction-related air quality impacts for Alternative B buildout.

Table 11
Unmitigated Construction Emissions Summary
Alternative B- Fully Lined Channel
Maximum Daily Emissions

	(lbs./day)					
	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
Max. Daily Emissions	238.21	360.34	33.31	0.51	19.23	15.79
SCAQMD Threshold*	550.00	100.00	75.00	150.00	150.00	55.00
Exceeds Threshold	No	Yes	No	No	No	No
Source: CalEEMod Version 2016.3.1. See Appendix A for detailed tables. Value shown represents the average unmitigated emissions from summer and winter.						
* Source: "SCAQMD Air Quality Significance Thresholds" prepared by South Coast Air Quality Management District, March 2015.						

¹⁶ Soil will be exported to CVWD WWRP-4 (3.5 miles from project site), concrete will be from Desert Redi-Mix (3.8 miles from project site), and the reinforced steel will be from Sepulveda Building Materials (5.5 miles from project site).

¹⁷ The air emission modeling software, CalEEMod, assumes each haul load is approximately 20 tons. This assumption is programmed into the model.

As shown in the table above, SCAQMD daily thresholds for CO, ROG, SO_x, PM₁₀ and PM_{2.5} will not be exceeded during construction of any phase of Alternative B development. However, NO_x emissions have the potential to slightly exceed SCAMD thresholds due to simultaneous use of construction equipment and material hauling. To reduce NO_x emissions and overall project impacts to less than significant levels, the same mitigation measures applied to the Proposed Project will be applied to Alternative B. The list of mitigation measures are presented in Section V of this Report.

As shown in Table 13 below, adherence to the above mitigation measures would reduce construction-related criteria pollutant emissions below SCAQMD thresholds. Construction emissions will be further minimized through best development practices, proper maintenance of construction equipment, and other recommendations set forth in Section V that limit the project's contribution to air pollutant emissions during construction. Therefore, impacts to air quality resulting from construction of Alternative B will be less than significant.

Table 12
Mitigated Construction Emissions Summary
Alternative B- Fully Lined Channel
Maximum Daily Emissions

	(lbs./day)					
	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
Max. Daily Emissions	273.33	89.35	12.07	0.51	8.35	4.23
SCAQMD Threshold*	550.00	100.00	75.00	150.00	150.00	55.00
Exceeds Threshold	No	No	No	No	No	No
Source: CalEEMod Version 2016.3.1 See Appendix A for detailed tables. Value shown represents the average mitigated emissions from summer and winter.						
* Source: "SCAQMD Air Quality Significance Thresholds" prepared by South Coast Air Quality Management District, March 2015.						

Localized Construction-Related Significance Thresholds and Emissions

The same LST parameters used to analyze the Proposed Project were used to analyze impacts associated with Alternative B. The maximum area of disturbance associated with buildout of Alternative B is approximately 116 acres and it is assumed that buildout would occur gradually over the course of two years. Although the total project area is greater than five-acres, the area of daily disturbance (for purposes of LST analysis only) is limited to five acres or less per day at any given location.¹⁸ As such, the five-acre look up table is appropriate under the SCAQMD's methodology to screen for potential localized air quality impacts.¹⁹

¹⁸ The equipment specific grading rates are based on the SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds guidance document. Per SCAQMD's guidance, the identified equipment is used to determine the maximum daily soil disturbance area for the purposes of evaluating localized construction impacts and is not an exhaustive list of all equipment that would be used during project construction. Additionally, the acreage identified in this table is used for the purposes of identifying a conservative Localized Significance Threshold (i.e., smaller disturbed areas have lower Localized Significance Thresholds) and does not represent a daily limit on the grading allowed on the site. In summary, then, the LST methodology focuses on the equipment that may be operated and acreage that may be disturbed in areas immediate proximate to potential sensitive receptors, even if other equipment may be operated or other acreage may be disturbed in areas that are farther away from the sensitive receptor.

¹⁹ South Coast AQMD, "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds."

The Mass Rate Look-Up tables for LSTs were used to determine if the Proposed Project would have the potential to generate significant adverse localized air quality impacts during construction. The LST for Source Receptor Area (SRA) 30 (Coachella Valley) was used to determine LST emission thresholds. The distance from the emission source and the maximum daily site disturbance also determines emission thresholds. For analysis purposes, the worst-case scenario of a sensitive receptor being within 25 meters was used and is representative of the residential development in proximity of the planning area.

Results show that LST thresholds are not expected to be exceeded for CO, NO_x, and PM₁₀ during project development under unmitigated conditions. However, PM_{2.5} emissions have the potential to exceed LST thresholds due to dust from off-road construction vehicles. To reduce PM_{2.5} emissions and overall project impacts to less than significant levels, mitigation measures are set forth in Section V.

Table 13
Unmitigated Localized Significance Thresholds
Alternative B- Fully Lined Channel
25 Meters, 5 Acres

(lbs per day)				
	CO	NO _x	PM ₁₀	PM _{2.5}
Max. Onsite Emissions ¹	126.67	194.30	9.43	8.36
LST	2,292	304	14	8
Exceed?	No	No	No	Yes
Source: CalEEMod Version 2016.3.1. See Appendix A. Emissions show the highest emitting day for all emissions generated onsite during construction.				
1. Maximum onsite emissions occur during the grading period in 2020.				

As shown in the table below, adherence to the mitigation measures set forth in Section V would reduce LST-related criteria pollutant emissions below SCAQMD thresholds. Construction emissions will be further minimized through best management practices, and proper maintenance of construction equipment during construction. Therefore, impacts to LSTs from construction of Alternative B will be less than significant.

Table 14
Mitigated Localized Significance Thresholds
Alternative B- Fully Lined Channel
25 Meters, 5 Acres

(lbs per day)				
	CO	NO _x	PM ₁₀	PM _{2.5}
Max. Onsite Emissions ¹	147.54	21.66	1.35	1.14
LST	2,292	304	14	8
Exceed?	No	No	No	No
Source: CalEEMod Version 2016.3.1. See Appendix A. Emissions show the highest emitting day for all emissions generated onsite during construction.				
1. Maximum onsite emissions occur during the grading period in 2020.				

Potential Odors

Alternative B is not expected to generate significant objectionable odors during any phase of construction. The proposed project has the potential to result in short-term odors associated with paving and other construction activities. However, construction-related odors would be quickly dispersed below detectable thresholds and as distance from the construction site increases. Therefore, impacts from objectionable odors are expected to be less than significant.

B. Operational Emissions

CalEEMod generates operational air pollutant emissions from three emission source categories: Energy, Mobile, and Area sources. Energy sources refer to direct and indirect use of fossil fuels for energy use, including natural gas and electricity usage in buildings, lighting for parking structures, ventilation, and operation of elevators. Mobile sources refer to emissions associated with motor vehicle trips generated by specific land uses. Area sources refer to consumable products such as landscaping, building maintenance and cleaning supplies, kitchen and restroom supplies, pavement off-gassing, and periodic reapplication of architectural coatings.

Operational Emissions of Criteria Pollutants and Odors

There will be no new operational impacts associated with Alternative B. Existing on-going channel maintenance, including periodic vegetation removal and other CVWD channel maintenance services, will continue after project completion. There will be no impacts.

C. Greenhouse Gas Emissions

Construction Related Greenhouse Gas Emissions

Construction activities will result in short-term GHG emissions associated with operation of construction equipment, employee commute, material hauling, and other ground disturbing activities. There are currently no construction-related GHG emission thresholds for projects of this nature. To determine if construction emissions will result in a cumulative considerable impact, buildout GHG emissions were amortized over a 30-year period and added to annual operational emissions to be compared to applicable GHG thresholds.

GHG emissions from channel construction are temporary and will not substantially affect climate or interfere with a GHG reduction plan. All components of construction, including equipment, fuels, materials, and management practices, will be subject to current regulations of GHGs. The following table summarizes the estimated GHG emissions from construction of the Alternative B.

Table 15
Construction GHG Emissions Summary
Alternative B- Fully Lined Channel
(Metric Tons/Year)

	CO ₂	CH ₄	N ₂ O	Total CO ₂ e
Buildout	5,062.17	1.34	0.00	5,095.77
Source: CalEEMod Versions 2016.3.1. See Appendix A for detailed tables. Values shown represent the total unmitigated GHG emission projections for construction of the proposed project. CO ₂ e includes the remaining GHG pollutants, such as hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride.				

Operational Greenhouse Gas Emissions

There are five emission source categories that contribute either directly or indirectly to operational GHG emissions, including energy/electricity usage, water usage, solid waste disposal, area emissions (pavement and architectural coating off-gassing), and mobile sources. CVWD currently provides maintenance services to the proposed section of the channel, include vegetation removal/maintenance and other facility services. Alternative B will not require additional operational or maintenance services. therefore, impacts will be limited to area emissions and the amortized construction emissions.

Alternative B is consistent and compliant with Tier 3 of the SCAQMD recommended GHG thresholds, in that the project is considered an industrial project with an absolute threshold below 10,000 MTCO₂e/yr. Due to the project's low annualized GHG emissions as compared to baseline conditions, the channel improvement project will not generate levels of GHGs, directly or indirectly, that would impact the environment.

Table 16
Operational GHG Emission Reduction Summary
Alternative B- Fully Lined Channel

(Metric Tons/Year)

	CO ₂	CH ₄	N ₂ O	CO ₂ e
Energy/Water/Solid Waste Emissions	0.00	0.00	0.00	0.00
Area Emissions	0.00085	0.00	0.00	0.0008
Buildout plus Amortized Construction Emissions ¹				169.85
Exceeds Thresholds?				No
Source: CalEEMod Version 2016.3.1.Values shown represent the total unmitigated GHG emission projections for operation of the Proposed Project. 1. Buildout construction GHG emissions were amortized over 30-years then added to buildout operational GHG emissions. 5095.77/30 =169.85				

Therefore, Alternative B will not generate greenhouse gas emissions, either directly or indirectly, that may have a potentially significant impact on the environment and no mitigation is required.

All components of construction, including equipment, fuels, materials, and management practices, would be subject to current and future CVWD and SCAQMD rules and regulations related to greenhouse gases. Applicable SCAQMD rules include, but are not limited to, source specific standards that reduce the greenhouse gas content in engines and limit equipment idling durations. In addition, project-related GHG emissions will not exceed established GHG thresholds for construction because there are no such thresholds established. Therefore, this GHG impact would be less than significant.

Operation and maintenance of the subject channel reach would not exceed SCAQMD thresholds for operational emissions. Most of the project's GHG emissions will occur within the few months of construction, and there will be no new GHG emissions associated with channel operations and maintenance because that portion of the channel is currently being maintained by CVWD.

In addition, Alternative B will not conflict with the goals of executive order S-3-05 or the 40% GHG reduction goal recently codified through Senate Bill 32 (2016) because (1) it is not considered a "large emitter" of GHGs (25,000 MT CO₂e/year) requiring cap-and-trade regulation per CARB's regulatory measure to help achieve statewide GHG reduction goals.

Alternative B is also consistent with regional GHG reduction goals. The project would not conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of GHGs. This impact would be less than significant.

D. Cumulative Impacts

Cumulative air quality impacts associated with Alternative B would be similar to the Proposed Project due to the dispersing nature of pollutant emissions and aggregate impacts from surrounding jurisdictions and air management districts. As such, cumulative air quality impacts related to construction and operation of Alternative B are considered less than significant. Development and operation of Alternative B will not exceed air quality maximum daily thresholds (mitigated) for CO, NO_x and PM₁₀, which are cumulative thresholds by their nature. Therefore, impacts related to ozone and PM₁₀ emissions will be less than significant. Alternative B will not result in a cumulatively considerable contribution to GHG emissions.

E. Conclusions

Development of Alternative B would not violate State or Federal air quality standards or substantially contribute to an existing air quality violation in the Salton Sea Air Basin under mitigated conditions, nor will it conflict with or obstruct implementation of the SCAQMD Air Quality Management Plan or applicable GHG reduction plans. Alternative B will not create objectionable odors affecting a substantial number of people. The project is not of local air quality concern and will not result in a CO or PM₁₀ hotspots.

Alternative B will adhere to all regulatory requirements to assure that air pollutant emissions generated by the subject undertaking are minimized. Furthermore, the recommendations set forth in Section V are designed to limit air pollutant emissions resulting from Alternative B. As such, Alternative B would have a less than significant impact to air quality.

F. Alternative C – Slope Lining and Channel Widening

Alternative C would provide slope protection along the entire length of the Project channel reach. The existing channel bottom would be unlined except at the bridges, and a soft bottom along most of the channel where vegetation will be permitted with minimal maintenance. Widen the eastern portion of the channel between Airport Blvd and UPRR bridges and periodically mow vegetation in subject portion of unlined channel bottom to maintain channel capacity.

Similar to the Proposed Project, the length of Alternative C is approximately two miles and will involve extensive grading along this entire reach, the removal of the drop structure, soil over-excavation and re-compaction, importing aggregate base, rebar and concrete. Alternative C would result in a total project area of 136± acres of possible disturbance.

Due to the excess cut associated with Alternative C, construction will require a large number of hauling trips to export channel materials and to import concrete, steel and other construction materials. It is estimated that the proposed project will require 37,200 cubic yards of concrete (import), 1,776 tons of reinforcing steel (import), and result in an export of 772,333 cubic yards of surplus soil. It is assumed that each haul round trip will be approximately 6-10 miles²⁰ based upon an average haul load of 20 tons (or 16 cubic yards)²¹. It is assumed that buildout of Alternative B would occur over an 18-month period.

The following table provides unmitigated construction-related air quality impacts for Alternative C buildout.

Table 17
Unmitigated Construction Emissions Summary
Alternative C- Slope Lining and Channel Widening
Maximum Daily Emissions

	(lbs./day)					
	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
Max. Daily Emissions	240.92	382.67	33.81	0.56	20.51	16.12
SCAQMD Threshold*	550.00	100.00	75.00	150.00	150.00	55.00
Exceeds Threshold	No	Yes	No	No	No	No
Source: CalEEMod Version 2016.3.1. See Appendix A for detailed tables. Value shown represents the average unmitigated emissions from summer and winter.						
* Source: "SCAQMD Air Quality Significance Thresholds" prepared by South Coast Air Quality Management District, March 2015.						

As shown in the table above, SCAQMD daily thresholds for CO, ROG, SO_x, PM₁₀ and PM_{2.5} will not be exceeded during construction of any phase of Alternative C development. However, NO_x emissions have the potential to slightly exceed SCAMD thresholds due to simultaneous use of construction equipment and material hauling. To reduce NO_x emissions, the same mitigation measures applied to the Proposed Project will be applied to Alternative C. The list of mitigation measures are presented in Section V of this Report.

²⁰ Soil will be exported to CVWD WWRP-4 (3.5 miles from project site), concrete will be from Desert Redi-Mix (3.8 miles from project site), and the reinforced steel will be from Sepulveda Building Materials (5.5 miles from project site).

²¹ The air emission modeling software, CalEEMod, assumes each haul load is approximately 20 tons. This assumption is programmed into the model.

As shown in Table 19 below, adherence to the above mitigation measures would reduce construction-related criteria pollutant emissions, however NO_x emission will still exceed SCAQMD thresholds. Therefore, impacts to air quality resulting from construction of Alternative C will be significant and unavoidable.

Table 18
Mitigated Construction Emissions Summary
Alternative C- Slope Lining and Channel Widening
Maximum Daily Emissions

	(lbs./day)					
	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
Max. Daily Emissions	276.04	111.67	12.57	0.56	7.35	4.51
SCAQMD Threshold*	550.00	100.00	75.00	150.00	150.00	55.00
Exceeds Threshold	No	Yes	No	No	No	No
Source: CalEEMod Version 2016.3.1. See Appendix A for detailed tables. Value shown represents the average mitigated emissions from summer and winter.						
* Source: "SCAQMD Air Quality Significance Thresholds" prepared by South Coast Air Quality Management District, March 2015.						

Localized Construction-Related Significance Thresholds and Emissions

The same LST parameters used to analyze the Proposed Project were used to analyze impacts associated with Alternative C. The maximum area of disturbance associated with buildout of Alternative C is approximately 136 acres and it is assumed that buildout would occur gradually over the course of 18 months. Although the total project area is greater than five-acres, the area of daily disturbance (for purposes of LST analysis only) is limited to five acres or less per day at any given location.²² As such, the five-acre look up table is appropriate under the SCAQMD's methodology to screen for potential localized air quality impacts.²³

The Mass Rate Look-Up tables for LSTs were used to determine if the Proposed Project would have the potential to generate significant adverse localized air quality impacts during construction. The LST for Source Receptor Area (SRA) 30 (Coachella Valley) was used to determine LST emission thresholds. The distance from the emission source and the maximum daily site disturbance also determines emission thresholds. For analysis purposes, the worst-case scenario of a sensitive receptor being within 25 meters was used and is representative of the residential development in proximity of the planning area.

²² The equipment specific grading rates are based on the SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds guidance document. Per SCAQMD's guidance, the identified equipment is used to determine the maximum daily soil disturbance area for the purposes of evaluating localized construction impacts and is not an exhaustive list of all equipment that would be used during project construction. Additionally, the acreage identified in this table is used for the purposes of identifying a conservative Localized Significance Threshold (i.e., smaller disturbed areas have lower Localized Significance Thresholds) and does not represent a daily limit on the grading allowed on the site. In summary, then, the LST methodology focuses on the equipment that may be operated and acreage that may be disturbed in areas immediate proximate to potential sensitive receptors, even if other equipment may be operated or other acreage may be disturbed in areas that are farther away from the sensitive receptor.

²³ South Coast AQMD, "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds."

Results show that LST thresholds are not expected to be exceeded for CO, NO_x, and PM₁₀ during project development under unmitigated conditions. However, PM_{2.5} emissions have the potential to exceed LST thresholds due to dust from off-road construction vehicles. To reduce PM_{2.5} emissions and overall project impacts to less than significant levels, mitigation measures are set forth in Section V.

Table 19
Unmitigated Localized Significance Thresholds
Alternative C- Slope Lining and Channel Widening
25 Meters, 5 Acres

(lbs per day)				
	CO	NO _x	PM ₁₀	PM _{2.5}
Max. Onsite Emissions ¹	126.67	194.30	9.71	8.40
LST	2,292	304	14	8
Exceed?	No	No	No	Yes
Source: CalEEMod Version 2016.3.1. See Appendix A. Emissions show the highest emitting day for all emissions generated onsite during construction.				
1. Maximum onsite emissions occur during the grading period in 2020.				

As shown in the table below, adherence to the mitigation measures set forth in Section V would reduce LST-related criteria pollutant emissions below SCAQMD thresholds. Construction emissions will be further minimized through best management practices, and proper maintenance of construction equipment during construction. Therefore, impacts to LSTs from construction of Alternative C will be less than significant.

Table 20
Mitigated Localized Significance Thresholds
Alternative C- Slope Lining and Channel Widening
25 Meters, 5 Acres

(lbs per day)				
	CO	NO _x	PM ₁₀	PM _{2.5}
Max. Onsite Emissions ¹	147.54	21.66	1.45	1.15
LST	2,292	304	14	8
Exceed?	No	No	No	No
Source: CalEEMod Version 2016.3.1. See Appendix A. Emissions show the highest emitting day for all emissions generated onsite during construction.				
1. Maximum onsite emissions occur during the grading period in 2020.				

Potential Odors

Alternative C is not expected to generate significant objectionable odors during any phase of construction. The proposed project has the potential to result in short-term odors associated with paving and other construction activities. However, construction-related odors would be quickly dispersed below detectable thresholds and as distance from the construction site increases. Therefore, impacts from objectionable odors are expected to be less than significant.

G. Operational Emissions

CalEEMod generates operational air pollutant emissions from three emission source categories: Energy, Mobile, and Area sources. Energy sources refer to direct and indirect use of fossil fuels for energy use, including natural gas and electricity usage in buildings, lighting for parking structures, ventilation, and operation of elevators. Mobile sources refer to emissions associated with motor vehicle trips generated by specific land uses. Area sources refer to consumable products such as landscaping, building maintenance and cleaning supplies, kitchen and restroom supplies, pavement off-gassing, and periodic reapplication of architectural coatings.

Operational Emissions of Criteria Pollutants and Odors

There will be no new operational impacts associated with Alternative C. Existing on-going channel maintenance, including periodic vegetation removal and other CVWD channel maintenance services, will continue after project completion. There will be no impacts.

H. Greenhouse Gas Emissions

Construction Related Greenhouse Gas Emissions

Construction activities will result in short-term GHG emissions associated with operation of construction equipment, employee commute, material hauling, and other ground disturbing activities. There are currently no construction-related GHG emission thresholds for projects of this nature. To determine if construction emissions will result in a cumulative considerable impact, buildout GHG emissions were amortized over a 30-year period and added to annual operational emissions to be compared to applicable GHG thresholds.

GHG emissions from channel construction are temporary and will not substantially affect climate or interfere with a GHG reduction plan. All components of construction, including equipment, fuels, materials, and management practices, will be subject to current regulations of GHGs. The following table summarizes the estimated GHG emissions from construction of the Alternative C.

Table 21
Construction GHG Emissions Summary
Alternative C- Slope Lining and Channel Widening
(Metric Tons/Year)

	CO₂	CH₄	N₂O	Total CO₂e
Buildout	4,382.48	1.10	0.00	4,409.77
Source: CalEEMod Versions 2016.3.1. See Appendix A for detailed tables. Values shown represent the total unmitigated GHG emission projections for construction of the proposed project. CO ₂ e includes the remaining GHG pollutants, such as hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride.				

Operational Greenhouse Gas Emissions

There are five emission source categories that contribute either directly or indirectly to operational GHG emissions, including energy/electricity usage, water usage, solid waste disposal, area emissions (pavement and architectural coating off-gassing), and mobile sources. CVWD currently provides maintenance services to the proposed section of the channel, include vegetation removal/maintenance and other facility services. Alternative C will not require additional operational or maintenance services. therefore, impacts will be limited to area emissions and the amortized construction emissions.

Alternative C is consistent and compliant with Tier 3 of the SCAQMD recommended GHG thresholds, in that the project is considered an industrial project with an absolute threshold below 10,000 MTCO₂e/yr. Due to the project's low annualized GHG emissions as compared to baseline conditions, the channel improvement project will not generate levels of GHGs, directly or indirectly, that would impact the environment.

Table 22
Operational GHG Emission Reduction Summary
Alternative C- Slope Lining and Channel Widening
(Metric Tons/Year)

	CO ₂	CH ₄	N ₂ O	CO ₂ e
Energy/Water/Solid Waste Emissions	0.00	0.00	0.00	0.00
Area Emissions	0.00045	0.00	0.00	0.0004
Buildout plus Amortized Construction Emissions ¹				146.99
Exceeds Thresholds?				No
Source: CalEEMod Version 2016.3.1.Values shown represent the total unmitigated GHG emission projections for operation of the Proposed Project. 1. Buildout construction GHG emissions were amortized over 30-years then added to buildout operational GHG emissions. $4,409.77/30 = 146.99$				

Therefore, Alternative C will not generate greenhouse gas emissions, either directly or indirectly, that may have a potentially significant impact on the environment and no mitigation is required.

All components of construction, including equipment, fuels, materials, and management practices, would be subject to current and future CVWD and SCAQMD rules and regulations related to greenhouse gases. Applicable SCAQMD rules include, but are not limited to, source specific standards that reduce the greenhouse gas content in engines and limit equipment idling durations. In addition, project-related GHG emissions will not exceed established GHG thresholds for construction because there are no such thresholds established. Therefore, this GHG impact would be less than significant.

Operation and maintenance of the subject channel reach would not exceed SCAQMD thresholds for operational emissions. Most of the project's GHG emissions will occur within the few months of construction, and there will be no new GHG emissions associated with channel operations and maintenance because that portion of the channel is currently being maintained by CVWD.

In addition, Alternative C will not conflict with the goals of executive order S-3-05 or the 40% GHG reduction goal recently codified through Senate Bill 32 (2016) because (1) it is not considered a "large emitter" of GHGs (25,000 MT CO₂e/year) requiring cap-and-trade regulation per CARB's regulatory measure to help achieve statewide GHG reduction goals.

