APPENDIX 9

Greenhouse Gas Technical Report

GREENHOUSE GAS TECHNICAL REPORT

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Inland Empire Utilities Agency
Chino Basin Program

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ATTACHMENTS

1. INTRODUCTION

This report describes environmental and regulatory setting related to greenhouse gases and climate change in the proposed Chino Basin Program (CBP, or Proposed Project) area. The report then describes the methodology and thresholds relied upon to assess the impacts of the Proposed Project. Finally, it identifies the impacts of the Proposed Project. This report discusses the Proposed Project impacts associated with emissions of greenhouse gases.

2. PROJECT DESCRIPTION

The CBP consists of an advanced water purification facility (AWPF), injection wells, extraction wells, groundwater treatment facilities, and a pipeline distribution network connecting the proposed facilities to local agencies and Metropolitan Water District of Southern California (MWD) for a water exchange with the State Water Project (SWP). The CBP AWPF and groundwater injection facilities would allow for the recharge/storage of up to 15,000 acre-feet per year (AFY) of recycled water in the Chino Basin, creating a new local supply. The AWPF would process 17,000 AFY of recycled water, which includes currently unused recycled water and 6,000 AFY of external supplies; 2,000 AFY of water will be lost through the AWPF process each year. The CBP would connect CBP potable water facilities to the region, as well as connections to MWD with the ability to pump CBP potable supplies into MWD's water distribution system. This connection would allow the CBP to make 50,000 AFY available to MWD in dry or critically dry years in exchange for the same amount of supply from the SWP. In return, 50,000 AFY that would otherwise have been exported to MWD would be stored in Lake Oroville and used to enhance instream flows in the Feather River. **Figure 1** shows a proposed conceptual layout of the key facilities.

The CBP will provide for an exchange of new water supplies in the Chino Basin for SWP supplies in Lake Oroville in northern California that would otherwise be delivered to southern California. The additional Lake Oroville water would subsequently be released in the form of pulse flows in the Feather River to improve habitat conditions for native salmonids and achieve environmental benefits. The 15,000 AFY of new water supply would be produced for a period of 25 years to provide for the State exchange, to be used in blocks of up to 50,000 AFY in dry and critical years when pulse flows in the Feather River would provide the most ecosystem benefit. The term for this exchange will be fixed at 25 years for a total volume of 375,000 acre-feet, after which time the CBP will be devoted to meeting local water management needs while fulfilling commitments to improve water quality in the Chino Basin and provide a source of emergency water supply. The program would be administered through agreements with California Department of Water Resources (DWR), California Department of Fish and Wildlife (CDFW), MWD, and other project partners. For every acre-foot (AF) of water requested for north of the Delta ecosystem benefits, IEUA would pump locally stored groundwater and deliver it to MWD or use the water locally instead of taking raw imported water from MWD. MWD would then leave behind an equivalent amount of water in Lake Oroville to be dedicated and released for the requested ecosystem benefit. The 375,000 AF would be recharged over 25 years and the same amount would be extracted over 25 years.