Alternative C is also consistent with regional GHG reduction goals. The project would not conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of GHGs. This impact would be less than significant.

I. Cumulative Impacts

Cumulative air quality impacts associated with Alternative C would be similar to the Proposed Project due to the dispersing nature of pollutant emissions and aggregate impacts from surrounding jurisdictions and air management districts. However, construction emissions associated Alternative C, specifically NO_x emissions, will exceed SCAQMD thresholds and create a significant and unavoidable impact. Therefore, Alternative C will result in a cumulatively considerable contribution to GHG emissions. Specifically, Alternative C will contribute to impacts associated with the Coachella Valley's nonattainment of ozone, for which NO_x is a precursor. Impacts will be significant and unavoidable.

J. Conclusions

Development of Alternative C would violate State or Federal air quality standards associated with NO_x and substantially contribute to an existing air quality violation (ozone) in the Salton Sea Air Basin under mitigated conditions. Thus, Alternative C will necessarily conflict with the SCAQMD Air Quality Management Plan and applicable GHG reduction plans. Alternative C will not create objectionable odors affecting a substantial number of people. The project is not of local air quality concern and will not result in a CO or PM₁₀ hotspots.

Alternative C will adhere to all regulatory requirements to assure that air pollutant emissions generated by the subject undertaking are minimized. However, the project will still exceed NO_x thresholds under mitigated conditions. As such, Alternative C would have a significant and unavoidable impact to air quality.

SECTION V. AIR QUALITY RECOMMENDATIONS

The following provides mitigation measures, standard rules, and minimization measures to further reduce impacts to air quality.

A. Mitigation Measures

AQ-1: To reduce particulate matter and NO_x emissions construction equipment shall utilize aqueous diesel fuels, diesel particulate filters and diesel oxidation catalyst with a minimum 30% reduction rating during all construction activities.

AQ-2 SCAQMD Rule 403 (403.1 specific to the Coachella Valley): A Dust Control Plan shall be prepared and implemented by all contractors during all construction activities, including ground disturbance, grubbing, grading, and materials import and export. Said plan shall include but not be limited to the following best management practices:

- Treated and stabilized soil where activity will cease for at least four consecutive days;
- All construction grading operations and earth moving operations shall cease when winds exceed 25 miles per hour;
- Water site and equipment morning and evening and during all earth-moving operations;
- Operate street-sweepers on impacted paved roads adjacent to site;
- Establish and strictly enforce limits of grading for each phase of construction;
- Wash off trucks as they leave the project site to control fugitive dust emissions
- Cover all transported loads of soils, wet materials prior to transport, provide freeboard (space from the top of the material to the top of the truck) to reduce PM₁₀ and deposition of particulate matter during transportation
- Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic.

AQ-3 To reduce NO_x emissions, construction equipment shall be equipped with Tier 4 engines.

B. Recommended Control Measures

The following control measures are recommended to further limit air quality emissions:

1. To reduce particulate matter and NO_x emissions construction equipment should utilize aqueous diesel fuels, diesel particulate filters and diesel oxidation catalyst during all construction activities.
2. All construction equipment should be properly serviced and maintained in optimal operating condition.
3. Construction equipment should not be left idling for more than five minutes.

4. As feasible, construction waste should be recycling to reroute waste from landfills and minimize the project's contribution to the landfill.
5. The contractor shall notify the applicable jurisdiction of the start and end of grading and construction activities in conformance and within the time frames established in the 2003 PM₁₀ State Implementation Plan.
6. Construction staging and management plans shall be reviewed and conditioned to require the application of all reasonably available methods and technologies to assure the minimal emissions of pollutants from the development. The City Engineer shall review grading plan applications to ensure compliance with the mitigation measures set forth in this document and as otherwise conditioned by the City.
7. Construction equipment and materials shall be sited as far away from residential and park uses as practicable.

DOCUMENTS REFERENCED

1. "Final 2016 Air Quality Management Plan," prepared by South Coast Air Quality Management District, 2016.
2. "CEQA Air Quality Handbook," prepared by South Coast Air Quality Management District, April 1993.
3. "Final Localized Significance Threshold Methodology, prepared by the South Coast Air Quality Management District, Revised, July 2008.
4. "South Coast Air Quality Management District Rules and Regulations," adopted February 4, 1977.
5. "Annual Air Quality Site Monitoring Reports," prepared by the South Coast Air Quality Management District.
6. "The California Almanac of Emissions and Air Quality, 2006 Edition," California Air Resources Board, Planning and Technical Support Division, March 2006.
7. "Climate Change 2007: The Physical Science Basis," Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, edited by S. Solomon, D. Qin, and M. Manning, April 2007.
8. "Working Group III Contribution to the Intergovernmental Panel on Climate Change Fourth Assessment Report, Climate Change 2007: Mitigation of Climate Change," prepared by the Intergovernmental Panel on Climate Change, May 2007.
9. "2003 Coachella Valley PM10 State Implementation Plan," August 1, 2003.

APPENDIX A

CVSC Improvement Project Air Emission Outputs
CalEEMod Version 2016.3.1

Proposed Project

CVSC Improvement Project Air Emission
Outputs CalEEMod Version 2016.3.2

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

CVWD CVSC Improvement Project: Proposed Project
Salton Sea Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	21.12	Acre	116.14	919,987.20	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

Project Characteristics -

Land Use - Project consists of concrete lined slopes and partial concrete lined channel bottom within stormwater channel.

Construction Phase - Assumes a 1-year buildout from March 2020 to March 2021.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineer.

Off-road Equipment - Equipment list provided by project engineer.

Trips and VMT - Haul trip lengths based on actual import/export locations within project area.

On-road Fugitive Dust - All roads within project area are paved.

Grading - Import/export quantities provided by project engineer. Includes concrete, reinforcing steel, and surplus soil based on 90% plans.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - Assumes adherence to standard dust control measures per SCAQMD Rule 401.3 (Coachella Valley) and use of oxidation catalysts on all construction equipment with a reduction equivalent of 30%.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	10
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	16.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblGrading	AcresOfGrading	2,325.00	116.00
tblGrading	AcresOfGrading	180.00	0.00
tblGrading	MaterialExported	0.00	370,000.00
tblGrading	MaterialImported	0.00	80,000.00
tblGrading	MaterialImported	0.00	4,500.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialSiltContent	6.90	2.00
tblGrading	MaterialSiltContent	6.90	0.00
tblLandUse	LotAcreage	21.12	116.14
tblOffRoadEquipment	HorsePower	64.00	247.00
tblOffRoadEquipment	LoadFactor	0.46	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	WorkerTripNumber	30.00	23.00
tblTripsAndVMT	WorkerTripNumber	120.00	118.00
tblTripsAndVMT	WorkerTripNumber	88.00	73.00

2.0 Emissions Summary

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	2.8078	31.1411	20.7364	0.0463	0.3716	1.3059	1.6774	0.1258	1.2147	1.3405	0.0000	4,088.7206	4,088.7206	1.0725	0.0000	4,115.5333
2021	0.3581	3.8153	2.9925	6.4000e-003	0.1669	0.1624	0.3293	0.0377	0.1514	0.1891	0.0000	563.9927	563.9927	0.1445	0.0000	567.6039
Maximum	2.8078	31.1411	20.7364	0.0463	0.3716	1.3059	1.6774	0.1258	1.2147	1.3405	0.0000	4,088.7206	4,088.7206	1.0725	0.0000	4,115.5333

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.9138	7.1203	23.7250	0.0463	0.2648	0.2376	0.5024	0.0803	0.2234	0.3036	0.0000	4,088.7164	4,088.7164	1.0725	0.0000	4,115.5290
2021	0.1172	0.8305	3.4517	6.4000e-003	0.1101	0.0286	0.1386	0.0263	0.0269	0.0532	0.0000	563.9921	563.9921	0.1445	0.0000	567.6033
Maximum	0.9138	7.1203	23.7250	0.0463	0.2648	0.2376	0.5024	0.0803	0.2234	0.3036	0.0000	4,088.7164	4,088.7164	1.0725	0.0000	4,115.5290

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	67.43	77.25	-14.53	0.00	30.40	81.87	68.06	34.84	81.68	76.67	0.00	0.00	0.00	0.00	0.00	0.00

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2020	5-31-2020	8.5324	2.6242
2	6-1-2020	8-31-2020	10.9277	2.3403
3	9-1-2020	11-30-2020	10.7708	2.2878
4	12-1-2020	2-28-2021	7.9337	1.7425
5	3-1-2021	5-31-2021	0.0311	0.0073
		Highest	10.9277	2.6242

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0787	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0787	0.0000	1.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0787	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0787	0.0000	1.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2020	6/1/2020	5	120	
2	Grading	Grading	4/1/2020	2/1/2021	5	310	
3	Paving	Paving	5/1/2020	3/1/2021	5	220	

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 116****Acres of Paving: 116.14****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Bore/Drill Rigs	2	6.00	221	0.50
	Crawler Tractors	6	6.00	212	0.43
	Excavators	5	6.00	158	0.38
	Generator Sets	4	8.00	84	0.74
	Graders	2	6.00	187	0.41
	Off-Highway Tractors	2	6.00	124	0.44
	Off-Highway Trucks	4	6.00	402	0.38
	Other Construction Equipment	6	6.00	172	0.42
	Plate Compactors	4	6.00	8	0.43
	Rubber Tired Loaders	1	6.00	203	0.36
	Scrapers	6	6.00	367	0.48
	Sweepers/Scrubbers	1	6.00	64	0.46
	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Site Preparation	Crawler Tractors	2	6.00	212	0.43
Site Preparation	Excavators	2	6.00	158	0.38
Site Preparation	Graders	2	6.00	187	0.41
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Sweepers/Scrubbers	1	6.00	247	0.40

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

Site Preparation	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Bore/Drill Rigs	2	6.00	221	0.50
Grading	Crawler Tractors	6	6.00	212	0.43
Grading	Excavators	5	6.00	158	0.38
Grading	Generator Sets	4	8.00	84	0.74
Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Tractors	2	6.00	124	0.44
Grading	Off-Highway Trucks	4	6.00	402	0.38
Grading	Other Construction Equipment	6	6.00	172	0.42
Grading	Plate Compactors	4	6.00	8	0.43
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	6.00	203	0.36
Grading	Scrapers	6	6.00	367	0.48
Grading	Sweepers/Scrubbers	1	6.00	64	0.46
Grading	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Paving	Concrete/Industrial Saws	1	6.00	81	0.73
Paving	Cranes	2	3.00	231	0.29
Paving	Crawler Tractors	1	6.00	212	0.43
Paving	Excavators	1	6.00	158	0.38
Paving	Generator Sets	4	8.00	84	0.74
Paving	Graders	2	6.00	187	0.41
Paving	Off-Highway Tractors	4	6.00	124	0.44
Paving	Other Construction Equipment	4	6.00	172	0.42
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Plate Compactors	4	6.00	8	0.43
Paving	Rollers	2	8.00	80	0.38

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

Paving	Rubber Tired Loaders	1	6.00	203	0.36
Paving	Sweepers/Scrubbers	1	6.00	64	0.46
Paving	Tractors/Loaders/Backhoes	4	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	12	23.00	0.00	445.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Grading	48	118.00	0.00	46,250.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Paving	35	73.00	0.00	0.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Oxidation Catalyst for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

3.2 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4000e-004	0.0000	1.4000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1905	2.1345	0.9462	2.1800e-003		0.0946	0.0946		0.0871	0.0871	0.0000	191.6701	191.6701	0.0620	0.0000	193.2198
Total	0.1905	2.1345	0.9462	2.1800e-003	1.4000e-004	0.0946	0.0948	2.0000e-005	0.0871	0.0871	0.0000	191.6701	191.6701	0.0620	0.0000	193.2198

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.9000e-004	0.0176	2.0600e-003	4.0000e-005	7.7000e-004	3.0000e-005	8.0000e-004	2.0000e-004	2.0000e-005	2.3000e-004	0.0000	3.5546	3.5546	4.3000e-004	0.0000	3.5653
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8500e-003	2.8600e-003	0.0284	6.0000e-005	6.2700e-003	4.0000e-005	6.3100e-003	1.6700e-003	4.0000e-005	1.7000e-003	0.0000	5.3593	5.3593	2.3000e-004	0.0000	5.3650
Total	4.2400e-003	0.0205	0.0304	1.0000e-004	7.0400e-003	7.0000e-005	7.1100e-003	1.8700e-003	6.0000e-005	1.9300e-003	0.0000	8.9139	8.9139	6.6000e-004	0.0000	8.9303

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

3.2 Site Preparation - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1233	1.1717	1.1361	2.1800e-003		0.0571	0.0571		0.0527	0.0527	0.0000	191.6698	191.6698	0.0620	0.0000	193.2196
Total	0.1233	1.1717	1.1361	2.1800e-003	5.0000e-005	0.0571	0.0572	1.0000e-005	0.0527	0.0527	0.0000	191.6698	191.6698	0.0620	0.0000	193.2196

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.9000e-004	0.0176	2.0600e-003	4.0000e-005	7.1000e-004	3.0000e-005	7.3000e-004	1.9000e-004	2.0000e-005	2.1000e-004	0.0000	3.5546	3.5546	4.3000e-004	0.0000	3.5653
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8500e-003	2.8600e-003	0.0284	6.0000e-005	5.7300e-003	4.0000e-005	5.7700e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.3593	5.3593	2.3000e-004	0.0000	5.3650
Total	4.2400e-003	0.0205	0.0304	1.0000e-004	6.4400e-003	7.0000e-005	6.5000e-003	1.7200e-003	6.0000e-005	1.7800e-003	0.0000	8.9139	8.9139	6.6000e-004	0.0000	8.9303

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3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1332	0.0000	0.1332	0.0625	0.0000	0.0625	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7368	19.1388	12.4772	0.0270		0.8250	0.8250		0.7654	0.7654	0.0000	2,359.4339	2,359.4339	0.7016	0.0000	2,376.9733
Total	1.7368	19.1388	12.4772	0.0270	0.1332	0.8250	0.9581	0.0625	0.7654	0.8279	0.0000	2,359.4339	2,359.4339	0.7016	0.0000	2,376.9733

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0468	2.1176	0.2470	4.4800e-003	0.0823	3.0900e-003	0.0854	0.0219	2.9600e-003	0.0249	0.0000	426.8562	426.8562	0.0514	0.0000	428.1412
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0590	0.0437	0.4347	9.1000e-004	0.0961	6.1000e-004	0.0967	0.0255	5.7000e-004	0.0261	0.0000	82.0695	82.0695	3.5300e-003	0.0000	82.1578
Total	0.1058	2.1614	0.6817	5.3900e-003	0.1784	3.7000e-003	0.1821	0.0474	3.5300e-003	0.0510	0.0000	508.9257	508.9257	0.0549	0.0000	510.2990

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3.3 Grading - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0467	0.0000	0.0467	0.0219	0.0000	0.0219	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4221	2.1336	14.5336	0.0270		0.0965	0.0965		0.0921	0.0921	0.0000	2,359.4311	2,359.4311	0.7016	0.0000	2,376.9705
Total	0.4221	2.1336	14.5336	0.0270	0.0467	0.0965	0.1432	0.0219	0.0921	0.1140	0.0000	2,359.4311	2,359.4311	0.7016	0.0000	2,376.9705

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0468	2.1176	0.2470	4.4800e-003	0.0756	3.0900e-003	0.0786	0.0203	2.9600e-003	0.0232	0.0000	426.8562	426.8562	0.0514	0.0000	428.1412
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0590	0.0437	0.4347	9.1000e-004	0.0878	6.1000e-004	0.0884	0.0235	5.7000e-004	0.0240	0.0000	82.0695	82.0695	3.5300e-003	0.0000	82.1578
Total	0.1058	2.1614	0.6817	5.3900e-003	0.1633	3.7000e-003	0.1670	0.0437	3.5300e-003	0.0472	0.0000	508.9257	508.9257	0.0549	0.0000	510.2990

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3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0741	0.0000	0.0741	0.0143	0.0000	0.0143	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1788	1.9236	1.3538	3.0100e-003		0.0818	0.0818		0.0759	0.0759	0.0000	263.5393	263.5393	0.0782	0.0000	265.4951
Total	0.1788	1.9236	1.3538	3.0100e-003	0.0741	0.0818	0.1559	0.0143	0.0759	0.0902	0.0000	263.5393	263.5393	0.0782	0.0000	265.4951

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.9700e-003	0.2244	0.0267	5.0000e-004	0.0695	3.0000e-004	0.0698	0.0172	2.9000e-004	0.0175	0.0000	47.2612	47.2612	5.4000e-003	0.0000	47.3962
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1300e-003	4.4300e-003	0.0449	1.0000e-004	0.0107	7.0000e-005	0.0108	2.8500e-003	6.0000e-005	2.9100e-003	0.0000	8.8567	8.8567	3.6000e-004	0.0000	8.8658
Total	0.0111	0.2289	0.0716	6.0000e-004	0.0802	3.7000e-004	0.0806	0.0201	3.5000e-004	0.0204	0.0000	56.1179	56.1179	5.7600e-003	0.0000	56.2619

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3.3 Grading - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0260	0.0000	0.0260	5.0100e-003	0.0000	5.0100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0468	0.2343	1.6220	3.0100e-003		0.0105	0.0105		0.0101	0.0101	0.0000	263.5390	263.5390	0.0782	0.0000	265.4948
Total	0.0468	0.2343	1.6220	3.0100e-003	0.0260	0.0105	0.0365	5.0100e-003	0.0101	0.0151	0.0000	263.5390	263.5390	0.0782	0.0000	265.4948

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.9700e-003	0.2244	0.0267	5.0000e-004	0.0627	3.0000e-004	0.0630	0.0156	2.9000e-004	0.0159	0.0000	47.2612	47.2612	5.4000e-003	0.0000	47.3962
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1300e-003	4.4300e-003	0.0449	1.0000e-004	9.8000e-003	7.0000e-005	9.8700e-003	2.6200e-003	6.0000e-005	2.6800e-003	0.0000	8.8567	8.8567	3.6000e-004	0.0000	8.8658
Total	0.0111	0.2289	0.0716	6.0000e-004	0.0725	3.7000e-004	0.0729	0.0182	3.5000e-004	0.0185	0.0000	56.1179	56.1179	5.7600e-003	0.0000	56.2619

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3.4 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.7380	7.6619	6.3620	0.0112		0.3821	0.3821		0.3583	0.3583	0.0000	974.6752	974.6752	0.2514	0.0000	980.9604
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.7380	7.6619	6.3620	0.0112		0.3821	0.3821		0.3583	0.3583	0.0000	974.6752	974.6752	0.2514	0.0000	980.9604

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0324	0.0240	0.2389	5.0000e-004	0.0528	3.4000e-004	0.0531	0.0140	3.1000e-004	0.0143	0.0000	45.1019	45.1019	1.9400e-003	0.0000	45.1504
Total	0.0324	0.0240	0.2389	5.0000e-004	0.0528	3.4000e-004	0.0531	0.0140	3.1000e-004	0.0143	0.0000	45.1019	45.1019	1.9400e-003	0.0000	45.1504

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

3.4 Paving - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2260	1.6091	7.1043	0.0112		0.0799	0.0799		0.0746	0.0746	0.0000	974.6740	974.6740	0.2514	0.0000	980.9592
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2260	1.6091	7.1043	0.0112		0.0799	0.0799		0.0746	0.0746	0.0000	974.6740	974.6740	0.2514	0.0000	980.9592

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0324	0.0240	0.2389	5.0000e-004	0.0482	3.4000e-004	0.0486	0.0129	3.1000e-004	0.0132	0.0000	45.1019	45.1019	1.9400e-003	0.0000	45.1504
Total	0.0324	0.0240	0.2389	5.0000e-004	0.0482	3.4000e-004	0.0486	0.0129	3.1000e-004	0.0132	0.0000	45.1019	45.1019	1.9400e-003	0.0000	45.1504

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3.4 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1610	1.6575	1.5141	2.6800e-003		0.0801	0.0801		0.0751	0.0751	0.0000	233.8753	233.8753	0.0600	0.0000	235.3760
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1610	1.6575	1.5141	2.6800e-003		0.0801	0.0801		0.0751	0.0751	0.0000	233.8753	233.8753	0.0600	0.0000	235.3760

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2400e-003	5.2400e-003	0.0530	1.2000e-004	0.0127	8.0000e-005	0.0128	3.3600e-003	7.0000e-005	3.4400e-003	0.0000	10.4602	10.4602	4.3000e-004	0.0000	10.4709
Total	7.2400e-003	5.2400e-003	0.0530	1.2000e-004	0.0127	8.0000e-005	0.0128	3.3600e-003	7.0000e-005	3.4400e-003	0.0000	10.4602	10.4602	4.3000e-004	0.0000	10.4709

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3.4 Paving - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0521	0.3621	1.7051	2.6800e-003		0.0176	0.0176		0.0165	0.0165	0.0000	233.8750	233.8750	0.0600	0.0000	235.3757
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0521	0.3621	1.7051	2.6800e-003		0.0176	0.0176		0.0165	0.0165	0.0000	233.8750	233.8750	0.0600	0.0000	235.3757

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2400e-003	5.2400e-003	0.0530	1.2000e-004	0.0116	8.0000e-005	0.0117	3.0900e-003	7.0000e-005	3.1700e-003	0.0000	10.4602	10.4602	4.3000e-004	0.0000	10.4709
Total	7.2400e-003	5.2400e-003	0.0530	1.2000e-004	0.0116	8.0000e-005	0.0117	3.0900e-003	7.0000e-005	3.1700e-003	0.0000	10.4602	10.4602	4.3000e-004	0.0000	10.4709

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.490441	0.036099	0.183975	0.121725	0.015214	0.005252	0.022424	0.112230	0.002972	0.001873	0.006187	0.000783	0.000825

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

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5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

Mitigated

[illegible]

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0787	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004
Unmitigated	0.0787	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0192					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0595					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004
Total	0.0787	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0192					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0595					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004
Total	0.0787	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004

7.0 Water Detail**7.1 Mitigation Measures Water**

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

CVWD CVSC Improvement Project: Proposed Project
Salton Sea Air Basin, Summer**1.0 Project Characteristics**

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	21.12	Acre	116.14	919,987.20	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

Project Characteristics -

Land Use - Project consists of concrete lined slopes and partial concrete lined channel bottom within stormwater channel.

Construction Phase - Assumes a 1-year buildout from March 2020 to March 2021.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineer.

Off-road Equipment - Equipment list provided by project engineer.

Trips and VMT - Haul trip lengths based on actual import/export locations within project area.

On-road Fugitive Dust - All roads within project area are paved.