Figure 1: Conceptual Chino Basin Program Infrastructure

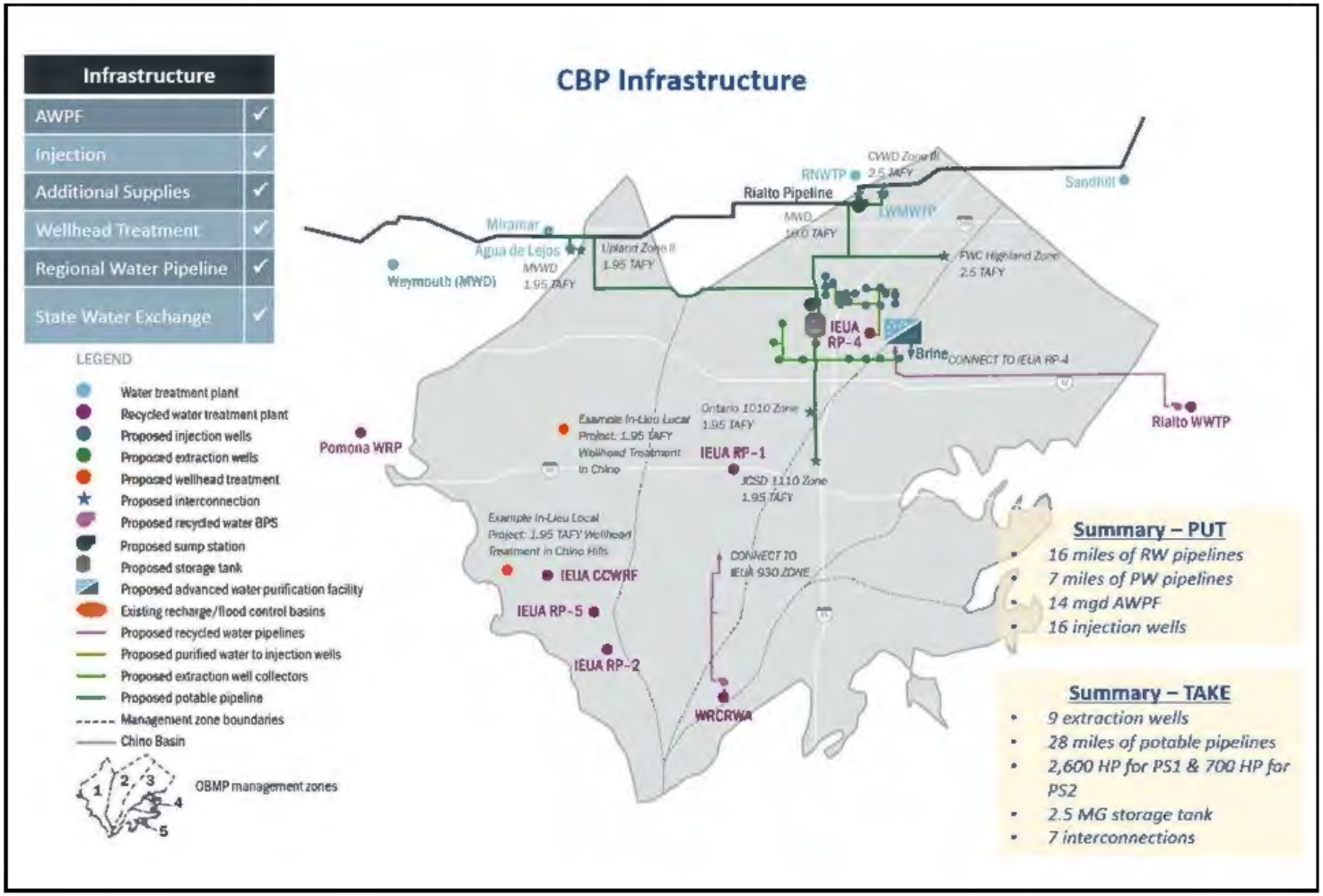


FIGURE 1

Tom Dodson & Associates
Environmental Consultants

CBP Infrastructure

The Proposed Project includes two main categories of facilities: "Put" and "Take" components. The "Put" facilities include the components to recharge purified water to the Chino Basin, while the "Take" facilities include the components to extract groundwater and convey potable water supply from the Chino Basin. These components are summarized in **Table 1** and described in detail in **Table 2**.

Table 1: Summary of "Put" and "Take" Components of the Chino Basin Program

"Put" Components	"Take" Components
• Tertiary recycled water supply and conveyance • AWPF • Purified water pumping and conveyance • Groundwater recharge (injection wells and/or use of existing recharge basins)	• Groundwater extraction and treatment • Potable water pumping and conveyance • Potable water usage (MWD pump back or in-lieu)

Table 2: Detail of Chino Basin Program Infrastructure

Project Category	Infrastructure
Project Category 1: Well Development	16 injection wells (maximum) with max operational capacity of 830 gpm each 17 extraction wells (maximum) with max operational capacity of 2,000 gpm each 4 monitoring wells (maximum) Use of existing wells including a mix of up to 4 of the following: • Use of existing Rialto Pipeline • Use of existing member agency wells • Use of existing Agua de Lejos Water Treatment Plant (WTP) Clearwell • Use of existing Lloyd Michael WTP Clearwell
Project Category 2: Conveyance Facilities and Ancillary Facilities	Pipeline: The CBP would ultimately install a total of about 30 miles or 158,400 linear feet (LF) of various types of pipeline. Potential alignments include a mix of the following: • TAKE 1: 9 miles of 12- to 36-inch collector pipelines • TAKE 1: 5 miles of 54-inch potable northern pipeline • TAKE 3: 9 miles of 12- to 42-inch collector pipelines • TAKE 3: 8 miles of 16- through 48-in potable northern pipeline • TAKE 3: 4 miles of 12- through 24-inch potable southern pipeline • TAKE 3: In lieu Brine Disposal Inland Empire Brine Line (IEBL) 6,800 ft 8" pipeline, possible jack and bore across 300 ft under Hwy 71 and Chino Creek • TAKE 7: 7 miles of 36- to 72-inch e/w Water Facilities Authority (WFA) pipeline • TAKE 7: 4.5 miles 24-inch e/w Fontana Water Company (FWC) pipeline • TAKE 7: 4.5 miles 54- to 72-inch & 36-inch Cucamonga Valley Water District (CVWD)/ MWD pipeline • TAKE 7: 0.3 miles 54- to 72-inch MWD pipeline • TAKE 8: 6.3 miles of 48-inch CVWD pipeline • TAKE 8: 7 miles of 24-inch FWC-1 pipeline • TAKE 8: 0.7 miles of 24-inch FWC-2 pipeline • TAKE 8: 0.8 miles of 24-inch MWD pipeline • TAKE 8: 36-inch Jurupa Community Services District (JCSD) 2 miles • PUT 5: 7.1 miles of 8- to 30-inch pipeline for purified water conveyance • PUT 5: 1,400 ft (8-foot pipeline) Non-Reclaimable Wastewater System (NRWS) brine conveyance; NRWS Capacity Units required: 2,603 Reservoir: The CBP would install a storage tank with a maximum capacity of 5 MG with possible and in-conduit hydropower facility. Pump Stations: The CBP would install 4 pump stations serving various PUT and TAKE facilities. One pump station would serve PUT facilities, while up to 3 pump stations would