Grading - Import/export quantities provided by project engineer. Includes concrete, reinforcing steel, and surplus soil based on 90% plans.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - Assumes adherence to standard dust control measures per SCAQMD Rule 401.3 (Coachella Valley) and use of oxidation catalysts on all construction equipment with a reduction equivalent of 30%.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	10
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	16.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblGrading	AcresOfGrading	2,325.00	116.00
tblGrading	AcresOfGrading	180.00	0.00
tblGrading	MaterialExported	0.00	370,000.00
tblGrading	MaterialImported	0.00	80,000.00
tblGrading	MaterialImported	0.00	4,500.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialSiltContent	6.90	2.00
tblGrading	MaterialSiltContent	6.90	0.00
tblLandUse	LotAcreage	21.12	116.14
tblOffRoadEquipment	HorsePower	64.00	247.00
tblOffRoadEquipment	LoadFactor	0.46	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	WorkerTripNumber	30.00	23.00
tblTripsAndVMT	WorkerTripNumber	120.00	118.00
tblTripsAndVMT	WorkerTripNumber	88.00	73.00

2.0 Emissions Summary

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	33.6013	369.4325	240.2523	0.5342	3.9480	15.6528	19.6008	1.3328	14.5439	15.8767	0.0000	51,979.34 26	51,979.34 26	13.7317	0.0000	52,322.63 39
2021	25.4269	274.9282	205.5111	0.4640	9.2828	11.2901	20.5729	2.6384	10.5103	13.1487	0.0000	45,162.01 77	45,162.01 77	11.5716	0.0000	45,451.30 75
Maximum	33.6013	369.4325	240.2523	0.5342	9.2828	15.6528	20.5729	2.6384	14.5439	15.8767	0.0000	51,979.34 26	51,979.34 26	13.7317	0.0000	52,322.63 39

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	12.3647	98.4397	275.3678	0.5342	2.8844	3.6662	6.5506	0.8702	3.4262	4.2963	0.0000	51,979.34 26	51,979.34 26	13.7317	0.0000	52,322.63 39
2021	8.2402	59.6661	238.9907	0.4640	7.6853	1.8311	9.5164	2.0444	1.7324	3.7768	0.0000	45,162.01 77	45,162.01 77	11.5716	0.0000	45,451.30 75
Maximum	12.3647	98.4397	275.3678	0.5342	7.6853	3.6662	9.5164	2.0444	3.4262	4.2963	0.0000	51,979.34 26	51,979.34 26	13.7317	0.0000	52,322.63 39

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	65.09	75.46	-15.39	0.00	20.11	79.60	60.01	26.61	79.41	72.19	0.00	0.00	0.00	0.00	0.00	0.00

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4312	2.0000e-005	2.1600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005		4.9300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.4312	2.0000e-005	2.1600e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005	0.0000	4.9300e-003

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4312	2.0000e-005	2.1600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005		4.9300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.4312	2.0000e-005	2.1600e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005	0.0000	4.9300e-003

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2020	6/1/2020	5	120	
2	Grading	Grading	4/1/2020	2/1/2021	5	310	
3	Paving	Paving	5/1/2020	3/1/2021	5	220	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 116

Acres of Paving: 116.14

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Bore/Drill Rigs	2	6.00	221	0.50
	Crawler Tractors	6	6.00	212	0.43
	Excavators	5	6.00	158	0.38
	Generator Sets	4	8.00	84	0.74
	Graders	2	6.00	187	0.41
	Off-Highway Tractors	2	6.00	124	0.44
	Off-Highway Trucks	4	6.00	402	0.38

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

	Other Construction Equipment	6	6.00	172	0.42
	Plate Compactors	4	6.00	8	0.43
	Rubber Tired Loaders	1	6.00	203	0.36
	Scrapers	6	6.00	367	0.48
	Sweepers/Scrubbers	1	6.00	64	0.46
	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Site Preparation	Crawler Tractors	2	6.00	212	0.43
Site Preparation	Excavators	2	6.00	158	0.38
Site Preparation	Graders	2	6.00	187	0.41
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Sweepers/Scrubbers	1	6.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Bore/Drill Rigs	2	6.00	221	0.50
Grading	Crawler Tractors	6	6.00	212	0.43
Grading	Excavators	5	6.00	158	0.38
Grading	Generator Sets	4	8.00	84	0.74
Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Tractors	2	6.00	124	0.44
Grading	Off-Highway Trucks	4	6.00	402	0.38
Grading	Other Construction Equipment	6	6.00	172	0.42
Grading	Plate Compactors	4	6.00	8	0.43
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	6.00	203	0.36
Grading	Scrapers	6	6.00	367	0.48
Grading	Sweepers/Scrubbers	1	6.00	64	0.46
Grading	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Paving	Concrete/Industrial Saws	1	6.00	81	0.73

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

Paving	Cranes	2	3.00	231	0.29
Paving	Crawler Tractors	1	6.00	212	0.43
Paving	Excavators	1	6.00	158	0.38
Paving	Generator Sets	4	8.00	84	0.74
Paving	Graders	2	6.00	187	0.41
Paving	Off-Highway Tractors	4	6.00	124	0.44
Paving	Other Construction Equipment	4	6.00	172	0.42
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Plate Compactors	4	6.00	8	0.43
Paving	Rollers	2	8.00	80	0.38
Paving	Rubber Tired Loaders	1	6.00	203	0.36
Paving	Sweepers/Scrubbers	1	6.00	64	0.46
Paving	Tractors/Loaders/Backhoes	4	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	12	23.00	0.00	445.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Grading	48	118.00	0.00	46,250.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Paving	35	73.00	0.00	0.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

Use Cleaner Engines for Construction Equipment
 Use Oxidation Catalyst for Construction Equipment
 Use Soil Stabilizer
 Replace Ground Cover
 Water Exposed Area
 Water Unpaved Roads
 Reduce Vehicle Speed on Unpaved Roads
 Clean Paved Roads

3.2 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.3200e-003	0.0000	4.3200e-003	6.5000e-004	0.0000	6.5000e-004			0.0000			0.0000
Off-Road	5.7729	64.6817	28.6731	0.0661		2.8675	2.8675		2.6381	2.6381		6,402.4267	6,402.4267	2.0707		6,454.1936
Total	5.7729	64.6817	28.6731	0.0661	4.3200e-003	2.8675	2.8718	6.5000e-004	2.6381	2.6388		6,402.4267	6,402.4267	2.0707		6,454.1936

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

3.2 Site Preparation - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0113	0.5357	0.0530	1.1700e-003	0.0237	7.6000e-004	0.0245	6.2500e-003	7.2000e-004	6.9700e-003		122.5201	122.5201	0.0136		122.8591
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1391	0.0856	1.0760	1.9900e-003	0.1924	1.2200e-003	0.1937	0.0510	1.1200e-003	0.0522		197.9714	197.9714	8.9500e-003		198.1951
Total	0.1504	0.6213	1.1291	3.1600e-003	0.2161	1.9800e-003	0.2181	0.0573	1.8400e-003	0.0591		320.4914	320.4914	0.0225		321.0542

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5200e-003	0.0000	1.5200e-003	2.3000e-004	0.0000	2.3000e-004			0.0000			0.0000
Off-Road	3.7356	35.5046	34.4282	0.0661		1.7312	1.7312		1.5980	1.5980	0.0000	6,402.4267	6,402.4267	2.0707		6,454.1936
Total	3.7356	35.5046	34.4282	0.0661	1.5200e-003	1.7312	1.7327	2.3000e-004	1.5980	1.5983	0.0000	6,402.4267	6,402.4267	2.0707		6,454.1936

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

3.2 Site Preparation - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0113	0.5357	0.0530	1.1700e-003	0.0217	7.6000e-004	0.0225	5.7600e-003	7.2000e-004	6.4800e-003		122.5201	122.5201	0.0136		122.8591
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1391	0.0856	1.0760	1.9900e-003	0.1757	1.2200e-003	0.1769	0.0469	1.1200e-003	0.0481		197.9714	197.9714	8.9500e-003		198.1951
Total	0.1504	0.6213	1.1291	3.1600e-003	0.1974	1.9800e-003	0.1994	0.0527	1.8400e-003	0.0545		320.4914	320.4914	0.0225		321.0542

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2840	0.0000	1.2840	0.6262	0.0000	0.6262			0.0000			0.0000
Off-Road	17.6328	194.3027	126.6723	0.2736		8.3754	8.3754		7.7706	7.7706		26,404.3727	26,404.3727	7.8513		26,600.6555
Total	17.6328	194.3027	126.6723	0.2736	1.2840	8.3754	9.6594	0.6262	7.7706	8.3967		26,404.3727	26,404.3727	7.8513		26,600.6555

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

3.3 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4557	21.5513	2.1338	0.0469	0.8455	0.0305	0.8760	0.2248	0.0292	0.2540		4,929.223 4	4,929.223 4	0.5456		4,942.863 7
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7137	0.4394	5.5204	0.0102	0.9873	6.2400e-003	0.9935	0.2619	5.7500e-003	0.2676		1,015.679 1	1,015.679 1	0.0459		1,016.827 1
Total	1.1694	21.9907	7.6542	0.0572	1.8328	0.0367	1.8695	0.4867	0.0349	0.5216		5,944.902 6	5,944.902 6	0.5915		5,959.690 7

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4507	0.0000	0.4507	0.2198	0.0000	0.2198			0.0000			0.0000
Off-Road	4.2852	21.6613	147.5490	0.2736		0.9793	0.9793		0.9349	0.9349	0.0000	26,404.37 27	26,404.37 27	7.8513		26,600.65 55
Total	4.2852	21.6613	147.5490	0.2736	0.4507	0.9793	1.4300	0.2198	0.9349	1.1547	0.0000	26,404.37 27	26,404.37 27	7.8513		26,600.65 55

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

3.3 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4557	21.5513	2.1338	0.0469	0.7756	0.0305	0.8061	0.2077	0.0292	0.2368		4,929.223 4	4,929.223 4	0.5456		4,942.863 7
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7137	0.4394	5.5204	0.0102	0.9015	6.2400e-003	0.9077	0.2408	5.7500e-003	0.2466		1,015.679 1	1,015.679 1	0.0459		1,016.827 1
Total	1.1694	21.9907	7.6542	0.0572	1.6771	0.0367	1.7138	0.4485	0.0349	0.4834		5,944.902 6	5,944.902 6	0.5915		5,959.690 7

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2840	0.0000	1.2840	0.6262	0.0000	0.6262			0.0000			0.0000
Off-Road	16.2552	174.8762	123.0693	0.2737		7.4379	7.4379		6.8989	6.8989		26,409.30 34	26,409.30 34	7.8398		26,605.29 72
Total	16.2552	174.8762	123.0693	0.2737	1.2840	7.4379	8.7219	0.6262	6.8989	7.5251		26,409.30 34	26,409.30 34	7.8398		26,605.29 72

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

3.3 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4329	20.4763	2.0687	0.0465	6.4008	0.0264	6.4272	1.5884	0.0253	1.6136		4,887.649 2	4,887.649 2	0.5129		4,900.472 4
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6632	0.3990	5.1114	9.8800e-003	0.9873	6.0800e-003	0.9934	0.2619	5.6000e-003	0.2675		981.5081	981.5081	0.0420		982.5582
Total	1.0961	20.8754	7.1800	0.0564	7.3881	0.0325	7.4206	1.8502	0.0309	1.8811		5,869.157 3	5,869.157 3	0.5549		5,883.030 6

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4507	0.0000	0.4507	0.2198	0.0000	0.2198			0.0000			0.0000
Off-Road	4.2521	21.3004	147.4552	0.2737		0.9568	0.9568		0.9142	0.9142	0.0000	26,409.30 34	26,409.30 34	7.8398		26,605.29 72
Total	4.2521	21.3004	147.4552	0.2737	0.4507	0.9568	1.4074	0.2198	0.9142	1.1340	0.0000	26,409.30 34	26,409.30 34	7.8398		26,605.29 72

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4329	20.4763	2.0687	0.0465	5.7754	0.0264	5.8018	1.4349	0.0253	1.4601		4,887.649 2	4,887.649 2	0.5129		4,900.472 4
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6632	0.3990	5.1114	9.8800e-003	0.9015	6.0800e-003	0.9076	0.2408	5.6000e-003	0.2464		981.5081	981.5081	0.0420		982.5582
Total	1.0961	20.8754	7.1800	0.0564	6.6769	0.0325	6.7094	1.6757	0.0309	1.7066		5,869.157 3	5,869.157 3	0.5549		5,883.030 6

3.4 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	8.4343	87.5643	72.7085	0.1279		4.3673	4.3673		4.0950	4.0950		12,278.80 54	12,278.80 54	3.1672		12,357.98 58
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	8.4343	87.5643	72.7085	0.1279		4.3673	4.3673		4.0950	4.0950		12,278.80 54	12,278.80 54	3.1672		12,357.98 58

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

3.4 Paving - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4415	0.2718	3.4152	6.3300e-003	0.6108	3.8600e-003	0.6146	0.1620	3.5500e-003	0.1656		628.3439	628.3439	0.0284		629.0540
Total	0.4415	0.2718	3.4152	6.3300e-003	0.6108	3.8600e-003	0.6146	0.1620	3.5500e-003	0.1656		628.3439	628.3439	0.0284		629.0540

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5827	18.3900	81.1922	0.1279		0.9132	0.9132		0.8529	0.8529	0.0000	12,278.8053	12,278.8053	3.1672		12,357.9858
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.5827	18.3900	81.1922	0.1279		0.9132	0.9132		0.8529	0.8529	0.0000	12,278.8053	12,278.8053	3.1672		12,357.9858

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

3.4 Paving - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4415	0.2718	3.4152	6.3300e-003	0.5577	3.8600e-003	0.5616	0.1490	3.5500e-003	0.1525		628.3439	628.3439	0.0284		629.0540
Total	0.4415	0.2718	3.4152	6.3300e-003	0.5577	3.8600e-003	0.5616	0.1490	3.5500e-003	0.1525		628.3439	628.3439	0.0284		629.0540

3.4 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	7.6653	78.9298	72.0997	0.1278		3.8159	3.8159		3.5770	3.5770		12,276.3528	12,276.3528	3.1509		12,355.1259
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	7.6653	78.9298	72.0997	0.1278		3.8159	3.8159		3.5770	3.5770		12,276.3528	12,276.3528	3.1509		12,355.1259

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

3.4 Paving - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4103	0.2469	3.1621	6.1100e-003	0.6108	3.7600e-003	0.6145	0.1620	3.4700e-003	0.1655		607.2042	607.2042	0.0260		607.8538
Total	0.4103	0.2469	3.1621	6.1100e-003	0.6108	3.7600e-003	0.6145	0.1620	3.4700e-003	0.1655		607.2042	607.2042	0.0260		607.8538

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4817	17.2435	81.1933	0.1278		0.8381	0.8381		0.7839	0.7839	0.0000	12,276.3528	12,276.3528	3.1509		12,355.1259
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4817	17.2435	81.1933	0.1278		0.8381	0.8381		0.7839	0.7839	0.0000	12,276.3528	12,276.3528	3.1509		12,355.1259

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

3.4 Paving - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4103	0.2469	3.1621	6.1100e-003	0.5577	3.7600e-003	0.5615	0.1490	3.4700e-003	0.1524		607.2042	607.2042	0.0260		607.8538
Total	0.4103	0.2469	3.1621	6.1100e-003	0.5577	3.7600e-003	0.5615	0.1490	3.4700e-003	0.1524		607.2042	607.2042	0.0260		607.8538

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.490441	0.036099	0.183975	0.121725	0.015214	0.005252	0.022424	0.112230	0.002972	0.001873	0.006187	0.000783	0.000825

5.0 Energy Detail

Historical Energy Use: N

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4312	2.0000e-005	2.1600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005		4.9300e-003
Unmitigated	0.4312	2.0000e-005	2.1600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005		4.9300e-003

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1051					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3259					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005		4.9300e-003
Total	0.4312	2.0000e-005	2.1600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005		4.9300e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1051					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3259					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005		4.9300e-003
Total	0.4312	2.0000e-005	2.1600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005		4.9300e-003

7.0 Water Detail

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Summer

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

CVWD CVSC Improvement Project: Proposed Project
Salton Sea Air Basin, Winter**1.0 Project Characteristics**

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	21.12	Acre	116.14	919,987.20	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

Project Characteristics -

Land Use - Project consists of concrete lined slopes and partial concrete lined channel bottom within stormwater channel.

Construction Phase - Assumes a 1-year buildout from March 2020 to March 2021.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineer.

Off-road Equipment - Equipment list provided by project engineer.

Trips and VMT - Haul trip lengths based on actual import/export locations within project area.

On-road Fugitive Dust - All roads within project area are paved.

Grading - Import/export quantities provided by project engineer. Includes concrete, reinforcing steel, and surplus soil based on 90% plans.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - Assumes adherence to standard dust control measures per SCAQMD Rule 401.3 (Coachella Valley) and use of oxidation catalysts on all construction equipment with a reduction equivalent of 30%.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	10
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	16.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	OxidationCatalyst	0.00	30.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblGrading	AcresOfGrading	2,325.00	116.00
tblGrading	AcresOfGrading	180.00	0.00
tblGrading	MaterialExported	0.00	370,000.00
tblGrading	MaterialImported	0.00	80,000.00
tblGrading	MaterialImported	0.00	4,500.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialSiltContent	6.90	2.00
tblGrading	MaterialSiltContent	6.90	0.00
tblLandUse	LotAcreage	21.12	116.14
tblOffRoadEquipment	HorsePower	64.00	247.00
tblOffRoadEquipment	LoadFactor	0.46	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	WorkerTripNumber	30.00	23.00
tblTripsAndVMT	WorkerTripNumber	120.00	118.00
tblTripsAndVMT	WorkerTripNumber	88.00	73.00

2.0 Emissions Summary

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	33.4226	368.9846	238.3382	0.5276	3.9480	15.6550	19.6030	1.3328	14.5460	15.8788	0.0000	51,313.47 84	51,313.47 84	13.7875	0.0000	51,658.16 56
2021	25.2873	274.4815	204.0072	0.4580	9.2828	11.2920	20.5748	2.6384	10.5121	13.1505	0.0000	44,547.26 60	44,547.26 60	11.6252	0.0000	44,837.89 68
Maximum	33.4226	368.9846	238.3382	0.5276	9.2828	15.6550	20.5748	2.6384	14.5460	15.8788	0.0000	51,313.47 84	51,313.47 84	13.7875	0.0000	51,658.16 56

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	12.1860	97.9919	273.4537	0.5276	2.8844	3.6684	6.5528	0.8702	3.4282	4.2984	0.0000	51,313.47 83	51,313.47 83	13.7875	0.0000	51,658.16 56
2021	8.1006	59.2195	237.4867	0.4580	7.6853	1.8331	9.5183	2.0444	1.7342	3.7787	0.0000	44,547.26 60	44,547.26 60	11.6252	0.0000	44,837.89 68
Maximum	12.1860	97.9919	273.4537	0.5276	7.6853	3.6684	9.5183	2.0444	3.4282	4.2984	0.0000	51,313.47 83	51,313.47 83	13.7875	0.0000	51,658.16 56

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	65.45	75.57	-15.51	0.00	20.11	79.58	60.00	26.61	79.40	72.18	0.00	0.00	0.00	0.00	0.00	0.00

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4312	2.0000e-005	2.1600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005		4.9300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.4312	2.0000e-005	2.1600e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005	0.0000	4.9300e-003

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4312	2.0000e-005	2.1600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005		4.9300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.4312	2.0000e-005	2.1600e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005	0.0000	4.9300e-003

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2020	6/1/2020	5	120	
2	Grading	Grading	4/1/2020	2/1/2021	5	310	
3	Paving	Paving	5/1/2020	3/1/2021	5	220	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 116

Acres of Paving: 116.14

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Bore/Drill Rigs	2	6.00	221	0.50
	Crawler Tractors	6	6.00	212	0.43
	Excavators	5	6.00	158	0.38
	Generator Sets	4	8.00	84	0.74
	Graders	2	6.00	187	0.41
	Off-Highway Tractors	2	6.00	124	0.44
	Off-Highway Trucks	4	6.00	402	0.38

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

	Other Construction Equipment	6	6.00	172	0.42
	Plate Compactors	4	6.00	8	0.43
	Rubber Tired Loaders	1	6.00	203	0.36
	Scrapers	6	6.00	367	0.48
	Sweepers/Scrubbers	1	6.00	64	0.46
	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Site Preparation	Crawler Tractors	2	6.00	212	0.43
Site Preparation	Excavators	2	6.00	158	0.38
Site Preparation	Graders	2	6.00	187	0.41
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Sweepers/Scrubbers	1	6.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Bore/Drill Rigs	2	6.00	221	0.50
Grading	Crawler Tractors	6	6.00	212	0.43
Grading	Excavators	5	6.00	158	0.38
Grading	Generator Sets	4	8.00	84	0.74
Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Tractors	2	6.00	124	0.44
Grading	Off-Highway Trucks	4	6.00	402	0.38
Grading	Other Construction Equipment	6	6.00	172	0.42
Grading	Plate Compactors	4	6.00	8	0.43
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	6.00	203	0.36
Grading	Scrapers	6	6.00	367	0.48
Grading	Sweepers/Scrubbers	1	6.00	64	0.46
Grading	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Paving	Concrete/Industrial Saws	1	6.00	81	0.73

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

Paving	Cranes	2	3.00	231	0.29
Paving	Crawler Tractors	1	6.00	212	0.43
Paving	Excavators	1	6.00	158	0.38
Paving	Generator Sets	4	8.00	84	0.74
Paving	Graders	2	6.00	187	0.41
Paving	Off-Highway Tractors	4	6.00	124	0.44
Paving	Other Construction Equipment	4	6.00	172	0.42
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Plate Compactors	4	6.00	8	0.43
Paving	Rollers	2	8.00	80	0.38
Paving	Rubber Tired Loaders	1	6.00	203	0.36
Paving	Sweepers/Scrubbers	1	6.00	64	0.46
Paving	Tractors/Loaders/Backhoes	4	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	12	23.00	0.00	445.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Grading	48	118.00	0.00	46,250.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Paving	35	73.00	0.00	0.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

Use Cleaner Engines for Construction Equipment
 Use Oxidation Catalyst for Construction Equipment
 Use Soil Stabilizer
 Replace Ground Cover
 Water Exposed Area
 Water Unpaved Roads
 Reduce Vehicle Speed on Unpaved Roads
 Clean Paved Roads

3.2 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.3200e-003	0.0000	4.3200e-003	6.5000e-004	0.0000	6.5000e-004			0.0000			0.0000
Off-Road	5.7729	64.6817	28.6731	0.0661		2.8675	2.8675		2.6381	2.6381		6,402.4267	6,402.4267	2.0707		6,454.1936
Total	5.7729	64.6817	28.6731	0.0661	4.3200e-003	2.8675	2.8718	6.5000e-004	2.6381	2.6388		6,402.4267	6,402.4267	2.0707		6,454.1936

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

3.2 Site Preparation - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0125	0.5242	0.0756	1.0800e-003	0.0237	8.1000e-004	0.0245	6.2500e-003	7.7000e-004	7.0200e-003		113.5078	113.5078	0.0153		113.8912
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1146	0.0883	0.7705	1.6700e-003	0.1924	1.2200e-003	0.1937	0.0510	1.1200e-003	0.0522		166.3443	166.3443	7.0800e-003		166.5212
Total	0.1271	0.6125	0.8461	2.7500e-003	0.2161	2.0300e-003	0.2182	0.0573	1.8900e-003	0.0592		279.8521	279.8521	0.0224		280.4124

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5200e-003	0.0000	1.5200e-003	2.3000e-004	0.0000	2.3000e-004			0.0000			0.0000
Off-Road	3.7356	35.5046	34.4282	0.0661		1.7312	1.7312		1.5980	1.5980	0.0000	6,402.4267	6,402.4267	2.0707		6,454.1936
Total	3.7356	35.5046	34.4282	0.0661	1.5200e-003	1.7312	1.7327	2.3000e-004	1.5980	1.5983	0.0000	6,402.4267	6,402.4267	2.0707		6,454.1936

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

3.2 Site Preparation - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0125	0.5242	0.0756	1.0800e-003	0.0217	8.1000e-004	0.0225	5.7600e-003	7.7000e-004	6.5300e-003		113.5078	113.5078	0.0153		113.8912
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1146	0.0883	0.7705	1.6700e-003	0.1757	1.2200e-003	0.1769	0.0469	1.1200e-003	0.0481		166.3443	166.3443	7.0800e-003		166.5212
Total	0.1271	0.6125	0.8461	2.7500e-003	0.1974	2.0300e-003	0.1995	0.0527	1.8900e-003	0.0546		279.8521	279.8521	0.0224		280.4124

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2840	0.0000	1.2840	0.6262	0.0000	0.6262			0.0000			0.0000
Off-Road	17.6328	194.3027	126.6723	0.2736		8.3754	8.3754		7.7706	7.7706		26,404.3727	26,404.3727	7.8513		26,600.6555
Total	17.6328	194.3027	126.6723	0.2736	1.2840	8.3754	9.6594	0.6262	7.7706	8.3967		26,404.3727	26,404.3727	7.8513		26,600.6555

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

3.3 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5038	21.0904	3.0398	0.0435	0.8455	0.0326	0.8781	0.2248	0.0312	0.2560		4,566.6407	4,566.6407	0.6171		4,582.0685
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5880	0.4529	3.9530	8.5800e-003	0.9873	6.2400e-003	0.9935	0.2619	5.7500e-003	0.2676		853.4185	853.4185	0.0363		854.3261
Total	1.0918	21.5433	6.9927	0.0521	1.8328	0.0388	1.8716	0.4867	0.0369	0.5236		5,420.0593	5,420.0593	0.6534		5,436.3945