Project Category	Infrastructure
	support TAKE facilities. The breakdown of the types of pump stations and boosters include a mix of the following: • PUT 5: Pump station at Regional Water Recycling Plant No. 4 (RP-4) 1,500 HP • TAKE 1: Pump Station with a max 9,300 HP, and a max of 31,100 gpm, 823 ft total dynamic head (TDH) • TAKE 3: Potable Water Pump Station #1 with a max 7,000 HP, 23,300 gpm firm capacity, 823 ft TDH • TAKE 7: WFA Booster at 1,700 HP • TAKE 7: FWC Booster at 300 HP • TAKE 7: CVWD/MWD Booster at 4,800 HP • TAKE 8: Booster Station #1 at 5,300 HP • TAKE 8: MWD Booster at 650 HP • An additional TAKE pump station would have a max 650 HP Turnouts: The CBP would install a maximum of 6 turn-outs that would be between 12" and 72" in size to support TAKE facilities at various member agency locations throughout the Chino Basin
Project Category 3: Groundwater Storage Increase	The CBP contemplates a permanent increase in Safe Storage Capacity of 850,000 AF
Project Category 4: Advanced Water Purification Facility and Other Water Treatment Facilities	AWPF: The CBP would install an AWPF at RP-4, which will ultimately have a capacity of 15,000 AFY. The intake of recycled water at this facility will total 17,000 AFY, with a resulting 15,000 AFY of purified water derived from the AWPF processes. Wellhead Treatment: The CBP may install up to 3 wellhead treatment facilities at locations that have yet to be selected but would be sited at existing member agency offline wells. These wellhead treatment systems would be capable of treating up to 3,000 AFY per wellhead treatment system. Each of the 3 wellhead treatment systems would be connected to 3 existing member agency wells (total of 9 existing extraction wells used for the CBP). Wellhead treatment also includes the following brine conveyance and disposal: • Disposal Capacity: 4,900 gpd per wellhead treatment system • Pipeline Length: up to 6,800 LF (8-inch) • Disposal System: Assumed utilization of IEBL

2.1 Construction

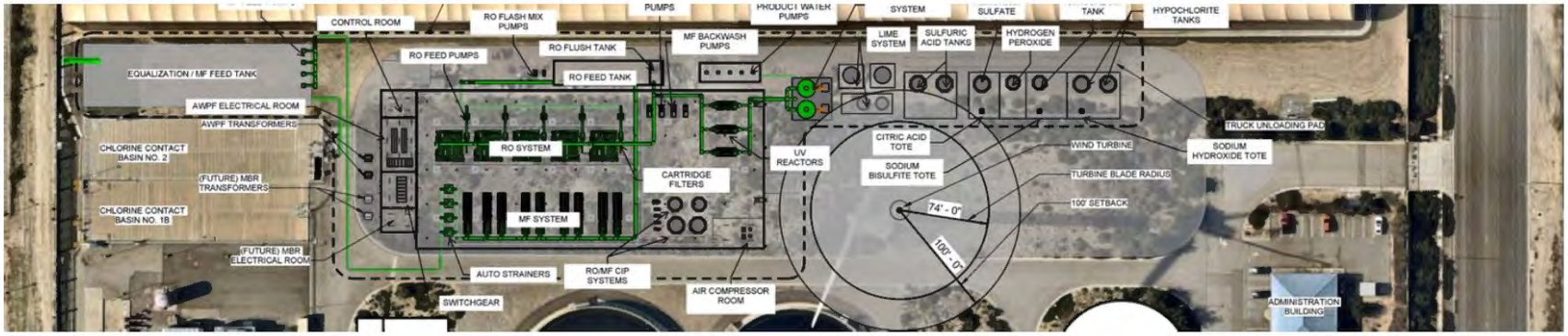
The following section summarizes the construction activity details for each Proposed Project component. The overall assumed construction vehicle fleet can be found in **Table 3**.