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4507	0.0000	0.4507	0.2198	0.0000	0.2198			0.0000			0.0000
Off-Road	4.2852	21.6613	147.5490	0.2736		0.9793	0.9793		0.9349	0.9349	0.0000	26,404.3727	26,404.3727	7.8513		26,600.6555
Total	4.2852	21.6613	147.5490	0.2736	0.4507	0.9793	1.4300	0.2198	0.9349	1.1547	0.0000	26,404.3727	26,404.3727	7.8513		26,600.6555

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

3.3 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5038	21.0904	3.0398	0.0435	0.7756	0.0326	0.8082	0.2077	0.0312	0.2388		4,566.6407	4,566.6407	0.6171		4,582.0685
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5880	0.4529	3.9530	8.5800e-003	0.9015	6.2400e-003	0.9077	0.2408	5.7500e-003	0.2466		853.4185	853.4185	0.0363		854.3261
Total	1.0918	21.5433	6.9927	0.0521	1.6771	0.0388	1.7159	0.4485	0.0369	0.4854		5,420.0593	5,420.0593	0.6534		5,436.3945

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2840	0.0000	1.2840	0.6262	0.0000	0.6262			0.0000			0.0000
Off-Road	16.2552	174.8762	123.0693	0.2737		7.4379	7.4379		6.8989	6.8989		26,409.3034	26,409.3034	7.8398		26,605.2972
Total	16.2552	174.8762	123.0693	0.2737	1.2840	7.4379	8.7219	0.6262	6.8989	7.5251		26,409.3034	26,409.3034	7.8398		26,605.2972

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

3.3 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4789	20.0105	2.9331	0.0431	6.4008	0.0284	6.4292	1.5884	0.0271	1.6155		4,526.6939	4,526.6939	0.5807		4,541.2122
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5486	0.4109	3.6482	8.2900e-003	0.9873	6.0800e-003	0.9934	0.2619	5.6000e-003	0.2675		824.7124	824.7124	0.0333		825.5438
Total	1.0275	20.4214	6.5813	0.0514	7.3881	0.0344	7.4225	1.8502	0.0327	1.8830		5,351.4064	5,351.4064	0.6140		5,366.7560

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4507	0.0000	0.4507	0.2198	0.0000	0.2198			0.0000			0.0000
Off-Road	4.2521	21.3004	147.4552	0.2737		0.9568	0.9568		0.9142	0.9142	0.0000	26,409.3034	26,409.3034	7.8398		26,605.2972
Total	4.2521	21.3004	147.4552	0.2737	0.4507	0.9568	1.4074	0.2198	0.9142	1.1340	0.0000	26,409.3034	26,409.3034	7.8398		26,605.2972

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4789	20.0105	2.9331	0.0431	5.7754	0.0284	5.8038	1.4349	0.0271	1.4620		4,526.693 9	4,526.693 9	0.5807		4,541.212 2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5486	0.4109	3.6482	8.2900e-003	0.9015	6.0800e-003	0.9076	0.2408	5.6000e-003	0.2464		824.7124	824.7124	0.0333		825.5438
Total	1.0275	20.4214	6.5813	0.0514	6.6769	0.0344	6.7113	1.6757	0.0327	1.7084		5,351.406 4	5,351.406 4	0.6140		5,366.756 0

3.4 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	8.4343	87.5643	72.7085	0.1279		4.3673	4.3673		4.0950	4.0950		12,278.80 54	12,278.80 54	3.1672		12,357.98 58
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	8.4343	87.5643	72.7085	0.1279		4.3673	4.3673		4.0950	4.0950		12,278.80 54	12,278.80 54	3.1672		12,357.98 58

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

3.4 Paving - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3637	0.2802	2.4455	5.3100e-003	0.6108	3.8600e-003	0.6146	0.1620	3.5500e-003	0.1656		527.9623	527.9623	0.0225		528.5238
Total	0.3637	0.2802	2.4455	5.3100e-003	0.6108	3.8600e-003	0.6146	0.1620	3.5500e-003	0.1656		527.9623	527.9623	0.0225		528.5238

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5827	18.3900	81.1922	0.1279		0.9132	0.9132		0.8529	0.8529	0.0000	12,278.8053	12,278.8053	3.1672		12,357.9858
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.5827	18.3900	81.1922	0.1279		0.9132	0.9132		0.8529	0.8529	0.0000	12,278.8053	12,278.8053	3.1672		12,357.9858

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

3.4 Paving - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3637	0.2802	2.4455	5.3100e-003	0.5577	3.8600e-003	0.5616	0.1490	3.5500e-003	0.1525		527.9623	527.9623	0.0225		528.5238
Total	0.3637	0.2802	2.4455	5.3100e-003	0.5577	3.8600e-003	0.5616	0.1490	3.5500e-003	0.1525		527.9623	527.9623	0.0225		528.5238

3.4 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	7.6653	78.9298	72.0997	0.1278		3.8159	3.8159		3.5770	3.5770		12,276.3528	12,276.3528	3.1509		12,355.1259
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	7.6653	78.9298	72.0997	0.1278		3.8159	3.8159		3.5770	3.5770		12,276.3528	12,276.3528	3.1509		12,355.1259

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

3.4 Paving - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3394	0.2542	2.2570	5.1300e-003	0.6108	3.7600e-003	0.6145	0.1620	3.4700e-003	0.1655		510.2035	510.2035	0.0206		510.7178
Total	0.3394	0.2542	2.2570	5.1300e-003	0.6108	3.7600e-003	0.6145	0.1620	3.4700e-003	0.1655		510.2035	510.2035	0.0206		510.7178

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4817	17.2435	81.1933	0.1278		0.8381	0.8381		0.7839	0.7839	0.0000	12,276.3528	12,276.3528	3.1509		12,355.1259
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4817	17.2435	81.1933	0.1278		0.8381	0.8381		0.7839	0.7839	0.0000	12,276.3528	12,276.3528	3.1509		12,355.1259

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

3.4 Paving - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3394	0.2542	2.2570	5.1300e-003	0.5577	3.7600e-003	0.5615	0.1490	3.4700e-003	0.1524		510.2035	510.2035	0.0206		510.7178
Total	0.3394	0.2542	2.2570	5.1300e-003	0.5577	3.7600e-003	0.5615	0.1490	3.4700e-003	0.1524		510.2035	510.2035	0.0206		510.7178

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.490441	0.036099	0.183975	0.121725	0.015214	0.005252	0.022424	0.112230	0.002972	0.001873	0.006187	0.000783	0.000825

5.0 Energy Detail

Historical Energy Use: N

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4312	2.0000e-005	2.1600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005		4.9300e-003
Unmitigated	0.4312	2.0000e-005	2.1600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005		4.9300e-003

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1051					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3259					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005		4.9300e-003
Total	0.4312	2.0000e-005	2.1600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005		4.9300e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1051					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3259					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005		4.9300e-003
Total	0.4312	2.0000e-005	2.1600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.6200e-003	4.6200e-003	1.0000e-005		4.9300e-003

7.0 Water Detail

CVWD CVSC Improvement Project: Proposed Project - Salton Sea Air Basin, Winter

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Alternative B

CVSC Improvement Project Air Emission Outputs
CalEEMod Version 2016.3.1

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

CVWD CVSC Improvement Project: Alt. B Fully Lined
Salton Sea Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	47.65	Acre	116.15	2,075,634.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

Project Characteristics -

Land Use - Project consists of a fully lined channel.

Construction Phase - Assumes a 2-year buildout from March 2020 to March 2022.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineer.

Off-road Equipment - Equipment list provided by project engineer.

Trips and VMT - Haul trip lengths based on actual import/export locations within project area.

On-road Fugitive Dust - All roads within project area are paved.

Grading - Import/export quantities provided by project engineer. Includes concrete, reinforcing steel, and surplus soil.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - Assumes adherence to standard dust control measures per SCAQMD Rule 401.3 (Coachella Valley) and use of oxidation catalysts on all construction equipment with a reduction equivalent of 30%.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	10
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

[illegible]

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	310.00	480.00
tblConstructionPhase	NumDays	220.00	478.00
tblGrading	AcresOfGrading	3,600.00	116.00
tblGrading	AcresOfGrading	180.00	0.00
tblGrading	MaterialExported	0.00	319,000.00
tblGrading	MaterialImported	0.00	114,800.00
tblGrading	MaterialImported	0.00	9,503.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialSiltContent	6.90	2.00
tblGrading	MaterialSiltContent	6.90	0.00
tblLandUse	LotAcreage	47.65	116.15
tblOffRoadEquipment	HorsePower	64.00	247.00
tblOffRoadEquipment	LoadFactor	0.46	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	WorkerTripNumber	30.00	23.00
tblTripsAndVMT	WorkerTripNumber	120.00	118.00
tblTripsAndVMT	WorkerTripNumber	88.00	73.00

2.0 Emissions Summary

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	2.7875	30.2222	20.6292	0.0444	0.4789	1.3045	1.7835	0.2027	1.2134	1.4161	0.0000	3,903.497 5	3,903.497 5	1.0502	0.0000	3,929.752 5
2021	3.2723	34.6894	26.5080	0.0576	0.5305	1.4719	2.0024	0.2167	1.3702	1.5869	0.0000	5,062.177 3	5,062.177 3	1.3438	0.0000	5,095.771 4
2022	0.3177	3.2015	2.9011	6.1800e-003	0.3381	0.1372	0.4753	0.1646	0.1280	0.2927	0.0000	542.1235	542.1235	0.1415	0.0000	545.6613
Maximum	3.2723	34.6894	26.5080	0.0576	0.5305	1.4719	2.0024	0.2167	1.3702	1.5869	0.0000	5,062.177 3	5,062.177 3	1.3438	0.0000	5,095.771 4

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.8935	6.2014	23.6178	0.0444	0.2936	0.2363	0.5299	0.1046	0.2221	0.3267	0.0000	3,903.493 3	3,903.493 3	1.0502	0.0000	3,929.748 3
2021	1.0294	6.5977	30.8770	0.0576	0.3411	0.2375	0.5786	0.1176	0.2247	0.3422	0.0000	5,062.171 8	5,062.171 8	1.3438	0.0000	5,095.765 9
2022	0.1085	0.6615	3.4249	6.1800e-003	0.1645	0.0248	0.1894	0.0694	0.0235	0.0929	0.0000	542.1229	542.1229	0.1415	0.0000	545.6607
Maximum	1.0294	6.5977	30.8770	0.0576	0.3411	0.2375	0.5786	0.1176	0.2247	0.3422	0.0000	5,062.171 8	5,062.171 8	1.3438	0.0000	5,095.765 9

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	68.15	80.24	-15.75	0.00	40.69	82.89	69.54	50.07	82.66	76.88	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2020	5-31-2020	8.3398	2.4316
2	6-1-2020	8-31-2020	10.6074	2.0201
3	9-1-2020	11-30-2020	10.4578	1.9748
4	12-1-2020	2-28-2021	9.6863	1.8984
5	3-1-2021	5-31-2021	9.5599	1.9223
6	6-1-2021	8-31-2021	9.5643	1.9267
7	9-1-2021	11-30-2021	9.4517	1.8971
8	12-1-2021	2-28-2022	6.8152	1.4289
9	3-1-2022	5-31-2022	0.0273	0.0065
		Highest	10.6074	2.4316

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1775	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1775	0.0000	4.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1775	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1775	0.0000	4.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2020	6/1/2020	5	120	
2	Grading	Grading	4/1/2020	2/1/2022	5	480	
3	Paving	Paving	5/1/2020	3/1/2022	5	478	

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 116****Acres of Paving: 116.15****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Bore/Drill Rigs	2	6.00	221	0.50
	Crawler Tractors	6	6.00	212	0.43
	Excavators	5	6.00	158	0.38
	Generator Sets	4	8.00	84	0.74
	Graders	2	6.00	187	0.41
	Off-Highway Tractors	2	6.00	124	0.44
	Off-Highway Trucks	4	6.00	402	0.38
	Other Construction Equipment	6	6.00	172	0.42
	Plate Compactors	4	6.00	8	0.43
	Rubber Tired Loaders	1	6.00	203	0.36
	Scrapers	6	6.00	367	0.48
	Sweepers/Scrubbers	1	6.00	64	0.46
	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Site Preparation	Crawler Tractors	2	6.00	212	0.43
Site Preparation	Excavators	2	6.00	158	0.38
Site Preparation	Graders	2	6.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Site Preparation	Sweepers/Scrubbers	1	6.00	247	0.40

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

Site Preparation	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Bore/Drill Rigs	2	6.00	221	0.50
Grading	Crawler Tractors	6	6.00	212	0.43
Grading	Excavators	5	6.00	158	0.38
Grading	Generator Sets	4	8.00	84	0.74
Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Tractors	2	6.00	124	0.44
Grading	Off-Highway Trucks	4	6.00	402	0.38
Grading	Other Construction Equipment	6	6.00	172	0.42
Grading	Plate Compactors	4	6.00	8	0.43
Paving	Paving Equipment	2	8.00	132	0.36
Grading	Rubber Tired Loaders	1	6.00	203	0.36
Grading	Scrapers	6	6.00	367	0.48
Grading	Sweepers/Scrubbers	1	6.00	64	0.46
Grading	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Paving	Concrete/Industrial Saws	1	6.00	81	0.73
Paving	Cranes	2	3.00	231	0.29
Paving	Crawler Tractors	1	6.00	212	0.43
Paving	Excavators	1	6.00	158	0.38
Paving	Generator Sets	4	8.00	84	0.74
Paving	Graders	2	6.00	187	0.41
Paving	Off-Highway Tractors	4	6.00	124	0.44
Paving	Other Construction Equipment	4	6.00	172	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Paving	Plate Compactors	4	6.00	8	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

Paving	Rubber Tired Loaders	1	6.00	203	0.36
Paving	Sweepers/Scrubbers	1	6.00	64	0.46
Paving	Tractors/Loaders/Backhoes	4	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	12	23.00	0.00	940.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Grading	48	118.00	0.00	39,875.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Paving	35	73.00	0.00	0.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment
 Use Oxidation Catalyst for Construction Equipment
 Use Soil Stabilizer
 Replace Ground Cover
 Water Exposed Area
 Water Unpaved Roads
 Reduce Vehicle Speed on Unpaved Roads
 Clean Paved Roads

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

3.2 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.0000e-004	0.0000	3.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1905	2.1345	0.9462	2.1800e-003		0.0946	0.0946		0.0871	0.0871	0.0000	191.6701	191.6701	0.0620	0.0000	193.2198
Total	0.1905	2.1345	0.9462	2.1800e-003	3.0000e-004	0.0946	0.0949	5.0000e-005	0.0871	0.0871	0.0000	191.6701	191.6701	0.0620	0.0000	193.2198

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.2000e-004	0.0373	4.3500e-003	8.0000e-005	1.6300e-003	5.0000e-005	1.6900e-003	4.3000e-004	5.0000e-005	4.8000e-004	0.0000	7.5086	7.5086	9.0000e-004	0.0000	7.5312
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8500e-003	2.8600e-003	0.0284	6.0000e-005	6.2700e-003	4.0000e-005	6.3100e-003	1.6700e-003	4.0000e-005	1.7000e-003	0.0000	5.3593	5.3593	2.3000e-004	0.0000	5.3650
Total	4.6700e-003	0.0401	0.0327	1.4000e-004	7.9000e-003	9.0000e-005	8.0000e-003	2.1000e-003	9.0000e-005	2.1800e-003	0.0000	12.8678	12.8678	1.1300e-003	0.0000	12.8962

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

3.2 Site Preparation - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1000e-004	0.0000	1.1000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1233	1.1717	1.1361	2.1800e-003		0.0571	0.0571		0.0527	0.0527	0.0000	191.6698	191.6698	0.0620	0.0000	193.2196
Total	0.1233	1.1717	1.1361	2.1800e-003	1.1000e-004	0.0571	0.0572	2.0000e-005	0.0527	0.0528	0.0000	191.6698	191.6698	0.0620	0.0000	193.2196

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.2000e-004	0.0373	4.3500e-003	8.0000e-005	1.5000e-003	5.0000e-005	1.5500e-003	4.0000e-004	5.0000e-005	4.5000e-004	0.0000	7.5086	7.5086	9.0000e-004	0.0000	7.5312
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8500e-003	2.8600e-003	0.0284	6.0000e-005	5.7300e-003	4.0000e-005	5.7700e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.3593	5.3593	2.3000e-004	0.0000	5.3650
Total	4.6700e-003	0.0401	0.0327	1.4000e-004	7.2300e-003	9.0000e-005	7.3200e-003	1.9300e-003	9.0000e-005	2.0200e-003	0.0000	12.8678	12.8678	1.1300e-003	0.0000	12.8962

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2553	0.0000	0.2553	0.1437	0.0000	0.1437	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7368	19.1388	12.4772	0.0270		0.8250	0.8250		0.7654	0.7654	0.0000	2,359.4339	2,359.4339	0.7016	0.0000	2,376.9733
Total	1.7368	19.1388	12.4772	0.0270	0.2553	0.8250	1.0802	0.1437	0.7654	0.9091	0.0000	2,359.4339	2,359.4339	0.7016	0.0000	2,376.9733

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0261	1.1791	0.1376	2.4900e-003	0.0666	1.7200e-003	0.0683	0.0173	1.6500e-003	0.0189	0.0000	237.6791	237.6791	0.0286	0.0000	238.3946
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0590	0.0437	0.4347	9.1000e-004	0.0961	6.1000e-004	0.0967	0.0255	5.7000e-004	0.0261	0.0000	82.0695	82.0695	3.5300e-003	0.0000	82.1578
Total	0.0850	1.2229	0.5722	3.4000e-003	0.1627	2.3300e-003	0.1650	0.0428	2.2200e-003	0.0450	0.0000	319.7486	319.7486	0.0322	0.0000	320.5524

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

3.3 Grading - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0896	0.0000	0.0896	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4221	2.1336	14.5336	0.0270		0.0965	0.0965		0.0921	0.0921	0.0000	2,359.4311	2,359.4311	0.7016	0.0000	2,376.9705
Total	0.4221	2.1336	14.5336	0.0270	0.0896	0.0965	0.1861	0.0505	0.0921	0.1425	0.0000	2,359.4311	2,359.4311	0.7016	0.0000	2,376.9705

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0261	1.1791	0.1376	2.4900e-003	0.0607	1.7200e-003	0.0624	0.0159	1.6500e-003	0.0175	0.0000	237.6791	237.6791	0.0286	0.0000	238.3946
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0590	0.0437	0.4347	9.1000e-004	0.0878	6.1000e-004	0.0884	0.0235	5.7000e-004	0.0240	0.0000	82.0695	82.0695	3.5300e-003	0.0000	82.1578
Total	0.0850	1.2229	0.5722	3.4000e-003	0.1485	2.3300e-003	0.1508	0.0393	2.2200e-003	0.0415	0.0000	319.7486	319.7486	0.0322	0.0000	320.5524

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2553	0.0000	0.2553	0.1437	0.0000	0.1437	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1213	22.8214	16.0605	0.0357		0.9707	0.9707		0.9003	0.9003	0.0000	3,126.534 3	3,126.534 3	0.9281	0.0000	3,149.737 5
Total	2.1213	22.8214	16.0605	0.0357	0.2553	0.9707	1.2259	0.1437	0.9003	1.0441	0.0000	3,126.534 3	3,126.534 3	0.9281	0.0000	3,149.737 5

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0328	1.4826	0.1763	3.2800e-003	0.0692	1.9800e-003	0.0712	0.0182	1.8900e-003	0.0201	0.0000	312.1992	312.1992	0.0357	0.0000	313.0908
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0728	0.0526	0.5326	1.1600e-003	0.1273	7.9000e-004	0.1281	0.0338	7.3000e-004	0.0345	0.0000	105.0730	105.0730	4.2900e-003	0.0000	105.1802
Total	0.1056	1.5352	0.7089	4.4400e-003	0.1965	2.7700e-003	0.1993	0.0520	2.6200e-003	0.0547	0.0000	417.2722	417.2722	0.0400	0.0000	418.2710

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

3.3 Grading - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0896	0.0000	0.0896	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5549	2.7797	19.2429	0.0357		0.1249	0.1249		0.1193	0.1193	0.0000	3,126.5306	3,126.5306	0.9281	0.0000	3,149.7338
Total	0.5549	2.7797	19.2429	0.0357	0.0896	0.1249	0.2145	0.0505	0.1193	0.1698	0.0000	3,126.5306	3,126.5306	0.9281	0.0000	3,149.7338

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0328	1.4826	0.1763	3.2800e-003	0.0633	1.9800e-003	0.0653	0.0168	1.8900e-003	0.0187	0.0000	312.1992	312.1992	0.0357	0.0000	313.0908
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0728	0.0526	0.5326	1.1600e-003	0.1163	7.9000e-004	0.1171	0.0311	7.3000e-004	0.0318	0.0000	105.0730	105.0730	4.2900e-003	0.0000	105.1802
Total	0.1056	1.5352	0.7089	4.4400e-003	0.1796	2.7700e-003	0.1824	0.0479	2.6200e-003	0.0505	0.0000	417.2722	417.2722	0.0400	0.0000	418.2710

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

3.3 Grading - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2553	0.0000	0.2553	0.1437	0.0000	0.1437	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1580	1.6234	1.2974	3.0100e-003		0.0686	0.0686		0.0636	0.0636	0.0000	263.6101	263.6101	0.0782	0.0000	265.5643
Total	0.1580	1.6234	1.2974	3.0100e-003	0.2553	0.0686	0.3238	0.1437	0.0636	0.2074	0.0000	263.6101	263.6101	0.0782	0.0000	265.5643

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6000e-003	0.1179	0.0143	2.7000e-004	0.0594	1.4000e-004	0.0595	0.0147	1.3000e-004	0.0148	0.0000	26.0432	26.0432	2.8000e-003	0.0000	26.1131
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7300e-003	4.0400e-003	0.0413	9.0000e-005	0.0107	6.0000e-005	0.0108	2.8500e-003	6.0000e-005	2.9100e-003	0.0000	8.5325	8.5325	3.3000e-004	0.0000	8.5407
Total	8.3300e-003	0.1220	0.0556	3.6000e-004	0.0701	2.0000e-004	0.0703	0.0175	1.9000e-004	0.0177	0.0000	34.5757	34.5757	3.1300e-003	0.0000	34.6538

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

3.3 Grading - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0896	0.0000	0.0896	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0445	0.2104	1.6170	3.0100e-003		9.2600e-003	9.2600e-003		8.8900e-003	8.8900e-003	0.0000	263.6098	263.6098	0.0782	0.0000	265.5640
Total	0.0445	0.2104	1.6170	3.0100e-003	0.0896	9.2600e-003	0.0989	0.0505	8.8900e-003	0.0593	0.0000	263.6098	263.6098	0.0782	0.0000	265.5640

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6000e-003	0.1179	0.0143	2.7000e-004	0.0536	1.4000e-004	0.0537	0.0133	1.3000e-004	0.0134	0.0000	26.0432	26.0432	2.8000e-003	0.0000	26.1131
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7300e-003	4.0400e-003	0.0413	9.0000e-005	9.8000e-003	6.0000e-005	9.8600e-003	2.6200e-003	6.0000e-005	2.6800e-003	0.0000	8.5325	8.5325	3.3000e-004	0.0000	8.5407
Total	8.3300e-003	0.1220	0.0556	3.6000e-004	0.0634	2.0000e-004	0.0635	0.0159	1.9000e-004	0.0161	0.0000	34.5757	34.5757	3.1300e-003	0.0000	34.6538

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

3.4 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.7380	7.6619	6.3620	0.0112		0.3821	0.3821		0.3583	0.3583	0.0000	974.6752	974.6752	0.2514	0.0000	980.9604
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.7380	7.6619	6.3620	0.0112		0.3821	0.3821		0.3583	0.3583	0.0000	974.6752	974.6752	0.2514	0.0000	980.9604

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0324	0.0240	0.2389	5.0000e-004	0.0528	3.4000e-004	0.0531	0.0140	3.1000e-004	0.0143	0.0000	45.1019	45.1019	1.9400e-003	0.0000	45.1504
Total	0.0324	0.0240	0.2389	5.0000e-004	0.0528	3.4000e-004	0.0531	0.0140	3.1000e-004	0.0143	0.0000	45.1019	45.1019	1.9400e-003	0.0000	45.1504