2.1.1 AWPF

The installation of the AWPF at IEUA's existing RP-4, located in the City of Rancho Cucamonga, would require approximately 12 months to construct. It is anticipated that the AWPF would be operational by 2028. The construction of the AWPF would consist of site clearing, grading, construction of facilities, installation of equipment, and site completion. Construction equipment would include the following: one bulldozer or motor grader, backhoes, loaders, dump trucks, crew trucks, concrete trucks, cranes, personal vehicles, compactor, delivery trucks, and a water truck. It is anticipated that the maximum number of construction personnel at a site on any given day will be 20 persons. The maximum number of truck deliveries is forecasted at 15 per day at 40-miles round-trip per day of construction. Materials and equipment would be delivered to the site including piping, building materials, concrete forms, roofing materials, HVAC equipment, pumps, diffusers, screens, belt presses, and screw presses. The site of the proposed AWPF is currently vacant (see **Figure 2**). No demolition is anticipated to be required to construct the AWPF.

Figure 2: AWPF Site

Regional Water Recycling Plant No. 4 Advanced Water Purification Facility Site Layout



Google Street view of Regional Water Recycling Plant No. 4 Advanced Water Purification Facility Site

2.1.2 Pipelines and Turnouts

With rare exceptions, all proposed pipelines would be aligned through the public right-of-way (ROW) and properties owned or to-be acquired by IEUA. Typically, pavement removal would occur, followed by excavation of the pipeline trench, installation of the pipe, then backfilling and compaction, and finally ground surface restoration or pavement reinstallation. Trenchless technologies would be required at freeway, flood channel, and railroad crossings: jack and bore for lengths less than 500 feet; and horizontal directional drilling (HDD) for lengths exceeding 500 feet. HDD involves establishing entry and exit pits, using a drill rig to create an underground bore hole, and then stringing the pipeline through the hole. Jack and bore also employs entry and exit pits but uses an auger to remove material and push a casing forward, then the pipeline is inserted in the casing. Most of the pipe would range from 10-inch to 48-inch diameter. Depending on the pipe size, the trenches may vary in depth and width. Roughly half an acre of land would be actively excavated on a given day.

An estimated 30 miles or 158,400 LF of conveyance pipeline would be installed in support of the CBP. The rate of pipeline installation would depend on whether the pipeline installation is in undeveloped areas or developed roadways. Installation of 158,400 LF of pipeline was assumed to occur over a period of 3 years, with 53,000 LF being installed each year to coincide with the opening year (2028) of the AWPF. For the purposes of analysis, it is assumed that an underground utility installation team can install an average of 200-400 LF of pipeline per day and that three teams will be installing pipelines at any given time for a maximum total of 1,200 LF per day (400 LF/team/day x 3 teams = 1,200 LF per day). It is assumed that the proposed pipeline installation will occur for a maximum of 260 days in one calendar year.

In addition to conveyance pipeline, a maximum of six turnout structures would be provided to deliver water from the main canal to the water users via a pipeline or other means. The type of turnout structure and its design requirements would depend on location. Installation of the six turnouts would occur over a period of two years, with three turnouts being installed each year to coincide with the opening year (2028) of the AWPF. For the turnouts, roughly a quarter acre of land would be actively excavated on a given day.

The daily construction fleet required to install the average 200-400 LF/day of conveyance pipelines or for each turnout consists of a pavement cutter, grinder, backhoe, crane, two dump trucks, roller/vibrator, and traffic control signage and devices operating 6 hours per day; a water truck and excavator operating 4 hours per day; and a paving machine and compacter operating 2 hours per day. In addition, the contractor may occasionally use a portable generator and welder for equipment repairs or incidental uses. Installation of pipeline in unpaved locations would require the same equipment as in paved locations, without the paving equipment (cutter, grinder, paving machine). In general, trenches would have vertical side walls to minimize the amount of soil excavated. Soils excavated from the trenches, if of suitable quality, would be stockpiled alongside the trench or in staging areas for later reuse in backfilling the trench. If not reusable, the soil would be hauled off site for disposal. Engineered backfill material would be imported to stockpiles near the trenching. During the installation of the pipelines, there would be a surplus of native soil requiring off-site export. Pipeline and turnout installation would require an estimated 10 dump/delivery trucks (40 miles round trip distance) per day, and a crew of 14 members per team (40-mile round-trip commute). For the purposes of analysis, it is assumed that each phase of pipeline construction would be occurring simultaneously at some location in the basin (i.e., one segment would be in the repaving phase while another segment begins trenching).