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

3.4 Paving - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2260	1.6091	7.1043	0.0112		0.0799	0.0799		0.0746	0.0746	0.0000	974.6740	974.6740	0.2514	0.0000	980.9592
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2260	1.6091	7.1043	0.0112		0.0799	0.0799		0.0746	0.0746	0.0000	974.6740	974.6740	0.2514	0.0000	980.9592

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0324	0.0240	0.2389	5.0000e-004	0.0482	3.4000e-004	0.0486	0.0129	3.1000e-004	0.0132	0.0000	45.1019	45.1019	1.9400e-003	0.0000	45.1504
Total	0.0324	0.0240	0.2389	5.0000e-004	0.0482	3.4000e-004	0.0486	0.0129	3.1000e-004	0.0132	0.0000	45.1019	45.1019	1.9400e-003	0.0000	45.1504

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

3.4 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0003	10.3003	9.4090	0.0167		0.4980	0.4980		0.4668	0.4668	0.0000	1,453.368 1	1,453.368 1	0.3730	0.0000	1,462.693 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.0003	10.3003	9.4090	0.0167		0.4980	0.4980		0.4668	0.4668	0.0000	1,453.368 1	1,453.368 1	0.3730	0.0000	1,462.693 8

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0450	0.0325	0.3295	7.2000e-004	0.0788	4.9000e-004	0.0793	0.0209	4.5000e-004	0.0214	0.0000	65.0028	65.0028	2.6500e-003	0.0000	65.0691
Total	0.0450	0.0325	0.3295	7.2000e-004	0.0788	4.9000e-004	0.0793	0.0209	4.5000e-004	0.0214	0.0000	65.0028	65.0028	2.6500e-003	0.0000	65.0691

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

3.4 Paving - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3239	2.2503	10.5957	0.0167		0.1094	0.1094		0.1023	0.1023	0.0000	1,453.366 3	1,453.366 3	0.3730	0.0000	1,462.692 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.3239	2.2503	10.5957	0.0167		0.1094	0.1094		0.1023	0.1023	0.0000	1,453.366 3	1,453.366 3	0.3730	0.0000	1,462.692 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0450	0.0325	0.3295	7.2000e-004	0.0719	4.9000e-004	0.0724	0.0192	4.5000e-004	0.0197	0.0000	65.0028	65.0028	2.6500e-003	0.0000	65.0691
Total	0.0450	0.0325	0.3295	7.2000e-004	0.0719	4.9000e-004	0.0724	0.0192	4.5000e-004	0.0197	0.0000	65.0028	65.0028	2.6500e-003	0.0000	65.0691

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

3.4 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1446	1.4514	1.4994	2.6800e-003		0.0684	0.0684		0.0642	0.0642	0.0000	233.8605	233.8605	0.0598	0.0000	235.3561
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1446	1.4514	1.4994	2.6800e-003		0.0684	0.0684		0.0642	0.0642	0.0000	233.8605	233.8605	0.0598	0.0000	235.3561

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7700e-003	4.7700e-003	0.0488	1.1000e-004	0.0127	8.0000e-005	0.0128	3.3600e-003	7.0000e-005	3.4300e-003	0.0000	10.0773	10.0773	3.9000e-004	0.0000	10.0870
Total	6.7700e-003	4.7700e-003	0.0488	1.1000e-004	0.0127	8.0000e-005	0.0128	3.3600e-003	7.0000e-005	3.4300e-003	0.0000	10.0773	10.0773	3.9000e-004	0.0000	10.0870

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

3.4 Paving - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0489	0.3244	1.7035	2.6800e-003		0.0153	0.0153		0.0143	0.0143	0.0000	233.8602	233.8602	0.0598	0.0000	235.3559
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0489	0.3244	1.7035	2.6800e-003		0.0153	0.0153		0.0143	0.0143	0.0000	233.8602	233.8602	0.0598	0.0000	235.3559

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7700e-003	4.7700e-003	0.0488	1.1000e-004	0.0116	8.0000e-005	0.0117	3.0900e-003	7.0000e-005	3.1700e-003	0.0000	10.0773	10.0773	3.9000e-004	0.0000	10.0870
Total	6.7700e-003	4.7700e-003	0.0488	1.1000e-004	0.0116	8.0000e-005	0.0117	3.0900e-003	7.0000e-005	3.1700e-003	0.0000	10.0773	10.0773	3.9000e-004	0.0000	10.0870

4.0 Operational Detail - Mobile

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.490441	0.036099	0.183975	0.121725	0.015214	0.005252	0.022424	0.112230	0.002972	0.001873	0.006187	0.000783	0.000825

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

Mitigated

[illegible]

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1775	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004
Unmitigated	0.1775	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004
Total	0.1775	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004
Total	0.1775	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004

7.0 Water Detail**7.1 Mitigation Measures Water**

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

CVWD CVSC Improvement Project: Alt. B Fully Lined
Salton Sea Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	47.65	Acre	116.15	2,075,634.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

Project Characteristics -

Land Use - Project consists of a fully lined channel.

Construction Phase - Assumes a 2-year buildout from March 2020 to March 2022.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineer.

Off-road Equipment - Equipment list provided by project engineer.

Trips and VMT - Haul trip lengths based on actual import/export locations within project area.

On-road Fugitive Dust - All roads within project area are paved.

Grading - Import/export quantities provided by project engineer. Includes concrete, reinforcing steel, and surplus soil.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - Assumes adherence to standard dust control measures per SCAQMD Rule 401.3 (Coachella Valley) and use of oxidation catalysts on all construction equipment with a reduction equivalent of 30%.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	10
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

[illegible]

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	310.00	480.00
tblConstructionPhase	NumDays	220.00	478.00
tblGrading	AcresOfGrading	3,600.00	116.00
tblGrading	AcresOfGrading	180.00	0.00
tblGrading	MaterialExported	0.00	319,000.00
tblGrading	MaterialImported	0.00	114,800.00
tblGrading	MaterialImported	0.00	9,503.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialSiltContent	6.90	2.00
tblGrading	MaterialSiltContent	6.90	0.00
tblLandUse	LotAcreage	47.65	116.15
tblOffRoadEquipment	HorsePower	64.00	247.00
tblOffRoadEquipment	LoadFactor	0.46	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	WorkerTripNumber	30.00	23.00
tblTripsAndVMT	WorkerTripNumber	120.00	118.00
tblTripsAndVMT	WorkerTripNumber	88.00	73.00

2.0 Emissions Summary

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	33.4120	360.4771	239.3657	0.5147	3.5973	15.6402	19.2375	1.2659	14.5318	15.7978	0.0000	49,931.06 15	49,931.06 15	13.5049	0.0000	50,268.68 48
2021	25.2351	265.8534	204.5942	0.4434	3.1980	11.2784	14.4764	1.1641	10.4991	11.6631	0.0000	42,995.87 55	42,995.87 55	11.3443	0.0000	43,279.48 21
2022	22.4779	228.0553	198.0651	0.4427	8.1352	9.5112	17.6464	2.3759	8.8584	11.2343	0.0000	42,916.48 19	42,916.48 19	11.3008	0.0000	43,199.00 27
Maximum	33.4120	360.4771	239.3657	0.5147	8.1352	15.6402	19.2375	2.3759	14.5318	15.7978	0.0000	49,931.06 15	49,931.06 15	13.5049	0.0000	50,268.68 48

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	12.1754	89.4843	274.4812	0.5147	2.6811	3.6536	6.3346	0.8223	3.4140	4.2364	0.0000	49,931.06 15	49,931.06 15	13.5049	0.0000	50,268.68 48
2021	8.0483	50.5913	238.0738	0.4434	2.3234	1.8194	4.1428	0.7301	1.7212	2.4513	0.0000	42,995.87 54	42,995.87 54	11.3443	0.0000	43,279.48 21
2022	7.5984	45.9357	236.8418	0.4427	6.7669	1.5914	8.3583	1.8208	1.5113	3.3321	0.0000	42,916.48 19	42,916.48 19	11.3008	0.0000	43,199.00 27
Maximum	12.1754	89.4843	274.4812	0.5147	6.7669	3.6536	8.3583	1.8208	3.4140	4.2364	0.0000	49,931.06 15	49,931.06 15	13.5049	0.0000	50,268.68 48

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	65.70	78.23	-16.72	0.00	21.16	80.61	63.33	29.81	80.39	74.11	0.00	0.00	0.00	0.00	0.00	0.00

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9729	4.0000e-005	4.8700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005		0.0111
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.9729	4.0000e-005	4.8700e-003	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005	0.0000	0.0111

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9729	4.0000e-005	4.8700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005		0.0111
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.9729	4.0000e-005	4.8700e-003	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005	0.0000	0.0111

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2020	6/1/2020	5	120	
2	Grading	Grading	4/1/2020	2/1/2022	5	480	
3	Paving	Paving	5/1/2020	3/1/2022	5	478	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 116

Acres of Paving: 116.15

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Bore/Drill Rigs	2	6.00	221	0.50
	Crawler Tractors	6	6.00	212	0.43
	Excavators	5	6.00	158	0.38
	Generator Sets	4	8.00	84	0.74
	Graders	2	6.00	187	0.41
	Off-Highway Tractors	2	6.00	124	0.44
	Off-Highway Trucks	4	6.00	402	0.38

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

	Other Construction Equipment	6	6.00	172	0.42
	Plate Compactors	4	6.00	8	0.43
	Rubber Tired Loaders	1	6.00	203	0.36
	Scrapers	6	6.00	367	0.48
	Sweepers/Scrubbers	1	6.00	64	0.46
	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Site Preparation	Crawler Tractors	2	6.00	212	0.43
Site Preparation	Excavators	2	6.00	158	0.38
Site Preparation	Graders	2	6.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Site Preparation	Sweepers/Scrubbers	1	6.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Bore/Drill Rigs	2	6.00	221	0.50
Grading	Crawler Tractors	6	6.00	212	0.43
Grading	Excavators	5	6.00	158	0.38
Grading	Generator Sets	4	8.00	84	0.74
Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Tractors	2	6.00	124	0.44
Grading	Off-Highway Trucks	4	6.00	402	0.38
Grading	Other Construction Equipment	6	6.00	172	0.42
Grading	Plate Compactors	4	6.00	8	0.43
Paving	Paving Equipment	2	8.00	132	0.36
Grading	Rubber Tired Loaders	1	6.00	203	0.36
Grading	Scrapers	6	6.00	367	0.48
Grading	Sweepers/Scrubbers	1	6.00	64	0.46
Grading	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Paving	Concrete/Industrial Saws	1	6.00	81	0.73

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

Paving	Cranes	2	3.00	231	0.29
Paving	Crawler Tractors	1	6.00	212	0.43
Paving	Excavators	1	6.00	158	0.38
Paving	Generator Sets	4	8.00	84	0.74
Paving	Graders	2	6.00	187	0.41
Paving	Off-Highway Tractors	4	6.00	124	0.44
Paving	Other Construction Equipment	4	6.00	172	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Paving	Plate Compactors	4	6.00	8	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Paving	Rubber Tired Loaders	1	6.00	203	0.36
Paving	Sweepers/Scrubbers	1	6.00	64	0.46
Paving	Tractors/Loaders/Backhoes	4	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	12	23.00	0.00	940.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Grading	48	118.00	0.00	39,875.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Paving	35	73.00	0.00	0.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

Use Cleaner Engines for Construction Equipment
 Use Oxidation Catalyst for Construction Equipment
 Use Soil Stabilizer
 Replace Ground Cover
 Water Exposed Area
 Water Unpaved Roads
 Reduce Vehicle Speed on Unpaved Roads
 Clean Paved Roads

3.2 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.1300e-003	0.0000	9.1300e-003	1.3800e-003	0.0000	1.3800e-003			0.0000			0.0000
Off-Road	5.7729	64.6817	28.6731	0.0661		2.8675	2.8675		2.6381	2.6381		6,402.4267	6,402.4267	2.0707		6,454.1936
Total	5.7729	64.6817	28.6731	0.0661	9.1300e-003	2.8675	2.8766	1.3800e-003	2.6381	2.6395		6,402.4267	6,402.4267	2.0707		6,454.1936

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

3.2 Site Preparation - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0239	1.1315	0.1120	2.4600e-003	0.0501	1.6000e-003	0.0517	0.0132	1.5300e-003	0.0147		258.8064	258.8064	0.0287		259.5226
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1391	0.0856	1.0760	1.9900e-003	0.1924	1.2200e-003	0.1937	0.0510	1.1200e-003	0.0522		197.9714	197.9714	8.9500e-003		198.1951
Total	0.1630	1.2172	1.1881	4.4500e-003	0.2425	2.8200e-003	0.2453	0.0642	2.6500e-003	0.0669		456.7778	456.7778	0.0376		457.7177

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2000e-003	0.0000	3.2000e-003	4.9000e-004	0.0000	4.9000e-004			0.0000			0.0000
Off-Road	3.7356	35.5046	34.4282	0.0661		1.7312	1.7312		1.5980	1.5980	0.0000	6,402.4267	6,402.4267	2.0707		6,454.1936
Total	3.7356	35.5046	34.4282	0.0661	3.2000e-003	1.7312	1.7344	4.9000e-004	1.5980	1.5985	0.0000	6,402.4267	6,402.4267	2.0707		6,454.1936

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

3.2 Site Preparation - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0239	1.1315	0.1120	2.4600e-003	0.0459	1.6000e-003	0.0475	0.0122	1.5300e-003	0.0137		258.8064	258.8064	0.0287		259.5226
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1391	0.0856	1.0760	1.9900e-003	0.1757	1.2200e-003	0.1769	0.0469	1.1200e-003	0.0481		197.9714	197.9714	8.9500e-003		198.1951
Total	0.1630	1.2172	1.1881	4.4500e-003	0.2216	2.8200e-003	0.2244	0.0591	2.6500e-003	0.0618		456.7778	456.7778	0.0376		457.7177

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0636	0.0000	1.0636	0.5989	0.0000	0.5989			0.0000			0.0000
Off-Road	17.6328	194.3027	126.6723	0.2736		8.3754	8.3754		7.7706	7.7706		26,404.3727	26,404.3727	7.8513		26,600.6555
Total	17.6328	194.3027	126.6723	0.2736	1.0636	8.3754	9.4390	0.5989	7.7706	8.3695		26,404.3727	26,404.3727	7.8513		26,600.6555

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

3.3 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2537	12.0001	1.1881	0.0261	0.6840	0.0170	0.7010	0.1775	0.0162	0.1938		2,744.6560	2,744.6560	0.3038		2,752.2511
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7137	0.4394	5.5204	0.0102	0.9873	6.2400e-003	0.9935	0.2619	5.7500e-003	0.2676		1,015.6791	1,015.6791	0.0459		1,016.8271
Total	0.9674	12.4394	6.7086	0.0364	1.6713	0.0232	1.6945	0.4394	0.0220	0.4614		3,760.3351	3,760.3351	0.3497		3,769.0781

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3733	0.0000	0.3733	0.2102	0.0000	0.2102			0.0000			0.0000
Off-Road	4.2852	21.6613	147.5490	0.2736		0.9793	0.9793		0.9349	0.9349	0.0000	26,404.3727	26,404.3727	7.8513		26,600.6555
Total	4.2852	21.6613	147.5490	0.2736	0.3733	0.9793	1.3526	0.2102	0.9349	1.1451	0.0000	26,404.3727	26,404.3727	7.8513		26,600.6555

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

3.3 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2537	12.0001	1.1881	0.0261	0.6238	0.0170	0.6408	0.1627	0.0162	0.1790		2,744.6560	2,744.6560	0.3038		2,752.2511
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7137	0.4394	5.5204	0.0102	0.9015	6.2400e-003	0.9077	0.2408	5.7500e-003	0.2466		1,015.6791	1,015.6791	0.0459		1,016.8271
Total	0.9674	12.4394	6.7086	0.0364	1.5253	0.0232	1.5485	0.4035	0.0220	0.4255		3,760.3351	3,760.3351	0.3497		3,769.0781

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0636	0.0000	1.0636	0.5989	0.0000	0.5989			0.0000			0.0000
Off-Road	16.2552	174.8762	123.0693	0.2737		7.4379	7.4379		6.8989	6.8989		26,409.3034	26,409.3034	7.8398		26,605.2972
Total	16.2552	174.8762	123.0693	0.2737	1.0636	7.4379	8.5015	0.5989	6.8989	7.4978		26,409.3034	26,409.3034	7.8398		26,605.2972

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

3.3 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2410	11.4015	1.1519	0.0259	0.5364	0.0147	0.5511	0.1413	0.0141	0.1553		2,721.5069	2,721.5069	0.2856		2,728.6471
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6632	0.3990	5.1114	9.8800e-003	0.9873	6.0800e-003	0.9934	0.2619	5.6000e-003	0.2675		981.5081	981.5081	0.0420		982.5582
Total	0.9043	11.8005	6.2632	0.0358	1.5236	0.0208	1.5444	0.4031	0.0197	0.4228		3,703.0151	3,703.0151	0.3276		3,711.2052

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3733	0.0000	0.3733	0.2102	0.0000	0.2102			0.0000			0.0000
Off-Road	4.2521	21.3004	147.4552	0.2737		0.9568	0.9568		0.9142	0.9142	0.0000	26,409.3034	26,409.3034	7.8398		26,605.2972
Total	4.2521	21.3004	147.4552	0.2737	0.3733	0.9568	1.3301	0.2102	0.9142	1.1244	0.0000	26,409.3034	26,409.3034	7.8398		26,605.2972

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2410	11.4015	1.1519	0.0259	0.4909	0.0147	0.5056	0.1301	0.0141	0.1442		2,721.5069	2,721.5069	0.2856		2,728.6471
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6632	0.3990	5.1114	9.8800e-003	0.9015	6.0800e-003	0.9076	0.2408	5.6000e-003	0.2464		981.5081	981.5081	0.0420		982.5582
Total	0.9043	11.8005	6.2632	0.0358	1.3924	0.0208	1.4132	0.3709	0.0197	0.3906		3,703.0151	3,703.0151	0.3276		3,711.2052

3.3 Grading - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0636	0.0000	1.0636	0.5989	0.0000	0.5989			0.0000			0.0000
Off-Road	14.3639	147.5797	117.9419	0.2738		6.2330	6.2330		5.7837	5.7837		26,416.4013	26,416.4013	7.8333		26,612.2333
Total	14.3639	147.5797	117.9419	0.2738	1.0636	6.2330	7.2966	0.5989	5.7837	6.3826		26,416.4013	26,416.4013	7.8333		26,612.2333

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

3.3 Grading - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2262	10.7750	1.1063	0.0256	5.4736	0.0119	5.4855	1.3531	0.0114	1.3645		2,694.036 3	2,694.036 3	0.2655		2,700.673 1
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6181	0.3637	4.7049	9.5200e-003	0.9873	5.8800e-003	0.9932	0.2619	5.4200e-003	0.2673		945.5259	945.5259	0.0382		946.4796
Total	0.8443	11.1387	5.8112	0.0352	6.4609	0.0178	6.4787	1.6150	0.0168	1.6318		3,639.562 2	3,639.562 2	0.3036		3,647.152 7

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3733	0.0000	0.3733	0.2102	0.0000	0.2102			0.0000			0.0000
Off-Road	4.0428	19.1227	146.9994	0.2738		0.8417	0.8417		0.8083	0.8083	0.0000	26,416.40 13	26,416.40 13	7.8333		26,612.23 33
Total	4.0428	19.1227	146.9994	0.2738	0.3733	0.8417	1.2150	0.2102	0.8083	1.0185	0.0000	26,416.40 13	26,416.40 13	7.8333		26,612.23 33

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

3.3 Grading - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2262	10.7750	1.1063	0.0256	4.9344	0.0119	4.9463	1.2208	0.0114	1.2322		2,694.036 3	2,694.036 3	0.2655		2,700.673 1
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6181	0.3637	4.7049	9.5200e-003	0.9015	5.8800e-003	0.9074	0.2408	5.4200e-003	0.2462		945.5259	945.5259	0.0382		946.4796
Total	0.8443	11.1387	5.8112	0.0352	5.8359	0.0178	5.8537	1.4616	0.0168	1.4784		3,639.562 2	3,639.562 2	0.3036		3,647.152 7

3.4 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	8.4343	87.5643	72.7085	0.1279		4.3673	4.3673		4.0950	4.0950		12,278.80 54	12,278.80 54	3.1672		12,357.98 58
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	8.4343	87.5643	72.7085	0.1279		4.3673	4.3673		4.0950	4.0950		12,278.80 54	12,278.80 54	3.1672		12,357.98 58

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

3.4 Paving - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4415	0.2718	3.4152	6.3300e-003	0.6108	3.8600e-003	0.6146	0.1620	3.5500e-003	0.1656		628.3439	628.3439	0.0284		629.0540
Total	0.4415	0.2718	3.4152	6.3300e-003	0.6108	3.8600e-003	0.6146	0.1620	3.5500e-003	0.1656		628.3439	628.3439	0.0284		629.0540

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5827	18.3900	81.1922	0.1279		0.9132	0.9132		0.8529	0.8529	0.0000	12,278.8053	12,278.8053	3.1672		12,357.9858
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.5827	18.3900	81.1922	0.1279		0.9132	0.9132		0.8529	0.8529	0.0000	12,278.8053	12,278.8053	3.1672		12,357.9858

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

3.4 Paving - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4415	0.2718	3.4152	6.3300e-003	0.5577	3.8600e-003	0.5616	0.1490	3.5500e-003	0.1525		628.3439	628.3439	0.0284		629.0540
Total	0.4415	0.2718	3.4152	6.3300e-003	0.5577	3.8600e-003	0.5616	0.1490	3.5500e-003	0.1525		628.3439	628.3439	0.0284		629.0540

3.4 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	7.6653	78.9298	72.0997	0.1278		3.8159	3.8159		3.5770	3.5770		12,276.3528	12,276.3528	3.1509		12,355.1259
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	7.6653	78.9298	72.0997	0.1278		3.8159	3.8159		3.5770	3.5770		12,276.3528	12,276.3528	3.1509		12,355.1259

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

3.4 Paving - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4103	0.2469	3.1621	6.1100e-003	0.6108	3.7600e-003	0.6145	0.1620	3.4700e-003	0.1655		607.2042	607.2042	0.0260		607.8538
Total	0.4103	0.2469	3.1621	6.1100e-003	0.6108	3.7600e-003	0.6145	0.1620	3.4700e-003	0.1655		607.2042	607.2042	0.0260		607.8538

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4817	17.2435	81.1933	0.1278		0.8381	0.8381		0.7839	0.7839	0.0000	12,276.3528	12,276.3528	3.1509		12,355.1259
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4817	17.2435	81.1933	0.1278		0.8381	0.8381		0.7839	0.7839	0.0000	12,276.3528	12,276.3528	3.1509		12,355.1259

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

3.4 Paving - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4103	0.2469	3.1621	6.1100e-003	0.5577	3.7600e-003	0.5615	0.1490	3.4700e-003	0.1524		607.2042	607.2042	0.0260		607.8538
Total	0.4103	0.2469	3.1621	6.1100e-003	0.5577	3.7600e-003	0.5615	0.1490	3.4700e-003	0.1524		607.2042	607.2042	0.0260		607.8538

3.4 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.8874	69.1119	71.4013	0.1278		3.2568	3.2568		3.0546	3.0546		12,275.5744	12,275.5744	3.1403		12,354.0828
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	6.8874	69.1119	71.4013	0.1278		3.2568	3.2568		3.0546	3.0546		12,275.5744	12,275.5744	3.1403		12,354.0828

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

3.4 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3824	0.2250	2.9107	5.8900e-003	0.6108	3.6400e-003	0.6144	0.1620	3.3500e-003	0.1654		584.9440	584.9440	0.0236		585.5340
Total	0.3824	0.2250	2.9107	5.8900e-003	0.6108	3.6400e-003	0.6144	0.1620	3.3500e-003	0.1654		584.9440	584.9440	0.0236		585.5340

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3290	15.4493	81.1206	0.1278		0.7283	0.7283		0.6828	0.6828	0.0000	12,275.5744	12,275.5744	3.1403		12,354.0827
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.3290	15.4493	81.1206	0.1278		0.7283	0.7283		0.6828	0.6828	0.0000	12,275.5744	12,275.5744	3.1403		12,354.0827

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

3.4 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3824	0.2250	2.9107	5.8900e-003	0.5577	3.6400e-003	0.5613	0.1490	3.3500e-003	0.1523		584.9440	584.9440	0.0236		585.5340
Total	0.3824	0.2250	2.9107	5.8900e-003	0.5577	3.6400e-003	0.5613	0.1490	3.3500e-003	0.1523		584.9440	584.9440	0.0236		585.5340

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.490441	0.036099	0.183975	0.121725	0.015214	0.005252	0.022424	0.112230	0.002972	0.001873	0.006187	0.000783	0.000825

5.0 Energy Detail

Historical Energy Use: N

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9729	4.0000e-005	4.8700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005		0.0111
Unmitigated	0.9729	4.0000e-005	4.8700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005		0.0111

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2372					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7352					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.5000e-004	4.0000e-005	4.8700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005		0.0111
Total	0.9729	4.0000e-005	4.8700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005		0.0111

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2372					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7352					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.5000e-004	4.0000e-005	4.8700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005		0.0111
Total	0.9729	4.0000e-005	4.8700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005		0.0111

7.0 Water Detail

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Summer

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

CVWD CVSC Improvement Project: Alt. B Fully Lined
Salton Sea Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	47.65	Acre	116.15	2,075,634.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

Project Characteristics -

Land Use - Project consists of a fully lined channel.