2.1.3 Pump Stations

Pump stations are required to pump water from areas at a lower elevation within the Basin, to areas located at a higher elevation. A total of four pump stations are anticipated to be constructed as part of the CBP. At each site, no more than 0.5 acre would be actively graded on a given day for site preparation of each pump station. Grading activities would occur over a five-day period and this phase of construction would require up to six truck trips with an average round

trip distance of 20 miles to deliver construction materials and equipment (concrete, steel, pipe, etc.). Installation of the pump station would require the use of a crane, forklift, backhoe and front loader operating four hours per day. Five workers would each commute 40 miles round-trip to the work site.

Each pump station would be housed within a block building and would require a transformer to be installed to deliver electric power to the pumps. The proposed pump station building would include a pump room, electric control room, odor control facilities, chemical tanks, and storage room. Construction of the pump station would involve installation of piping and electrical equipment, excavation and structural foundation installation, pump house construction, pump and motor installation, and final site completion.

The proposed pump stations are anticipated to be located at sites that have permanent power available for construction, as such a generator is not anticipated to be required for welding required to construct the pump stations.

2.1.4 Injection, Extraction, and Monitoring Wells

The CBP would install up to 37 new wells, (16 injection wells [12 duty, 4 stand-by], 17 extraction wells, and 4 monitoring wells). Installation of the 37 new wells would occur over a period of three years, with 12 wells being installed each year to coincide with the opening year of the AWPF, 2028. Production well, injection well, and monitoring well development have essentially the same construction impacts.

The drilling and development of each well would require drilling to—in most cases—between 250 and 1,500 feet below ground surface (bgs). The proposed schedule for constructing each well would be as follows: drilling, construction, and testing of each well would require approximately six weeks to complete (about 45 days, of which 15 to 20 days would include 24-hour, 7-day a week drill activity). For planning purposes, a construction and testing schedule duration of 60 days per well is assumed to account for unforeseen circumstances (e.g., extreme weather, equipment break downs, etc.) that could affect the drilling and testing schedule. The well casings would be welded and well development and installation would require a two week use of a diesel generator.

Development of up to 12 new wells during a given year would require the delivery and set up of the drilling rig at each site. It is anticipated the wells would be drilled at different times and the drilling equipment transported to and from the sites on separate occasions. For the purposes of this evaluation, it is assumed that delivery of the drilling equipment 12 times in a year would result in 12 50-mile round-trips for the drill rigs. It is anticipated that a crew of five persons would be on a given well site at any one time to support drilling a well: three drillers, the hydrologist inspector, and a foreman. Daily trips to complete the well would average approximately 15 round trips per day, which at various points of construction would include: two round trips for drill rigs; between six and 12 round trips for cement trucks; five trips to deliver pipe; and 10 trips per day for employees.

The average area of disturbance of each well site is estimated to be 0.5 acre or less to allow for construction, periodic well rehabilitation, and the drilling of a new well should the original well fail and need to be replaced. For analysis purposes, it is assumed that each well would be drilled using the direct rotary or fluid reverse circulation rotary drilling methods. Access to the drilling site for the drilling rig and support vehicles would be from adjacent roadways. Typically, well drilling requires only minimal earth movement or grading.

2.1.5 Wellhead Treatment Facilities

Several existing wells would require wellhead treatment in order to become operational in support of the CBP. The CBP would construct up to three wellhead treatment facilities at existing member agency wells. Two are shown in **Figure 1**, and a third could be constructed in the vicinity of the AWPF. The area expected to be disturbed by the construction of the proposed treatment facilities would be less than three acres for each site. A regional groundwater treatment facility would range from about one acre to two acres in size per facility. Construction of water treatment

facilities would involve site demolition; site paving; site prep/grading; excavation and installation of yard pipes; installation of treatment facilities; site finishing (landscaping, misc. curb/cutter, etc.); and site drainage (above and below grade). Construction equipment would include the following: one bulldozer or motor grader, backhoes, loaders, dump trucks, crew trucks, concrete trucks, cranes, personal vehicles, compactor, delivery trucks, and a water truck. It is anticipated that the maximum number of construction personnel at a site on any given day would be 10 persons. The maximum number of construction material truck deliveries would be approximately 10 per day at 40 miles round trip per day. Each wellhead treatment facility would require about six months to construct, with construction of two treatment systems assumed to occur simultaneously. The operational year is anticipated to coincide with the opening year of the AWPF, 2028.

2.1.6 Storage Reservoir

One 5 million gallon (MG) storage tank is anticipated to be required in support of the CBP. Overall, reservoir construction is anticipated to require about three months from start to finish. During mass grading of the site, an assumed 5,000 cubic yards (CY) of material would be imported as engineered backfill. The amount of material that would need to be exported is unspecified, but conservatively assumed to be roughly the same quantity (5,000 CY). This material would be delivered by trucks to the site in the amount of about 300 trips, assuming 50 trips maximum per day to and from the site, with a roundtrip length of no more than 50 miles. Fine grading of the site will be completed after the reservoir and piping are installed. A maximum of five to 12 workers would be on the site during grading, which would take place for about 10 days. Following mass excavation, the tank foundation would be installed. The foundation would consist of concrete, steel, and aggregate. It is assumed that a maximum of five to 12 workers would be on the site during foundation construction for a maximum of about 25 days. The new 5 MG storage tank would be constructed in the following fashion: floor; walls and columns; roof; prestressing; and appurtenances. It is assumed that a maximum of 12 employees would be on the site during reservoir construction for a maximum of about 50 days total (grading and construction).

Table 3 summarizes the overall construction vehicle fleet that has been assumed to be necessary for the purposes of estimating construction-related air pollutant emissions.

Table 3: Estimated Construction Equipment Fleet by Phase

Construction Phase	Modeled Daily Equipment Fleet	Unit Amount	Hours per Day	Hp	Load Factor
Well Development (assume mobilization, drilling, and construction and testing occurs simultaneously at some location in area)	Rubber Tired Dozers	4	6	247	0.4
	Tractors/Loaders/Backhoes	12	6	97	0.37
	Bore/Drill Rigs	1	24	221	0.5025
	Cranes	4	6	231	0.2881
	Welders	4	4	46	0.45
Pipelines (assume pavement cutting, excavation, install, and paving occurs simultaneously at some location in area)	Excavators	3	4	158	0.38
	Graders	1	8	187	0.41
	Rubber Tired Dozers	6	6	247	0.4
	Tractors/Loaders/Backhoes	3	6	97	0.37
	Crushing/Proc. Equipment	6	6	85	0.78
	Cranes	3	6	231	0.2881
	Rollers	3	6	80	0.3752
	Sweepers/Scrubbers	3	4	64	0.4556
	Paving Equipment	3	2	132	0.3551
	Generator Sets	3	1	84	0.74
Storage Reservoir – Grading phase	Excavators	1	8	158	0.38
	Graders	1	8	187	0.41
	Rubber Tired Dozers	1	8	247	0.4
	Tractors/Loaders/Backhoes	3	8	97	0.37
Storage Reservoir – Construction phase	Cranes	1	7	231	0.29
	Forklifts	3	8	89	0.2