Construction Phase - Assumes a 2-year buildout from March 2020 to March 2022.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineer.

Off-road Equipment - Equipment list provided by project engineer.

Trips and VMT - Haul trip lengths based on actual import/export locations within project area.

On-road Fugitive Dust - All roads within project area are paved.

Grading - Import/export quantities provided by project engineer. Includes concrete, reinforcing steel, and surplus soil.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - Assumes adherence to standard dust control measures per SCAQMD Rule 401.3 (Coachella Valley) and use of oxidation catalysts on all construction equipment with a reduction equivalent of 30%.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	10
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

[illegible]

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	310.00	480.00
tblConstructionPhase	NumDays	220.00	478.00
tblGrading	AcresOfGrading	3,600.00	116.00
tblGrading	AcresOfGrading	180.00	0.00
tblGrading	MaterialExported	0.00	319,000.00
tblGrading	MaterialImported	0.00	114,800.00
tblGrading	MaterialImported	0.00	9,503.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialSiltContent	6.90	2.00
tblGrading	MaterialSiltContent	6.90	0.00
tblLandUse	LotAcreage	47.65	116.15
tblOffRoadEquipment	HorsePower	64.00	247.00
tblOffRoadEquipment	LoadFactor	0.46	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	WorkerTripNumber	30.00	23.00
tblTripsAndVMT	WorkerTripNumber	120.00	118.00
tblTripsAndVMT	WorkerTripNumber	88.00	73.00

2.0 Emissions Summary

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	33.2133	360.2208	237.0750	0.5096	3.5973	15.6415	19.2388	1.2659	14.5331	15.7990	0.0000	49,415.86 43	49,415.86 43	13.5311	0.0000	49,754.14 07
2021	25.0751	265.6131	202.7073	0.4389	3.1980	11.2794	14.4774	1.1641	10.5001	11.6642	0.0000	42,541.09 44	42,541.09 44	11.3679	0.0000	42,825.29 09
2022	22.3336	227.8076	196.3312	0.4383	8.1352	9.5121	17.6474	2.3759	8.8594	11.2353	0.0000	42,471.52 99	42,471.52 99	11.3237	0.0000	42,754.62 25
Maximum	33.2133	360.2208	237.0750	0.5096	8.1352	15.6415	19.2388	2.3759	14.5331	15.7990	0.0000	49,415.86 43	49,415.86 43	13.5311	0.0000	49,754.14 07

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	11.9767	89.2280	272.1905	0.5096	2.6811	3.6548	6.3359	0.8223	3.4153	4.2376	0.0000	49,415.86 43	49,415.86 43	13.5311	0.0000	49,754.14 07
2021	7.8883	50.3511	236.1868	0.4389	2.3234	1.8205	4.1439	0.7301	1.7222	2.4523	0.0000	42,541.09 44	42,541.09 44	11.3679	0.0000	42,825.29 09
2022	7.4541	45.6880	235.1079	0.4383	6.7669	1.5924	8.3593	1.8208	1.5122	3.3330	0.0000	42,471.52 98	42,471.52 98	11.3237	0.0000	42,754.62 25
Maximum	11.9767	89.2280	272.1905	0.5096	6.7669	3.6548	8.3593	1.8208	3.4153	4.2376	0.0000	49,415.86 43	49,415.86 43	13.5311	0.0000	49,754.14 07

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	66.11	78.30	-16.88	0.00	21.16	80.60	63.32	29.81	80.38	74.10	0.00	0.00	0.00	0.00	0.00	0.00

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9729	4.0000e-005	4.8700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005		0.0111
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.9729	4.0000e-005	4.8700e-003	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005	0.0000	0.0111

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9729	4.0000e-005	4.8700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005		0.0111
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.9729	4.0000e-005	4.8700e-003	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005	0.0000	0.0111

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2020	6/1/2020	5	120	
2	Grading	Grading	4/1/2020	2/1/2022	5	480	
3	Paving	Paving	5/1/2020	3/1/2022	5	478	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 116

Acres of Paving: 116.15

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Bore/Drill Rigs	2	6.00	221	0.50
	Crawler Tractors	6	6.00	212	0.43
	Excavators	5	6.00	158	0.38
	Generator Sets	4	8.00	84	0.74
	Graders	2	6.00	187	0.41
	Off-Highway Tractors	2	6.00	124	0.44
	Off-Highway Trucks	4	6.00	402	0.38

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

	Other Construction Equipment	6	6.00	172	0.42
	Plate Compactors	4	6.00	8	0.43
	Rubber Tired Loaders	1	6.00	203	0.36
	Scrapers	6	6.00	367	0.48
	Sweepers/Scrubbers	1	6.00	64	0.46
	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Site Preparation	Crawler Tractors	2	6.00	212	0.43
Site Preparation	Excavators	2	6.00	158	0.38
Site Preparation	Graders	2	6.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Site Preparation	Sweepers/Scrubbers	1	6.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Bore/Drill Rigs	2	6.00	221	0.50
Grading	Crawler Tractors	6	6.00	212	0.43
Grading	Excavators	5	6.00	158	0.38
Grading	Generator Sets	4	8.00	84	0.74
Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Tractors	2	6.00	124	0.44
Grading	Off-Highway Trucks	4	6.00	402	0.38
Grading	Other Construction Equipment	6	6.00	172	0.42
Grading	Plate Compactors	4	6.00	8	0.43
Paving	Paving Equipment	2	8.00	132	0.36
Grading	Rubber Tired Loaders	1	6.00	203	0.36
Grading	Scrapers	6	6.00	367	0.48
Grading	Sweepers/Scrubbers	1	6.00	64	0.46
Grading	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Paving	Concrete/Industrial Saws	1	6.00	81	0.73

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

Paving	Cranes	2	3.00	231	0.29
Paving	Crawler Tractors	1	6.00	212	0.43
Paving	Excavators	1	6.00	158	0.38
Paving	Generator Sets	4	8.00	84	0.74
Paving	Graders	2	6.00	187	0.41
Paving	Off-Highway Tractors	4	6.00	124	0.44
Paving	Other Construction Equipment	4	6.00	172	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Paving	Plate Compactors	4	6.00	8	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Paving	Rubber Tired Loaders	1	6.00	203	0.36
Paving	Sweepers/Scrubbers	1	6.00	64	0.46
Paving	Tractors/Loaders/Backhoes	4	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	12	23.00	0.00	940.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Grading	48	118.00	0.00	39,875.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Paving	35	73.00	0.00	0.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

Use Cleaner Engines for Construction Equipment
 Use Oxidation Catalyst for Construction Equipment
 Use Soil Stabilizer
 Replace Ground Cover
 Water Exposed Area
 Water Unpaved Roads
 Reduce Vehicle Speed on Unpaved Roads
 Clean Paved Roads

3.2 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.1300e-003	0.0000	9.1300e-003	1.3800e-003	0.0000	1.3800e-003			0.0000			0.0000
Off-Road	5.7729	64.6817	28.6731	0.0661		2.8675	2.8675		2.6381	2.6381		6,402.4267	6,402.4267	2.0707		6,454.1936
Total	5.7729	64.6817	28.6731	0.0661	9.1300e-003	2.8675	2.8766	1.3800e-003	2.6381	2.6395		6,402.4267	6,402.4267	2.0707		6,454.1936

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

3.2 Site Preparation - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0265	1.1073	0.1596	2.2800e-003	0.0501	1.7100e-003	0.0518	0.0132	1.6400e-003	0.0148		239.7692	239.7692	0.0324		240.5792
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1146	0.0883	0.7705	1.6700e-003	0.1924	1.2200e-003	0.1937	0.0510	1.1200e-003	0.0522		166.3443	166.3443	7.0800e-003		166.5212
Total	0.1411	1.1956	0.9301	3.9500e-003	0.2425	2.9300e-003	0.2455	0.0642	2.7600e-003	0.0670		406.1135	406.1135	0.0395		407.1004

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2000e-003	0.0000	3.2000e-003	4.9000e-004	0.0000	4.9000e-004			0.0000			0.0000
Off-Road	3.7356	35.5046	34.4282	0.0661		1.7312	1.7312		1.5980	1.5980	0.0000	6,402.4267	6,402.4267	2.0707		6,454.1936
Total	3.7356	35.5046	34.4282	0.0661	3.2000e-003	1.7312	1.7344	4.9000e-004	1.5980	1.5985	0.0000	6,402.4267	6,402.4267	2.0707		6,454.1936

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

3.2 Site Preparation - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0265	1.1073	0.1596	2.2800e-003	0.0459	1.7100e-003	0.0476	0.0122	1.6400e-003	0.0138		239.7692	239.7692	0.0324		240.5792
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1146	0.0883	0.7705	1.6700e-003	0.1757	1.2200e-003	0.1769	0.0469	1.1200e-003	0.0481		166.3443	166.3443	7.0800e-003		166.5212
Total	0.1411	1.1956	0.9301	3.9500e-003	0.2216	2.9300e-003	0.2245	0.0591	2.7600e-003	0.0619		406.1135	406.1135	0.0395		407.1004

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0636	0.0000	1.0636	0.5989	0.0000	0.5989			0.0000			0.0000
Off-Road	17.6328	194.3027	126.6723	0.2736		8.3754	8.3754		7.7706	7.7706		26,404.3727	26,404.3727	7.8513		26,600.6555
Total	17.6328	194.3027	126.6723	0.2736	1.0636	8.3754	9.4390	0.5989	7.7706	8.3695		26,404.3727	26,404.3727	7.8513		26,600.6555

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

3.3 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2805	11.7434	1.6926	0.0242	0.6840	0.0181	0.7022	0.1775	0.0174	0.1949		2,542.765 2	2,542.765 2	0.3436		2,551.355 6
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5880	0.4529	3.9530	8.5800e-003	0.9873	6.2400e-003	0.9935	0.2619	5.7500e-003	0.2676		853.4185	853.4185	0.0363		854.3261
Total	0.8685	12.1963	5.6456	0.0328	1.6713	0.0244	1.6957	0.4394	0.0231	0.4625		3,396.183 7	3,396.183 7	0.3799		3,405.681 7

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3733	0.0000	0.3733	0.2102	0.0000	0.2102			0.0000			0.0000
Off-Road	4.2852	21.6613	147.5490	0.2736		0.9793	0.9793		0.9349	0.9349	0.0000	26,404.37 27	26,404.37 27	7.8513		26,600.65 55
Total	4.2852	21.6613	147.5490	0.2736	0.3733	0.9793	1.3526	0.2102	0.9349	1.1451	0.0000	26,404.37 27	26,404.37 27	7.8513		26,600.65 55

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

3.3 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2805	11.7434	1.6926	0.0242	0.6238	0.0181	0.6420	0.1627	0.0174	0.1801		2,542.765 2	2,542.765 2	0.3436		2,551.355 6
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5880	0.4529	3.9530	8.5800e-003	0.9015	6.2400e-003	0.9077	0.2408	5.7500e-003	0.2466		853.4185	853.4185	0.0363		854.3261
Total	0.8685	12.1963	5.6456	0.0328	1.5253	0.0244	1.5497	0.4035	0.0231	0.4266		3,396.183 7	3,396.183 7	0.3799		3,405.681 7

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0636	0.0000	1.0636	0.5989	0.0000	0.5989			0.0000			0.0000
Off-Road	16.2552	174.8762	123.0693	0.2737		7.4379	7.4379		6.8989	6.8989		26,409.30 34	26,409.30 34	7.8398		26,605.29 72
Total	16.2552	174.8762	123.0693	0.2737	1.0636	7.4379	8.5015	0.5989	6.8989	7.4978		26,409.30 34	26,409.30 34	7.8398		26,605.29 72

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

3.3 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2667	11.1421	1.6332	0.0240	0.5364	0.0158	0.5522	0.1413	0.0151	0.1564		2,520.5223	2,520.5223	0.3234		2,528.6063
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5486	0.4109	3.6482	8.2900e-003	0.9873	6.0800e-003	0.9934	0.2619	5.6000e-003	0.2675		824.7124	824.7124	0.0333		825.5438
Total	0.8152	11.5530	5.2814	0.0323	1.5236	0.0219	1.5455	0.4031	0.0207	0.4238		3,345.2347	3,345.2347	0.3566		3,354.1500

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3733	0.0000	0.3733	0.2102	0.0000	0.2102			0.0000			0.0000
Off-Road	4.2521	21.3004	147.4552	0.2737		0.9568	0.9568		0.9142	0.9142	0.0000	26,409.3034	26,409.3034	7.8398		26,605.2972
Total	4.2521	21.3004	147.4552	0.2737	0.3733	0.9568	1.3301	0.2102	0.9142	1.1244	0.0000	26,409.3034	26,409.3034	7.8398		26,605.2972

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2667	11.1421	1.6332	0.0240	0.4909	0.0158	0.5067	0.1301	0.0151	0.1452		2,520.5223	2,520.5223	0.3234		2,528.6063
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5486	0.4109	3.6482	8.2900e-003	0.9015	6.0800e-003	0.9076	0.2408	5.6000e-003	0.2464		824.7124	824.7124	0.0333		825.5438
Total	0.8152	11.5530	5.2814	0.0323	1.3924	0.0219	1.4143	0.3709	0.0207	0.3916		3,345.2347	3,345.2347	0.3566		3,354.1500

3.3 Grading - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0636	0.0000	1.0636	0.5989	0.0000	0.5989			0.0000			0.0000
Off-Road	14.3639	147.5797	117.9419	0.2738		6.2330	6.2330		5.7837	5.7837		26,416.4013	26,416.4013	7.8333		26,612.2333
Total	14.3639	147.5797	117.9419	0.2738	1.0636	6.2330	7.2966	0.5989	5.7837	6.3826		26,416.4013	26,416.4013	7.8333		26,612.2333

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

3.3 Grading - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2507	10.5105	1.5657	0.0237	5.4736	0.0129	5.4865	1.3531	0.0123	1.3655		2,493.4463	2,493.4463	0.3011		2,500.9727
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5138	0.3740	3.3499	7.9900e-003	0.9873	5.8800e-003	0.9932	0.2619	5.4200e-003	0.2673		794.5588	794.5588	0.0303		795.3162
Total	0.7645	10.8846	4.9156	0.0317	6.4609	0.0188	6.4796	1.6150	0.0177	1.6327		3,288.0051	3,288.0051	0.3314		3,296.2889

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3733	0.0000	0.3733	0.2102	0.0000	0.2102			0.0000			0.0000
Off-Road	4.0428	19.1227	146.9994	0.2738		0.8417	0.8417		0.8083	0.8083	0.0000	26,416.4013	26,416.4013	7.8333		26,612.2333
Total	4.0428	19.1227	146.9994	0.2738	0.3733	0.8417	1.2150	0.2102	0.8083	1.0185	0.0000	26,416.4013	26,416.4013	7.8333		26,612.2333

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

3.3 Grading - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2507	10.5105	1.5657	0.0237	4.9344	0.0129	4.9473	1.2208	0.0123	1.2331		2,493.446 3	2,493.446 3	0.3011		2,500.972 7
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5138	0.3740	3.3499	7.9900e-003	0.9015	5.8800e-003	0.9074	0.2408	5.4200e-003	0.2462		794.5588	794.5588	0.0303		795.3162
Total	0.7645	10.8846	4.9156	0.0317	5.8359	0.0188	5.8547	1.4616	0.0177	1.4793		3,288.005 1	3,288.005 1	0.3314		3,296.288 9

3.4 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	8.4343	87.5643	72.7085	0.1279		4.3673	4.3673		4.0950	4.0950		12,278.80 54	12,278.80 54	3.1672		12,357.98 58
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	8.4343	87.5643	72.7085	0.1279		4.3673	4.3673		4.0950	4.0950		12,278.80 54	12,278.80 54	3.1672		12,357.98 58

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

3.4 Paving - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3637	0.2802	2.4455	5.3100e-003	0.6108	3.8600e-003	0.6146	0.1620	3.5500e-003	0.1656		527.9623	527.9623	0.0225		528.5238
Total	0.3637	0.2802	2.4455	5.3100e-003	0.6108	3.8600e-003	0.6146	0.1620	3.5500e-003	0.1656		527.9623	527.9623	0.0225		528.5238

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5827	18.3900	81.1922	0.1279		0.9132	0.9132		0.8529	0.8529	0.0000	12,278.8053	12,278.8053	3.1672		12,357.9858
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.5827	18.3900	81.1922	0.1279		0.9132	0.9132		0.8529	0.8529	0.0000	12,278.8053	12,278.8053	3.1672		12,357.9858

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

3.4 Paving - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3637	0.2802	2.4455	5.3100e-003	0.5577	3.8600e-003	0.5616	0.1490	3.5500e-003	0.1525		527.9623	527.9623	0.0225		528.5238
Total	0.3637	0.2802	2.4455	5.3100e-003	0.5577	3.8600e-003	0.5616	0.1490	3.5500e-003	0.1525		527.9623	527.9623	0.0225		528.5238

3.4 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	7.6653	78.9298	72.0997	0.1278		3.8159	3.8159		3.5770	3.5770		12,276.3528	12,276.3528	3.1509		12,355.1259
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	7.6653	78.9298	72.0997	0.1278		3.8159	3.8159		3.5770	3.5770		12,276.3528	12,276.3528	3.1509		12,355.1259

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

3.4 Paving - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3394	0.2542	2.2570	5.1300e-003	0.6108	3.7600e-003	0.6145	0.1620	3.4700e-003	0.1655		510.2035	510.2035	0.0206		510.7178
Total	0.3394	0.2542	2.2570	5.1300e-003	0.6108	3.7600e-003	0.6145	0.1620	3.4700e-003	0.1655		510.2035	510.2035	0.0206		510.7178

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4817	17.2435	81.1933	0.1278		0.8381	0.8381		0.7839	0.7839	0.0000	12,276.3528	12,276.3528	3.1509		12,355.1259
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4817	17.2435	81.1933	0.1278		0.8381	0.8381		0.7839	0.7839	0.0000	12,276.3528	12,276.3528	3.1509		12,355.1259

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

3.4 Paving - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3394	0.2542	2.2570	5.1300e-003	0.5577	3.7600e-003	0.5615	0.1490	3.4700e-003	0.1524		510.2035	510.2035	0.0206		510.7178
Total	0.3394	0.2542	2.2570	5.1300e-003	0.5577	3.7600e-003	0.5615	0.1490	3.4700e-003	0.1524		510.2035	510.2035	0.0206		510.7178

3.4 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.8874	69.1119	71.4013	0.1278		3.2568	3.2568		3.0546	3.0546		12,275.5744	12,275.5744	3.1403		12,354.0828
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	6.8874	69.1119	71.4013	0.1278		3.2568	3.2568		3.0546	3.0546		12,275.5744	12,275.5744	3.1403		12,354.0828

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

3.4 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3178	0.2314	2.0724	4.9400e-003	0.6108	3.6400e-003	0.6144	0.1620	3.3500e-003	0.1654		491.5491	491.5491	0.0187		492.0176
Total	0.3178	0.2314	2.0724	4.9400e-003	0.6108	3.6400e-003	0.6144	0.1620	3.3500e-003	0.1654		491.5491	491.5491	0.0187		492.0176

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3290	15.4493	81.1206	0.1278		0.7283	0.7283		0.6828	0.6828	0.0000	12,275.5744	12,275.5744	3.1403		12,354.0827
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.3290	15.4493	81.1206	0.1278		0.7283	0.7283		0.6828	0.6828	0.0000	12,275.5744	12,275.5744	3.1403		12,354.0827

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

3.4 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3178	0.2314	2.0724	4.9400e-003	0.5577	3.6400e-003	0.5613	0.1490	3.3500e-003	0.1523		491.5491	491.5491	0.0187		492.0176
Total	0.3178	0.2314	2.0724	4.9400e-003	0.5577	3.6400e-003	0.5613	0.1490	3.3500e-003	0.1523		491.5491	491.5491	0.0187		492.0176

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.490441	0.036099	0.183975	0.121725	0.015214	0.005252	0.022424	0.112230	0.002972	0.001873	0.006187	0.000783	0.000825

5.0 Energy Detail

Historical Energy Use: N

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9729	4.0000e-005	4.8700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005		0.0111
Unmitigated	0.9729	4.0000e-005	4.8700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005		0.0111

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2372					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7352					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.5000e-004	4.0000e-005	4.8700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005		0.0111
Total	0.9729	4.0000e-005	4.8700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005		0.0111

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2372					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7352					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.5000e-004	4.0000e-005	4.8700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005		0.0111
Total	0.9729	4.0000e-005	4.8700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0104	0.0104	3.0000e-005		0.0111

7.0 Water Detail

CVWD CVSC Improvement Project: Alt. B Fully Lined - Salton Sea Air Basin, Winter

7.1 Mitigation Measures Water**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Alternative C

CVSC Improvement Project Air Emission Outputs
CalEEMod Version 2016.3.1

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening
Salton Sea Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	25.13	Acre	136.27	1,094,662.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

Project Characteristics -

Land Use - Project consists of slope lining and channel widening.

Construction Phase - Assumes a 18 month buildout from March 2020 to November 2021.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineer.

Off-road Equipment - Equipment list provided by project engineer.

Trips and VMT - Haul trip lengths based on actual import/export locations within project area.

On-road Fugitive Dust - All roads within project area are paved.

Grading - Import/export quantities provided by project engineer. Includes concrete, reinforcing steel, and surplus soil.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - Assumes adherence to standard dust control measures per SCAQMD Rule 401.3 (Coachella Valley) and use of oxidation catalysts on all construction equipment with a reduction equivalent of 30%.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	10
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

[illegible]

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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	310.00	393.00
tblConstructionPhase	NumDays	220.00	392.00
tblGrading	AcresOfGrading	2,947.50	136.00
tblGrading	AcresOfGrading	180.00	0.00
tblGrading	MaterialExported	0.00	772,333.00
tblGrading	MaterialImported	0.00	37,200.00
tblGrading	MaterialImported	0.00	1,776.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialSiltContent	6.90	2.00
tblGrading	MaterialSiltContent	6.90	0.00
tblLandUse	LotAcreage	25.13	136.27
tblOffRoadEquipment	HorsePower	64.00	247.00
tblOffRoadEquipment	LoadFactor	0.46	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	WorkerTripNumber	30.00	23.00
tblTripsAndVMT	WorkerTripNumber	120.00	118.00
tblTripsAndVMT	WorkerTripNumber	88.00	73.00

2.0 Emissions Summary

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	2.8378	32.4996	20.8949	0.0492	0.5849	1.3078	1.8927	0.2098	1.2166	1.4263	0.0000	4,362.553 8	4,362.553 8	1.1055	0.0000	4,390.190 8
2021	2.5897	29.0607	20.9490	0.0494	0.5903	1.1483	1.7386	0.2112	1.0693	1.2805	0.0000	4,382.485 8	4,382.485 8	1.0918	0.0000	4,409.779 7
Maximum	2.8378	32.4996	20.9490	0.0494	0.5903	1.3078	1.8927	0.2112	1.2166	1.4263	0.0000	4,382.485 8	4,382.485 8	1.1055	0.0000	4,409.779 7

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.9438	8.4788	23.8835	0.0492	0.3859	0.2396	0.6255	0.1218	0.2252	0.3471	0.0000	4,362.549 6	4,362.549 6	1.1055	0.0000	4,390.186 6
2021	0.8510	7.3173	24.3254	0.0494	0.3909	0.1901	0.5810	0.1231	0.1798	0.3029	0.0000	4,382.481 6	4,382.481 6	1.0918	0.0000	4,409.775 4
Maximum	0.9438	8.4788	24.3254	0.0494	0.3909	0.2396	0.6255	0.1231	0.2252	0.3471	0.0000	4,382.481 6	4,382.481 6	1.1055	0.0000	4,409.775 4

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	66.93	74.34	-15.21	0.00	33.89	82.51	66.77	41.82	82.28	75.99	0.00	0.00	0.00	0.00	0.00	0.00

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2020	5-31-2020	8.8316	2.9234
2	6-1-2020	8-31-2020	11.3951	2.8077
3	9-1-2020	11-30-2020	11.2274	2.7444
4	12-1-2020	2-28-2021	10.4173	2.6294
5	3-1-2021	5-31-2021	10.3035	2.6659
6	6-1-2021	8-31-2021	10.3130	2.6754
7	9-1-2021	9-30-2021	3.3629	0.8724
		Highest	11.3951	2.9234

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0936	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0936	0.0000	2.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0936	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0936	0.0000	2.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2020	6/1/2020	5	120	
2	Grading	Grading	4/1/2020	10/1/2021	5	393	
3	Paving	Paving	5/1/2020	11/1/2021	5	392	

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 136****Acres of Paving: 136.27****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Bore/Drill Rigs	2	6.00	221	0.50
	Crawler Tractors	6	6.00	212	0.43
	Excavators	5	6.00	158	0.38
	Generator Sets	4	8.00	84	0.74
	Graders	2	6.00	187	0.41
	Off-Highway Tractors	2	6.00	124	0.44
	Off-Highway Trucks	4	6.00	402	0.38
	Other Construction Equipment	6	6.00	172	0.42
	Plate Compactors	4	6.00	8	0.43
	Rubber Tired Loaders	1	6.00	203	0.36
	Scrapers	6	6.00	367	0.48
	Sweepers/Scrubbers	1	6.00	64	0.46
	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Site Preparation	Crawler Tractors	2	6.00	212	0.43
Site Preparation	Excavators	2	6.00	158	0.38
Site Preparation	Graders	2	6.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Site Preparation	Sweepers/Scrubbers	1	6.00	247	0.40

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

Site Preparation	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Bore/Drill Rigs	2	6.00	221	0.50
Grading	Crawler Tractors	6	6.00	212	0.43
Grading	Excavators	5	6.00	158	0.38
Grading	Generator Sets	4	8.00	84	0.74
Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Tractors	2	6.00	124	0.44
Grading	Off-Highway Trucks	4	6.00	402	0.38
Grading	Other Construction Equipment	6	6.00	172	0.42
Grading	Plate Compactors	4	6.00	8	0.43
Paving	Paving Equipment	2	8.00	132	0.36
Grading	Rubber Tired Loaders	1	6.00	203	0.36
Grading	Scrapers	6	6.00	367	0.48
Grading	Sweepers/Scrubbers	1	6.00	64	0.46
Grading	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Paving	Concrete/Industrial Saws	1	6.00	81	0.73
Paving	Cranes	2	3.00	231	0.29
Paving	Crawler Tractors	1	6.00	212	0.43
Paving	Excavators	1	6.00	158	0.38
Paving	Generator Sets	4	8.00	84	0.74
Paving	Graders	2	6.00	187	0.41
Paving	Off-Highway Tractors	4	6.00	124	0.44
Paving	Other Construction Equipment	4	6.00	172	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Paving	Plate Compactors	4	6.00	8	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

Paving	Rubber Tired Loaders	1	6.00	203	0.36
Paving	Sweepers/Scrubbers	1	6.00	64	0.46
Paving	Tractors/Loaders/Backhoes	4	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	12	23.00	0.00	176.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Grading	48	118.00	0.00	96,542.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Paving	35	73.00	0.00	0.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment
 Use Oxidation Catalyst for Construction Equipment
 Use Soil Stabilizer
 Replace Ground Cover
 Water Exposed Area
 Water Unpaved Roads
 Reduce Vehicle Speed on Unpaved Roads
 Clean Paved Roads

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

3.2 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1905	2.1345	0.9462	2.1800e-003		0.0946	0.0946		0.0871	0.0871	0.0000	191.6701	191.6701	0.0620	0.0000	193.2198
Total	0.1905	2.1345	0.9462	2.1800e-003	6.0000e-005	0.0946	0.0947	1.0000e-005	0.0871	0.0871	0.0000	191.6701	191.6701	0.0620	0.0000	193.2198

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5000e-004	6.9700e-003	8.1000e-004	1.0000e-005	3.1000e-004	1.0000e-005	3.2000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	1.4059	1.4059	1.7000e-004	0.0000	1.4101
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8500e-003	2.8600e-003	0.0284	6.0000e-005	6.2700e-003	4.0000e-005	6.3100e-003	1.6700e-003	4.0000e-005	1.7000e-003	0.0000	5.3593	5.3593	2.3000e-004	0.0000	5.3650
Total	4.0000e-003	9.8300e-003	0.0292	7.0000e-005	6.5800e-003	5.0000e-005	6.6300e-003	1.7500e-003	5.0000e-005	1.7900e-003	0.0000	6.7651	6.7651	4.0000e-004	0.0000	6.7751

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

3.2 Site Preparation - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1233	1.1717	1.1361	2.1800e-003		0.0571	0.0571		0.0527	0.0527	0.0000	191.6698	191.6698	0.0620	0.0000	193.2196
Total	0.1233	1.1717	1.1361	2.1800e-003	2.0000e-005	0.0571	0.0572	0.0000	0.0527	0.0527	0.0000	191.6698	191.6698	0.0620	0.0000	193.2196

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5000e-004	6.9700e-003	8.1000e-004	1.0000e-005	2.8000e-004	1.0000e-005	2.9000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.4059	1.4059	1.7000e-004	0.0000	1.4101
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8500e-003	2.8600e-003	0.0284	6.0000e-005	5.7300e-003	4.0000e-005	5.7700e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.3593	5.3593	2.3000e-004	0.0000	5.3650
Total	4.0000e-003	9.8300e-003	0.0292	7.0000e-005	6.0100e-003	5.0000e-005	6.0600e-003	1.6000e-003	5.0000e-005	1.6500e-003	0.0000	6.7651	6.7651	4.0000e-004	0.0000	6.7751

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2639	0.0000	0.2639	0.1251	0.0000	0.1251	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7368	19.1388	12.4772	0.0270		0.8250	0.8250		0.7654	0.7654	0.0000	2,359.4339	2,359.4339	0.7016	0.0000	2,376.9733
Total	1.7368	19.1388	12.4772	0.0270	0.2639	0.8250	1.0888	0.1251	0.7654	0.8905	0.0000	2,359.4339	2,359.4339	0.7016	0.0000	2,376.9733

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0771	3.4868	0.4067	7.3700e-003	0.1655	5.0900e-003	0.1706	0.0434	4.8700e-003	0.0483	0.0000	702.8382	702.8382	0.0846	0.0000	704.9540
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0590	0.0437	0.4347	9.1000e-004	0.0961	6.1000e-004	0.0967	0.0255	5.7000e-004	0.0261	0.0000	82.0695	82.0695	3.5300e-003	0.0000	82.1578
Total	0.1361	3.5305	0.8414	8.2800e-003	0.2616	5.7000e-003	0.2673	0.0689	5.4400e-003	0.0744	0.0000	784.9077	784.9077	0.0882	0.0000	787.1118

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

3.3 Grading - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0926	0.0000	0.0926	0.0439	0.0000	0.0439	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4221	2.1336	14.5336	0.0270		0.0965	0.0965		0.0921	0.0921	0.0000	2,359.4311	2,359.4311	0.7016	0.0000	2,376.9705
Total	0.4221	2.1336	14.5336	0.0270	0.0926	0.0965	0.1891	0.0439	0.0921	0.1360	0.0000	2,359.4311	2,359.4311	0.7016	0.0000	2,376.9705

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0771	3.4868	0.4067	7.3700e-003	0.1513	5.0900e-003	0.1564	0.0399	4.8700e-003	0.0448	0.0000	702.8382	702.8382	0.0846	0.0000	704.9540
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0590	0.0437	0.4347	9.1000e-004	0.0878	6.1000e-004	0.0884	0.0235	5.7000e-004	0.0240	0.0000	82.0695	82.0695	3.5300e-003	0.0000	82.1578
Total	0.1361	3.5305	0.8414	8.2800e-003	0.2391	5.7000e-003	0.2448	0.0634	5.4400e-003	0.0688	0.0000	784.9077	784.9077	0.0882	0.0000	787.1118

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2639	0.0000	0.2639	0.1251	0.0000	0.1251	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5930	17.1379	12.0608	0.0268		0.7289	0.7289		0.6761	0.6761	0.0000	2,347.8955	2,347.8955	0.6970	0.0000	2,365.3201
Total	1.5930	17.1379	12.0608	0.0268	0.2639	0.7289	0.9928	0.1251	0.6761	0.8011	0.0000	2,347.8955	2,347.8955	0.6970	0.0000	2,365.3201

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0729	3.2924	0.3914	7.2700e-003	0.1654	4.3900e-003	0.1698	0.0434	4.2000e-003	0.0476	0.0000	693.2847	693.2847	0.0792	0.0000	695.2647
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0547	0.0395	0.4000	8.7000e-004	0.0956	6.0000e-004	0.0962	0.0254	5.5000e-004	0.0259	0.0000	78.9054	78.9054	3.2200e-003	0.0000	78.9859
Total	0.1276	3.3319	0.7914	8.1400e-003	0.2610	4.9900e-003	0.2660	0.0688	4.7500e-003	0.0735	0.0000	772.1901	772.1901	0.0824	0.0000	774.2506

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

3.3 Grading - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0926	0.0000	0.0926	0.0439	0.0000	0.0439	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4167	2.0874	14.4506	0.0268		0.0938	0.0938		0.0896	0.0896	0.0000	2,347.8927	2,347.8927	0.6970	0.0000	2,365.3173
Total	0.4167	2.0874	14.4506	0.0268	0.0926	0.0938	0.1864	0.0439	0.0896	0.1335	0.0000	2,347.8927	2,347.8927	0.6970	0.0000	2,365.3173

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0729	3.2924	0.3914	7.2700e-003	0.1512	4.3900e-003	0.1556	0.0399	4.2000e-003	0.0441	0.0000	693.2847	693.2847	0.0792	0.0000	695.2647
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0547	0.0395	0.4000	8.7000e-004	0.0873	6.0000e-004	0.0879	0.0233	5.5000e-004	0.0239	0.0000	78.9054	78.9054	3.2200e-003	0.0000	78.9859
Total	0.1276	3.3319	0.7914	8.1400e-003	0.2385	4.9900e-003	0.2435	0.0632	4.7500e-003	0.0680	0.0000	772.1901	772.1901	0.0824	0.0000	774.2506

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

3.4 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.7380	7.6619	6.3620	0.0112		0.3821	0.3821		0.3583	0.3583	0.0000	974.6752	974.6752	0.2514	0.0000	980.9604
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.7380	7.6619	6.3620	0.0112		0.3821	0.3821		0.3583	0.3583	0.0000	974.6752	974.6752	0.2514	0.0000	980.9604

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0324	0.0240	0.2389	5.0000e-004	0.0528	3.4000e-004	0.0531	0.0140	3.1000e-004	0.0143	0.0000	45.1019	45.1019	1.9400e-003	0.0000	45.1504
Total	0.0324	0.0240	0.2389	5.0000e-004	0.0528	3.4000e-004	0.0531	0.0140	3.1000e-004	0.0143	0.0000	45.1019	45.1019	1.9400e-003	0.0000	45.1504

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

3.4 Paving - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2260	1.6091	7.1043	0.0112		0.0799	0.0799		0.0746	0.0746	0.0000	974.6740	974.6740	0.2514	0.0000	980.9592
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2260	1.6091	7.1043	0.0112		0.0799	0.0799		0.0746	0.0746	0.0000	974.6740	974.6740	0.2514	0.0000	980.9592

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0324	0.0240	0.2389	5.0000e-004	0.0482	3.4000e-004	0.0486	0.0129	3.1000e-004	0.0132	0.0000	45.1019	45.1019	1.9400e-003	0.0000	45.1504
Total	0.0324	0.0240	0.2389	5.0000e-004	0.0482	3.4000e-004	0.0486	0.0129	3.1000e-004	0.0132	0.0000	45.1019	45.1019	1.9400e-003	0.0000	45.1504

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

3.4 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.8317	8.5639	7.8228	0.0139		0.4140	0.4140		0.3881	0.3881	0.0000	1,208.3558	1,208.3558	0.3101	0.0000	1,216.1094
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.8317	8.5639	7.8228	0.0139		0.4140	0.4140		0.3881	0.3881	0.0000	1,208.3558	1,208.3558	0.3101	0.0000	1,216.1094

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0374	0.0271	0.2740	6.0000e-004	0.0655	4.1000e-004	0.0659	0.0174	3.8000e-004	0.0178	0.0000	54.0445	54.0445	2.2100e-003	0.0000	54.0996
Total	0.0374	0.0271	0.2740	6.0000e-004	0.0655	4.1000e-004	0.0659	0.0174	3.8000e-004	0.0178	0.0000	54.0445	54.0445	2.2100e-003	0.0000	54.0996

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

3.4 Paving - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2693	1.8709	8.8095	0.0139		0.0909	0.0909		0.0851	0.0851	0.0000	1,208.354 4	1,208.354 4	0.3101	0.0000	1,216.108 0
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2693	1.8709	8.8095	0.0139		0.0909	0.0909		0.0851	0.0851	0.0000	1,208.354 4	1,208.354 4	0.3101	0.0000	1,216.108 0

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0374	0.0271	0.2740	6.0000e-004	0.0598	4.1000e-004	0.0602	0.0160	3.8000e-004	0.0164	0.0000	54.0445	54.0445	2.2100e-003	0.0000	54.0996
Total	0.0374	0.0271	0.2740	6.0000e-004	0.0598	4.1000e-004	0.0602	0.0160	3.8000e-004	0.0164	0.0000	54.0445	54.0445	2.2100e-003	0.0000	54.0996

4.0 Operational Detail - Mobile

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.490441	0.036099	0.183975	0.121725	0.015214	0.005252	0.022424	0.112230	0.002972	0.001873	0.006187	0.000783	0.000825

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

Mitigated

[illegible]

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0936	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004
Unmitigated	0.0936	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0228					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0708					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004
Total	0.0936	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0228					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0708					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004
Total	0.0936	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5000e-004	4.5000e-004	0.0000	0.0000	4.8000e-004

7.0 Water Detail**7.1 Mitigation Measures Water**

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening
Salton Sea Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	25.13	Acre	136.27	1,094,662.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

Project Characteristics -

Land Use - Project consists of slope lining and channel widening.

Construction Phase - Assumes a 18 month buildout from March 2020 to November 2021.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineer.

Off-road Equipment - Equipment list provided by project engineer.

Trips and VMT - Haul trip lengths based on actual import/export locations within project area.

On-road Fugitive Dust - All roads within project area are paved.

Grading - Import/export quantities provided by project engineer. Includes concrete, reinforcing steel, and surplus soil.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - Assumes adherence to standard dust control measures per SCAQMD Rule 401.3 (Coachella Valley) and use of oxidation catalysts on all construction equipment with a reduction equivalent of 30%.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	10
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	310.00	393.00
tblConstructionPhase	NumDays	220.00	392.00
tblGrading	AcresOfGrading	2,947.50	136.00
tblGrading	AcresOfGrading	180.00	0.00
tblGrading	MaterialExported	0.00	772,333.00
tblGrading	MaterialImported	0.00	37,200.00
tblGrading	MaterialImported	0.00	1,776.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialSiltContent	6.90	2.00
tblGrading	MaterialSiltContent	6.90	0.00
tblLandUse	LotAcreage	25.13	136.27
tblOffRoadEquipment	HorsePower	64.00	247.00
tblOffRoadEquipment	LoadFactor	0.46	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	WorkerTripNumber	30.00	23.00
tblTripsAndVMT	WorkerTripNumber	120.00	118.00
tblTripsAndVMT	WorkerTripNumber	88.00	73.00

2.0 Emissions Summary

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	33.8891	383.0426	241.5999	0.5638	4.8443	15.6721	20.5164	1.5597	14.5624	16.1221	0.0000	55,092.24 64	55,092.24 64	14.0762	0.0000	55,444.15 18
2021	25.7068	288.1671	206.8486	0.4941	4.6482	11.3071	15.9553	1.5078	10.5266	12.0344	0.0000	48,322.10 46	48,322.10 46	11.9032	0.0000	48,619.68 52
Maximum	33.8891	383.0426	241.5999	0.5638	4.8443	15.6721	20.5164	1.5597	14.5624	16.1221	0.0000	55,092.24 64	55,092.24 64	14.0762	0.0000	55,444.15 18

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	12.6525	112.0498	276.7154	0.5638	3.6696	3.6855	7.3551	1.0724	3.4446	4.5170	0.0000	55,092.24 64	55,092.24 64	14.0762	0.0000	55,444.15 18
2021	8.5200	72.9050	240.3282	0.4941	3.4913	1.8482	5.3395	1.0247	1.7487	2.7734	0.0000	48,322.10 46	48,322.10 46	11.9032	0.0000	48,619.68 51
Maximum	12.6525	112.0498	276.7154	0.5638	3.6696	3.6855	7.3551	1.0724	3.4446	4.5170	0.0000	55,092.24 64	55,092.24 64	14.0762	0.0000	55,444.15 18

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	64.47	72.44	-15.30	0.00	24.56	79.49	65.19	31.64	79.30	74.11	0.00	0.00	0.00	0.00	0.00	0.00

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5131	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005		5.8600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.5131	2.0000e-005	2.5700e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005	0.0000	5.8600e-003

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5131	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005		5.8600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.5131	2.0000e-005	2.5700e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005	0.0000	5.8600e-003

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2020	6/1/2020	5	120	
2	Grading	Grading	4/1/2020	10/1/2021	5	393	
3	Paving	Paving	5/1/2020	11/1/2021	5	392	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 136

Acres of Paving: 136.27

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Bore/Drill Rigs	2	6.00	221	0.50
	Crawler Tractors	6	6.00	212	0.43
	Excavators	5	6.00	158	0.38
	Generator Sets	4	8.00	84	0.74
	Graders	2	6.00	187	0.41
	Off-Highway Tractors	2	6.00	124	0.44
	Off-Highway Trucks	4	6.00	402	0.38

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

	Other Construction Equipment	6	6.00	172	0.42
	Plate Compactors	4	6.00	8	0.43
	Rubber Tired Loaders	1	6.00	203	0.36
	Scrapers	6	6.00	367	0.48
	Sweepers/Scrubbers	1	6.00	64	0.46
	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Site Preparation	Crawler Tractors	2	6.00	212	0.43
Site Preparation	Excavators	2	6.00	158	0.38
Site Preparation	Graders	2	6.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Site Preparation	Sweepers/Scrubbers	1	6.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Bore/Drill Rigs	2	6.00	221	0.50
Grading	Crawler Tractors	6	6.00	212	0.43
Grading	Excavators	5	6.00	158	0.38
Grading	Generator Sets	4	8.00	84	0.74
Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Tractors	2	6.00	124	0.44
Grading	Off-Highway Trucks	4	6.00	402	0.38
Grading	Other Construction Equipment	6	6.00	172	0.42
Grading	Plate Compactors	4	6.00	8	0.43
Paving	Paving Equipment	2	8.00	132	0.36
Grading	Rubber Tired Loaders	1	6.00	203	0.36
Grading	Scrapers	6	6.00	367	0.48
Grading	Sweepers/Scrubbers	1	6.00	64	0.46
Grading	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Paving	Concrete/Industrial Saws	1	6.00	81	0.73

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

Paving	Cranes	2	3.00	231	0.29
Paving	Crawler Tractors	1	6.00	212	0.43
Paving	Excavators	1	6.00	158	0.38
Paving	Generator Sets	4	8.00	84	0.74
Paving	Graders	2	6.00	187	0.41
Paving	Off-Highway Tractors	4	6.00	124	0.44
Paving	Other Construction Equipment	4	6.00	172	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Paving	Plate Compactors	4	6.00	8	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Paving	Rubber Tired Loaders	1	6.00	203	0.36
Paving	Sweepers/Scrubbers	1	6.00	64	0.46
Paving	Tractors/Loaders/Backhoes	4	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	12	23.00	0.00	176.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Grading	48	118.00	0.00	96,542.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Paving	35	73.00	0.00	0.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

Use Cleaner Engines for Construction Equipment
 Use Oxidation Catalyst for Construction Equipment
 Use Soil Stabilizer
 Replace Ground Cover
 Water Exposed Area
 Water Unpaved Roads
 Reduce Vehicle Speed on Unpaved Roads
 Clean Paved Roads

3.2 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.7100e-003	0.0000	1.7100e-003	2.6000e-004	0.0000	2.6000e-004			0.0000			0.0000
Off-Road	5.7729	64.6817	28.6731	0.0661		2.8675	2.8675		2.6381	2.6381		6,402.4267	6,402.4267	2.0707		6,454.1936
Total	5.7729	64.6817	28.6731	0.0661	1.7100e-003	2.8675	2.8692	2.6000e-004	2.6381	2.6384		6,402.4267	6,402.4267	2.0707		6,454.1936

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

3.2 Site Preparation - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.4800e-003	0.2119	0.0210	4.6000e-004	9.3800e-003	3.0000e-004	9.6800e-003	2.4700e-003	2.9000e-004	2.7600e-003		48.4574	48.4574	5.3600e-003		48.5915
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1391	0.0856	1.0760	1.9900e-003	0.1924	1.2200e-003	0.1937	0.0510	1.1200e-003	0.0522		197.9714	197.9714	8.9500e-003		198.1951
Total	0.1436	0.2975	1.0970	2.4500e-003	0.2018	1.5200e-003	0.2033	0.0535	1.4100e-003	0.0549		246.4287	246.4287	0.0143		246.7866

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0000e-004	0.0000	6.0000e-004	9.0000e-005	0.0000	9.0000e-005			0.0000			0.0000
Off-Road	3.7356	35.5046	34.4282	0.0661		1.7312	1.7312		1.5980	1.5980	0.0000	6,402.4267	6,402.4267	2.0707		6,454.1936
Total	3.7356	35.5046	34.4282	0.0661	6.0000e-004	1.7312	1.7318	9.0000e-005	1.5980	1.5981	0.0000	6,402.4267	6,402.4267	2.0707		6,454.1936

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

3.2 Site Preparation - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.4800e-003	0.2119	0.0210	4.6000e-004	8.5900e-003	3.0000e-004	8.8900e-003	2.2800e-003	2.9000e-004	2.5600e-003		48.4574	48.4574	5.3600e-003		48.5915
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1391	0.0856	1.0760	1.9900e-003	0.1757	1.2200e-003	0.1769	0.0469	1.1200e-003	0.0481		197.9714	197.9714	8.9500e-003		198.1951
Total	0.1436	0.2975	1.0970	2.4500e-003	0.1843	1.5200e-003	0.1858	0.0492	1.4100e-003	0.0506		246.4287	246.4287	0.0143		246.7866

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3428	0.0000	1.3428	0.6364	0.0000	0.6364			0.0000			0.0000
Off-Road	17.6328	194.3027	126.6723	0.2736		8.3754	8.3754		7.7706	7.7706		26,404.3727	26,404.3727	7.8513		26,600.6555
Total	17.6328	194.3027	126.6723	0.2736	1.3428	8.3754	9.7182	0.6364	7.7706	8.4069		26,404.3727	26,404.3727	7.8513		26,600.6555