Construction Phase	Modeled Daily Equipment Fleet	Unit Amount	Hours per Day	Hp	Load Factor
	Generator Sets	1	8	84	0.74
	Tractors/Loaders/Backhoes	3	7	97	0.37
	Welders	1	8	46	0.45
Storage Reservoir – Site finishing phase	Cement and Mortar Mixers	2	6	9	0.56
	Pavers	1	8	130	0.42
	Paving Equipment	2	6	132	0.36
	Rollers	2	6	80	0.38
	Tractors/Loaders/Backhoes	1	8	97	0.37
Pump Stations - Grading	Graders	1	8	187	0.41
	Rubber Tired Dozers	1	8	247	0.4
	Tractors/Loaders/Backhoes	2	7	97	0.37
Pump Stations - Construction	Cranes	1	4	231	0.29
	Forklifts	1	4	89	0.2
	Tractors/Loaders/Backhoes	2	4	97	0.37
	Welders	1	4	46	0.45
Turnouts (assume excavation, install, and resurfacing occurs simultaneously at some location in area)	Excavators	3	4	158	0.38
	Graders	1	8	187	0.41
	Rubber Tired Dozers	6	6	247	0.4
	Tractors/Loaders/Backhoes	3	6	97	0.37
	Crushing/Proc. Equipment	6	6	85	0.78
	Cranes	3	6	231	0.2881
	Rollers	3	6	80	0.3752
	Sweepers/Scrubbers	3	4	64	0.4556
	Paving Equipment	3	2	132	0.3551
	Generator Sets	3	1	84	0.74
AWPF – Site preparation	Rubber Tired Dozers	3	8	247	0.4
	Tractors/Loaders/Backhoes	4	8	97	0.37
AWPF - Grading	Excavators	1	8	158	0.38
	Graders	1	8	187	0.41
	Rubber Tired Dozers	1	8	247	0.4
	Tractors/Loaders/Backhoes	3	8	97	0.37
AWPF – Construction	Cranes	1	7	231	0.29
	Forklifts	3	8	89	0.2
	Generator Sets	1	8	84	0.74
	Tractors/Loaders/Backhoes	3	7	97	0.37
	Welders	1	8	46	0.45
AWPF - Paving	Cement and Mortar Mixers	2	6	9	0.56
	Pavers	1	8	130	0.42
	Paving Equipment	2	6	132	0.36
	Rollers	2	6	80	0.38
	Tractors/Loaders/Backhoes	1	8	97	0.37
Wellhead Treatment – Demolition	Concrete/Industrial Saws	2	6	81	0.73
	Rubber Tired Dozers	2	6	247	0.4
Wellhead Treatment – Grading	Graders	2	6	187	0.41
	Tractors/Loaders/Backhoes	4	6	97	0.37
Wellhead Treatment – Construction	Cranes	2	4	231	0.29
	Forklifts	2	6	89	0.2
	Generator Sets	2	4	84	0.74
	Tractors/Loaders/Backhoes	4	6	97	0.37
	Welders	2	4	46	0.45
Wellhead Treatment – Paving	Pavers	2	6	130	0.42
	Paving Equipment	2	6	132	0.36
	Rollers	2	6	80	0.38

2.1.7 Construction Schedule

Construction is expected to begin in 2025 and extend to the opening of the AWPF in 2028. Construction would be limited to daytime, with the exception of well drilling for injection and extraction wells, which would last up to 20 days per well at 24 hours per day to prevent bore hole collapse. Trenchless drilling methods (HDD and jack-and-bore) would also require round-the-clock construction to prevent borehole collapse. Construction of the wells and pipelines would occur over three years from 2025-2027; construction of the turnouts would occur over two years from 2026-2027; construction of the wellhead treatment, AWPF and the pump stations would occur over one year, 2027; and the storage reservoir would be constructed at the end of 2027.

2.1.8 Construction Best Management Practices

The Proposed Project would comply with applicable State regulations including:

- All portable diesel-powered construction equipment shall be registered with the state's portable equipment registration program or shall obtain a South Coast Air Quality Management District (SCAQMD) permit.
- Fleet owners of mobile construction equipment are subject to the California Air Resource Board (CARB) Regulation for In-Use Off-Road Diesel Vehicles (Title 13, California Code of Regulations (CCR), §2449), the purpose of which is to reduce oxides of nitrogen (NO_x), diesel particulate matter (DPM), and other criteria pollutant emissions from in-use off-road diesel-fueled vehicles. Off-road heavy-duty trucks shall comply with the State Off-Road Regulation.
- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-Use (On-Road) Heavy-Duty Diesel-Fueled Vehicles (Title 13, CCR, §2025), the purpose of which is to reduce DPM, NO_x and other criteria pollutants from in-use (on-road) diesel-fueled vehicles. On-road heavy-duty trucks shall comply with the State On-Road Regulation.
- All commercial off-road and on-road diesel vehicles are subject, respectively, to Title 13, CCR, §2449(d)(3) and §2485, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to five minutes; electric auxiliary power units should be used whenever possible.

2.2 Operation

Operations and maintenance (O&M) for each of the Proposed Project's key facilities is briefly described below.

Wells: The injection wells would recharge up to 15,000 AFY per year, while the new extraction wells would pump up to 50,000 AFY of water from the Basin in call years, or 10,000 AFY in non-call years (only 7.5 call years are anticipated over a 25-year period). After the 25-year period in which the CBP would be active, IEUA member agencies could utilize the water purified at the AWPF in the amount of 15,000 AFY. The 16 injection wells would have a maximum operational capacity of 830 gpm each. The 17 extraction wells would have a maximum operational capacity of 2,000 gpm each. All energy demands would be met by electricity supplied by Southern California Edison. The four monitoring wells would be visited by a field technician on a monthly to quarterly frequency. There would be negligible energy consumption in obtaining groundwater levels from the monitoring wells. Ongoing operation and maintenance of the wells may involve periodic backwash and inspection.

AWPF: The AWPF would include various processes and facilities, including an MF System, RO System, Equalization Tank, UV-AOP System, Chemical Facilities, Post Treatment, and CIP Systems. It is assumed that the AWPF would involve daily inspections and maintenance of treatment processes, daily backflush and maintenance cleans, more rigorous weekly to monthly cleans, and weekly deliveries of chemicals and supplies to the AWPF. The Reverse Osmosis (RO) system would require chemical cleaning and inspection monthly and membranes would be replaced

every five years. All energy demands would be met by electricity supplied by Southern California Edison or from onsite sources at the RP-4; the Proposed Project would not consume natural gas.

Other Well Treatment Facilities: The CBP may install up to three wellhead treatment facilities at locations that have yet to be selected but would be sited at existing member agency offline wells. These wellhead treatment systems would be capable of treating up to 3,000 AFY per wellhead treatment system. Each of the three wellhead treatment systems would be connected to three existing member agency wells (total of nine existing extraction wells used for the CBP). The Wellhead treatment facilities would require routine inspection and maintenance of the treatment processes. Wellhead treatment would also include the following brine conveyance and disposal:

- Disposal Capacity: 4,900 gpd per wellhead treatment system
- Pipeline Length: up to 6,800 LF (8-inch)
- Disposal System: Assumed utilization of IEBL

Brine Disposal: The additional brine stream flow from the AWPF at RP-4 would be 1,027,300 gpd. The brine stream flow from the AWPF would ultimately need to be treated by the Los Angeles County Sanitation District (LACSD) through the Joint Outfall System (JOS) or by the Orange County Sanitation District (OCSD).

Pipelines and Turnouts: Once a pipeline or turnout is installed, operations would not require any operations and maintenance visits unless unforeseen circumstances arise that would require maintenance or repair of the pipelines. In the event of routine maintenance, one vehicle trip per maintenance event would be required.

Pump Stations: A total of four pump stations will be installed. It is assumed that the three TAKE Pump stations would range between 650 HP to 9,300 HP, with the booster pumps averaging 4,200 HP each. The PUT pump station would operate at 1,500 HP. All energy demands would be met by electricity supplied by Southern California Edison. The pump stations would require routine inspection and maintenance.

Water Storage Tank: Once the reservoirs are installed, operation of the reservoir would not require any shifts or employees as it would be monitored and controlled remotely. Scheduled maintenance visits would occur in the future with one trip per maintenance event. Reservoirs typically do not directly consume energy as water or recycled water is pumped into reservoirs directly from wells or through booster pump stations.

Renewable Energy: In-conduit hydropower facilities may be considered in locations of the potable water distribution system where the system pressure needs to be reduced and energy can be produced. Current renewable on-site generation at RP-4, which shares the same SCE meter with the Inland Empire Regional Composting Facility (IERCF), is about 20%. In addition to the 1 MW wind turbine and 1.5 MW battery at RP-4, additionally, there is a potential for use of a 2.5 MW solar at the IERCF. As the Proposed Project has not undergone site specific design, at this time, alternative energy options would be explored when design has been further specified.

According to the IEUA Facilities Management Plan, over the course of the next 15 years, IEUA intends to procure 100 percent of its electricity needs from carbon neutral sources, so in that period of time, IEUA will slowly begin to use less carbon sourced energy for greater operational demands. Additionally, the Proposed Project would create a source of local water supply within the Chino Basin, which would offset the energy required to transfer water from MWD from the Sacramento-San Joaquin Delta to IEUA's service area.

3. ENVIRONMENTAL SETTING

Pollutants that are known to increase the greenhouse effect in the earth's atmosphere, thereby adding to global climate change impacts, are referred to as greenhouse gases (GHG). A number of pollutants have been identified as GHGs. The State of California definition of GHGs in the Health & Safety Code, Section 38505(g) includes carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Some GHGs, such as CO_2, occur naturally and are emitted to the atmosphere through natural processes. Other GHGs (e.g., fluorinated gases) are created and emitted solely through human activities. The most common GHGs that result from human activity are CO_2 e followed by (CH_4) and (N_2O).

- Carbon Dioxide (CO_2): Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and as a result of other chemical reactions (e.g., manufacture of cement). CO_2 is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
- Methane (CH_4): CH_4 is emitted during the production and transport of coal, natural gas, and oil. CH_4emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
- Nitrous Oxides (N_2O): Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.
- Fluorinated Gases: Hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF_6) are synthetic, powerful GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances (i.e., chlorofluorocarbons, [CFCs], hydrochlorofluorocarbons [HCFCs], and halons). Fluorinated gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high global warming potential gases (high GWP gases).
    