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

3.3 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7503	35.4852	3.5134	0.0773	1.7000	0.0502	1.7502	0.4457	0.0480	0.4937		8,116.1899	8,116.1899	0.8984		8,138.6492
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7137	0.4394	5.5204	0.0102	0.9873	6.2400e-003	0.9935	0.2619	5.7500e-003	0.2676		1,015.6791	1,015.6791	0.0459		1,016.8271
Total	1.4640	35.9246	9.0338	0.0875	2.6873	0.0564	2.7437	0.7076	0.0538	0.7613		9,131.8691	9,131.8691	0.9443		9,155.4763

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4713	0.0000	0.4713	0.2234	0.0000	0.2234			0.0000			0.0000
Off-Road	4.2852	21.6613	147.5490	0.2736		0.9793	0.9793		0.9349	0.9349	0.0000	26,404.3727	26,404.3727	7.8513		26,600.6555
Total	4.2852	21.6613	147.5490	0.2736	0.4713	0.9793	1.4506	0.2234	0.9349	1.1583	0.0000	26,404.3727	26,404.3727	7.8513		26,600.6555

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

3.3 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7503	35.4852	3.5134	0.0773	1.5542	0.0502	1.6044	0.4099	0.0480	0.4579		8,116.1899	8,116.1899	0.8984		8,138.6492
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7137	0.4394	5.5204	0.0102	0.9015	6.2400e-003	0.9077	0.2408	5.7500e-003	0.2466		1,015.6791	1,015.6791	0.0459		1,016.8271
Total	1.4640	35.9246	9.0338	0.0875	2.4557	0.0564	2.5121	0.6507	0.0538	0.7045		9,131.8691	9,131.8691	0.9443		9,155.4763

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3428	0.0000	1.3428	0.6364	0.0000	0.6364			0.0000			0.0000
Off-Road	16.2552	174.8762	123.0693	0.2737		7.4379	7.4379		6.8989	6.8989		26,409.3034	26,409.3034	7.8398		26,605.2972
Total	16.2552	174.8762	123.0693	0.2737	1.3428	7.4379	8.7807	0.6364	6.8989	7.5353		26,409.3034	26,409.3034	7.8398		26,605.2972

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

3.3 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7128	33.7152	3.4062	0.0766	1.7074	0.0435	1.7509	0.4475	0.0416	0.4891		8,047.736 1	8,047.736 1	0.8446		8,068.850 1
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6632	0.3990	5.1114	9.8800e-003	0.9873	6.0800e-003	0.9934	0.2619	5.6000e-003	0.2675		981.5081	981.5081	0.0420		982.5582
Total	1.3760	34.1142	8.5175	0.0865	2.6947	0.0496	2.7442	0.7094	0.0472	0.7566		9,029.244 2	9,029.244 2	0.8866		9,051.408 3

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4713	0.0000	0.4713	0.2234	0.0000	0.2234			0.0000			0.0000
Off-Road	4.2521	21.3004	147.4552	0.2737		0.9568	0.9568		0.9142	0.9142	0.0000	26,409.30 34	26,409.30 34	7.8398		26,605.29 72
Total	4.2521	21.3004	147.4552	0.2737	0.4713	0.9568	1.4281	0.2234	0.9142	1.1375	0.0000	26,409.30 34	26,409.30 34	7.8398		26,605.29 72

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7128	33.7152	3.4062	0.0766	1.5609	0.0435	1.6044	0.4116	0.0416	0.4532		8,047.736 1	8,047.736 1	0.8446		8,068.850 1
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6632	0.3990	5.1114	9.8800e-003	0.9015	6.0800e-003	0.9076	0.2408	5.6000e-003	0.2464		981.5081	981.5081	0.0420		982.5582
Total	1.3760	34.1142	8.5175	0.0865	2.4623	0.0496	2.5119	0.6524	0.0472	0.6996		9,029.244 2	9,029.244 2	0.8866		9,051.408 3

3.4 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	8.4343	87.5643	72.7085	0.1279		4.3673	4.3673		4.0950	4.0950		12,278.80 54	12,278.80 54	3.1672		12,357.98 58
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	8.4343	87.5643	72.7085	0.1279		4.3673	4.3673		4.0950	4.0950		12,278.80 54	12,278.80 54	3.1672		12,357.98 58

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

3.4 Paving - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4415	0.2718	3.4152	6.3300e-003	0.6108	3.8600e-003	0.6146	0.1620	3.5500e-003	0.1656		628.3439	628.3439	0.0284		629.0540
Total	0.4415	0.2718	3.4152	6.3300e-003	0.6108	3.8600e-003	0.6146	0.1620	3.5500e-003	0.1656		628.3439	628.3439	0.0284		629.0540

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5827	18.3900	81.1922	0.1279		0.9132	0.9132		0.8529	0.8529	0.0000	12,278.8053	12,278.8053	3.1672		12,357.9858
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.5827	18.3900	81.1922	0.1279		0.9132	0.9132		0.8529	0.8529	0.0000	12,278.8053	12,278.8053	3.1672		12,357.9858

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

3.4 Paving - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4415	0.2718	3.4152	6.3300e-003	0.5577	3.8600e-003	0.5616	0.1490	3.5500e-003	0.1525		628.3439	628.3439	0.0284		629.0540
Total	0.4415	0.2718	3.4152	6.3300e-003	0.5577	3.8600e-003	0.5616	0.1490	3.5500e-003	0.1525		628.3439	628.3439	0.0284		629.0540

3.4 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	7.6653	78.9298	72.0997	0.1278		3.8159	3.8159		3.5770	3.5770		12,276.3528	12,276.3528	3.1509		12,355.1259
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	7.6653	78.9298	72.0997	0.1278		3.8159	3.8159		3.5770	3.5770		12,276.3528	12,276.3528	3.1509		12,355.1259

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

3.4 Paving - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4103	0.2469	3.1621	6.1100e-003	0.6108	3.7600e-003	0.6145	0.1620	3.4700e-003	0.1655		607.2042	607.2042	0.0260		607.8538
Total	0.4103	0.2469	3.1621	6.1100e-003	0.6108	3.7600e-003	0.6145	0.1620	3.4700e-003	0.1655		607.2042	607.2042	0.0260		607.8538

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4817	17.2435	81.1933	0.1278		0.8381	0.8381		0.7839	0.7839	0.0000	12,276.3528	12,276.3528	3.1509		12,355.1259
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4817	17.2435	81.1933	0.1278		0.8381	0.8381		0.7839	0.7839	0.0000	12,276.3528	12,276.3528	3.1509		12,355.1259

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

3.4 Paving - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4103	0.2469	3.1621	6.1100e-003	0.5577	3.7600e-003	0.5615	0.1490	3.4700e-003	0.1524		607.2042	607.2042	0.0260		607.8538
Total	0.4103	0.2469	3.1621	6.1100e-003	0.5577	3.7600e-003	0.5615	0.1490	3.4700e-003	0.1524		607.2042	607.2042	0.0260		607.8538

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.490441	0.036099	0.183975	0.121725	0.015214	0.005252	0.022424	0.112230	0.002972	0.001873	0.006187	0.000783	0.000825

5.0 Energy Detail

Historical Energy Use: N

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5131	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005		5.8600e-003
Unmitigated	0.5131	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005		5.8600e-003

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1251					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005		5.8600e-003
Total	0.5131	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005		5.8600e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1251					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005		5.8600e-003
Total	0.5131	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005		5.8600e-003

7.0 Water Detail

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Summer

7.1 Mitigation Measures Water**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening
Salton Sea Air Basin, Winter**1.0 Project Characteristics**

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	25.13	Acre	136.27	1,094,662.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

Project Characteristics -

Land Use - Project consists of slope lining and channel widening.

Construction Phase - Assumes a 18 month buildout from March 2020 to November 2021.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineers.

Off-road Equipment - Equipment list provided by project engineer.

Off-road Equipment - Equipment list provided by project engineer.

Trips and VMT - Haul trip lengths based on actual import/export locations within project area.

On-road Fugitive Dust - All roads within project area are paved.

Grading - Import/export quantities provided by project engineer. Includes concrete, reinforcing steel, and surplus soil.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - Assumes adherence to standard dust control measures per SCAQMD Rule 401.3 (Coachella Valley) and use of oxidation catalysts on all construction equipment with a reduction equivalent of 30%.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	10
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	310.00	393.00
tblConstructionPhase	NumDays	220.00	392.00
tblGrading	AcresOfGrading	2,947.50	136.00
tblGrading	AcresOfGrading	180.00	0.00
tblGrading	MaterialExported	0.00	772,333.00
tblGrading	MaterialImported	0.00	37,200.00
tblGrading	MaterialImported	0.00	1,776.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentBulldozing	7.90	10.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialMoistureContentTruckLoading	12.00	15.00
tblGrading	MaterialSiltContent	6.90	2.00
tblGrading	MaterialSiltContent	6.90	0.00
tblLandUse	LotAcreage	25.13	136.27
tblOffRoadEquipment	HorsePower	64.00	247.00
tblOffRoadEquipment	LoadFactor	0.46	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	HaulingTripLength	20.00	4.50
tblTripsAndVMT	WorkerTripNumber	30.00	23.00
tblTripsAndVMT	WorkerTripNumber	120.00	118.00
tblTripsAndVMT	WorkerTripNumber	88.00	73.00

2.0 Emissions Summary

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	33.7408	382.3036	240.2578	0.5551	4.8443	15.6756	20.5199	1.5597	14.5657	16.1254	0.0000	54,197.40 39	54,197.40 39	14.1772	0.0000	54,551.83 41
2021	25.5970	287.4192	205.9035	0.4859	4.6482	11.3103	15.9585	1.5078	10.5297	12.0374	0.0000	47,473.97 90	47,473.97 90	12.0007	0.0000	47,773.99 65
Maximum	33.7408	382.3036	240.2578	0.5551	4.8443	15.6756	20.5199	1.5597	14.5657	16.1254	0.0000	54,197.40 39	54,197.40 39	14.1772	0.0000	54,551.83 41

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	12.5042	111.3109	275.3733	0.5551	3.6696	3.6889	7.3585	1.0724	3.4479	4.5203	0.0000	54,197.40 39	54,197.40 39	14.1772	0.0000	54,551.83 41
2021	8.4102	72.1571	239.3831	0.4859	3.4913	1.8514	5.3427	1.0247	1.7518	2.7765	0.0000	47,473.97 89	47,473.97 89	12.0007	0.0000	47,773.99 64
Maximum	12.5042	111.3109	275.3733	0.5551	3.6696	3.6889	7.3585	1.0724	3.4479	4.5203	0.0000	54,197.40 39	54,197.40 39	14.1772	0.0000	54,551.83 41

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	64.75	72.61	-15.37	0.00	24.56	79.47	65.18	31.64	79.28	74.09	0.00	0.00	0.00	0.00	0.00	0.00

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5131	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005		5.8600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.5131	2.0000e-005	2.5700e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005	0.0000	5.8600e-003

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5131	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005		5.8600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.5131	2.0000e-005	2.5700e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005	0.0000	5.8600e-003

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2020	6/1/2020	5	120	
2	Grading	Grading	4/1/2020	10/1/2021	5	393	
3	Paving	Paving	5/1/2020	11/1/2021	5	392	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 136

Acres of Paving: 136.27

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Bore/Drill Rigs	2	6.00	221	0.50
	Crawler Tractors	6	6.00	212	0.43
	Excavators	5	6.00	158	0.38
	Generator Sets	4	8.00	84	0.74
	Graders	2	6.00	187	0.41
	Off-Highway Tractors	2	6.00	124	0.44
	Off-Highway Trucks	4	6.00	402	0.38

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

	Other Construction Equipment	6	6.00	172	0.42
	Plate Compactors	4	6.00	8	0.43
	Rubber Tired Loaders	1	6.00	203	0.36
	Scrapers	6	6.00	367	0.48
	Sweepers/Scrubbers	1	6.00	64	0.46
	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Site Preparation	Crawler Tractors	2	6.00	212	0.43
Site Preparation	Excavators	2	6.00	158	0.38
Site Preparation	Graders	2	6.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Site Preparation	Sweepers/Scrubbers	1	6.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Bore/Drill Rigs	2	6.00	221	0.50
Grading	Crawler Tractors	6	6.00	212	0.43
Grading	Excavators	5	6.00	158	0.38
Grading	Generator Sets	4	8.00	84	0.74
Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Tractors	2	6.00	124	0.44
Grading	Off-Highway Trucks	4	6.00	402	0.38
Grading	Other Construction Equipment	6	6.00	172	0.42
Grading	Plate Compactors	4	6.00	8	0.43
Paving	Paving Equipment	2	8.00	132	0.36
Grading	Rubber Tired Loaders	1	6.00	203	0.36
Grading	Scrapers	6	6.00	367	0.48
Grading	Sweepers/Scrubbers	1	6.00	64	0.46
Grading	Tractors/Loaders/Backhoes	4	6.00	97	0.37
Paving	Concrete/Industrial Saws	1	6.00	81	0.73

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

Paving	Cranes	2	3.00	231	0.29
Paving	Crawler Tractors	1	6.00	212	0.43
Paving	Excavators	1	6.00	158	0.38
Paving	Generator Sets	4	8.00	84	0.74
Paving	Graders	2	6.00	187	0.41
Paving	Off-Highway Tractors	4	6.00	124	0.44
Paving	Other Construction Equipment	4	6.00	172	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Paving	Plate Compactors	4	6.00	8	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Paving	Rubber Tired Loaders	1	6.00	203	0.36
Paving	Sweepers/Scrubbers	1	6.00	64	0.46
Paving	Tractors/Loaders/Backhoes	4	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	12	23.00	0.00	176.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Grading	48	118.00	0.00	96,542.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT
Paving	35	73.00	0.00	0.00	11.00	5.40	4.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

Use Cleaner Engines for Construction Equipment
 Use Oxidation Catalyst for Construction Equipment
 Use Soil Stabilizer
 Replace Ground Cover
 Water Exposed Area
 Water Unpaved Roads
 Reduce Vehicle Speed on Unpaved Roads
 Clean Paved Roads

3.2 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.7100e-003	0.0000	1.7100e-003	2.6000e-004	0.0000	2.6000e-004			0.0000			0.0000
Off-Road	5.7729	64.6817	28.6731	0.0661		2.8675	2.8675		2.6381	2.6381		6,402.4267	6,402.4267	2.0707		6,454.1936
Total	5.7729	64.6817	28.6731	0.0661	1.7100e-003	2.8675	2.8692	2.6000e-004	2.6381	2.6384		6,402.4267	6,402.4267	2.0707		6,454.1936

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

3.2 Site Preparation - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.9500e-003	0.2073	0.0299	4.3000e-004	9.3800e-003	3.2000e-004	9.7000e-003	2.4700e-003	3.1000e-004	2.7800e-003		44.8930	44.8930	6.0700e-003		45.0446
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1146	0.0883	0.7705	1.6700e-003	0.1924	1.2200e-003	0.1937	0.0510	1.1200e-003	0.0522		166.3443	166.3443	7.0800e-003		166.5212
Total	0.1196	0.2956	0.8004	2.1000e-003	0.2018	1.5400e-003	0.2034	0.0535	1.4300e-003	0.0549		211.2373	211.2373	0.0132		211.5658

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0000e-004	0.0000	6.0000e-004	9.0000e-005	0.0000	9.0000e-005			0.0000			0.0000
Off-Road	3.7356	35.5046	34.4282	0.0661		1.7312	1.7312		1.5980	1.5980	0.0000	6,402.4267	6,402.4267	2.0707		6,454.1936
Total	3.7356	35.5046	34.4282	0.0661	6.0000e-004	1.7312	1.7318	9.0000e-005	1.5980	1.5981	0.0000	6,402.4267	6,402.4267	2.0707		6,454.1936

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

3.2 Site Preparation - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.9500e-003	0.2073	0.0299	4.3000e-004	8.5900e-003	3.2000e-004	8.9100e-003	2.2800e-003	3.1000e-004	2.5800e-003		44.8930	44.8930	6.0700e-003		45.0446
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1146	0.0883	0.7705	1.6700e-003	0.1757	1.2200e-003	0.1769	0.0469	1.1200e-003	0.0481		166.3443	166.3443	7.0800e-003		166.5212
Total	0.1196	0.2956	0.8004	2.1000e-003	0.1843	1.5400e-003	0.1858	0.0492	1.4300e-003	0.0506		211.2373	211.2373	0.0132		211.5658

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3428	0.0000	1.3428	0.6364	0.0000	0.6364			0.0000			0.0000
Off-Road	17.6328	194.3027	126.6723	0.2736		8.3754	8.3754		7.7706	7.7706		26,404.3727	26,404.3727	7.8513		26,600.6555
Total	17.6328	194.3027	126.6723	0.2736	1.3428	8.3754	9.7182	0.6364	7.7706	8.4069		26,404.3727	26,404.3727	7.8513		26,600.6555

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

3.3 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.8295	34.7262	5.0051	0.0716	1.7000	0.0536	1.7536	0.4457	0.0513	0.4970		7,519.1811	7,519.1811	1.0161		7,544.5836
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5880	0.4529	3.9530	8.5800e-003	0.9873	6.2400e-003	0.9935	0.2619	5.7500e-003	0.2676		853.4185	853.4185	0.0363		854.3261
Total	1.4175	35.1791	8.9581	0.0802	2.6873	0.0599	2.7472	0.7076	0.0571	0.7646		8,372.5996	8,372.5996	1.0524		8,398.9096

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4713	0.0000	0.4713	0.2234	0.0000	0.2234			0.0000			0.0000
Off-Road	4.2852	21.6613	147.5490	0.2736		0.9793	0.9793		0.9349	0.9349	0.0000	26,404.3727	26,404.3727	7.8513		26,600.6555
Total	4.2852	21.6613	147.5490	0.2736	0.4713	0.9793	1.4506	0.2234	0.9349	1.1583	0.0000	26,404.3727	26,404.3727	7.8513		26,600.6555

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

3.3 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.8295	34.7262	5.0051	0.0716	1.5542	0.0536	1.6079	0.4099	0.0513	0.4613		7,519.1811	7,519.1811	1.0161		7,544.5836
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5880	0.4529	3.9530	8.5800e-003	0.9015	6.2400e-003	0.9077	0.2408	5.7500e-003	0.2466		853.4185	853.4185	0.0363		854.3261
Total	1.4175	35.1791	8.9581	0.0802	2.4557	0.0599	2.5156	0.6507	0.0571	0.7078		8,372.5996	8,372.5996	1.0524		8,398.9096

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3428	0.0000	1.3428	0.6364	0.0000	0.6364			0.0000			0.0000
Off-Road	16.2552	174.8762	123.0693	0.2737		7.4379	7.4379		6.8989	6.8989		26,409.3034	26,409.3034	7.8398		26,605.2972
Total	16.2552	174.8762	123.0693	0.2737	1.3428	7.4379	8.7807	0.6364	6.8989	7.5353		26,409.3034	26,409.3034	7.8398		26,605.2972

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

3.3 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7885	32.9482	4.8294	0.0709	1.7074	0.0467	1.7541	0.4475	0.0447	0.4922		7,453.4069	7,453.4069	0.9562		7,477.3118
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5486	0.4109	3.6482	8.2900e-003	0.9873	6.0800e-003	0.9934	0.2619	5.6000e-003	0.2675		824.7124	824.7124	0.0333		825.5438
Total	1.3371	33.3590	8.4777	0.0792	2.6947	0.0528	2.7474	0.7094	0.0503	0.7597		8,278.1193	8,278.1193	0.9895		8,302.8556

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4713	0.0000	0.4713	0.2234	0.0000	0.2234			0.0000			0.0000
Off-Road	4.2521	21.3004	147.4552	0.2737		0.9568	0.9568		0.9142	0.9142	0.0000	26,409.3034	26,409.3034	7.8398		26,605.2972
Total	4.2521	21.3004	147.4552	0.2737	0.4713	0.9568	1.4281	0.2234	0.9142	1.1375	0.0000	26,409.3034	26,409.3034	7.8398		26,605.2972

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7885	32.9482	4.8294	0.0709	1.5609	0.0467	1.6076	0.4116	0.0447	0.4562		7,453.4069	7,453.4069	0.9562		7,477.3118
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5486	0.4109	3.6482	8.2900e-003	0.9015	6.0800e-003	0.9076	0.2408	5.6000e-003	0.2464		824.7124	824.7124	0.0333		825.5438
Total	1.3371	33.3590	8.4777	0.0792	2.4623	0.0528	2.5151	0.6524	0.0503	0.7026		8,278.1193	8,278.1193	0.9895		8,302.8556

3.4 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	8.4343	87.5643	72.7085	0.1279		4.3673	4.3673		4.0950	4.0950		12,278.8054	12,278.8054	3.1672		12,357.9858
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	8.4343	87.5643	72.7085	0.1279		4.3673	4.3673		4.0950	4.0950		12,278.8054	12,278.8054	3.1672		12,357.9858

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

3.4 Paving - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3637	0.2802	2.4455	5.3100e-003	0.6108	3.8600e-003	0.6146	0.1620	3.5500e-003	0.1656		527.9623	527.9623	0.0225		528.5238
Total	0.3637	0.2802	2.4455	5.3100e-003	0.6108	3.8600e-003	0.6146	0.1620	3.5500e-003	0.1656		527.9623	527.9623	0.0225		528.5238

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5827	18.3900	81.1922	0.1279		0.9132	0.9132		0.8529	0.8529	0.0000	12,278.8053	12,278.8053	3.1672		12,357.9858
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.5827	18.3900	81.1922	0.1279		0.9132	0.9132		0.8529	0.8529	0.0000	12,278.8053	12,278.8053	3.1672		12,357.9858

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

3.4 Paving - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3637	0.2802	2.4455	5.3100e-003	0.5577	3.8600e-003	0.5616	0.1490	3.5500e-003	0.1525		527.9623	527.9623	0.0225		528.5238
Total	0.3637	0.2802	2.4455	5.3100e-003	0.5577	3.8600e-003	0.5616	0.1490	3.5500e-003	0.1525		527.9623	527.9623	0.0225		528.5238

3.4 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	7.6653	78.9298	72.0997	0.1278		3.8159	3.8159		3.5770	3.5770		12,276.3528	12,276.3528	3.1509		12,355.1259
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	7.6653	78.9298	72.0997	0.1278		3.8159	3.8159		3.5770	3.5770		12,276.3528	12,276.3528	3.1509		12,355.1259

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

3.4 Paving - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3394	0.2542	2.2570	5.1300e-003	0.6108	3.7600e-003	0.6145	0.1620	3.4700e-003	0.1655		510.2035	510.2035	0.0206		510.7178
Total	0.3394	0.2542	2.2570	5.1300e-003	0.6108	3.7600e-003	0.6145	0.1620	3.4700e-003	0.1655		510.2035	510.2035	0.0206		510.7178

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4817	17.2435	81.1933	0.1278		0.8381	0.8381		0.7839	0.7839	0.0000	12,276.3528	12,276.3528	3.1509		12,355.1259
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4817	17.2435	81.1933	0.1278		0.8381	0.8381		0.7839	0.7839	0.0000	12,276.3528	12,276.3528	3.1509		12,355.1259

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

3.4 Paving - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3394	0.2542	2.2570	5.1300e-003	0.5577	3.7600e-003	0.5615	0.1490	3.4700e-003	0.1524		510.2035	510.2035	0.0206		510.7178
Total	0.3394	0.2542	2.2570	5.1300e-003	0.5577	3.7600e-003	0.5615	0.1490	3.4700e-003	0.1524		510.2035	510.2035	0.0206		510.7178

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.490441	0.036099	0.183975	0.121725	0.015214	0.005252	0.022424	0.112230	0.002972	0.001873	0.006187	0.000783	0.000825

5.0 Energy Detail

Historical Energy Use: N

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5131	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005		5.8600e-003
Unmitigated	0.5131	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005		5.8600e-003

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1251					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005		5.8600e-003
Total	0.5131	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005		5.8600e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1251					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005		5.8600e-003
Total	0.5131	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5000e-003	5.5000e-003	1.0000e-005		5.8600e-003

7.0 Water Detail

CVWD CVSC Improvement Project: Alt. C Slope Lining and Widening - Salton Sea Air Basin, Winter

7.1 Mitigation Measures Water**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation
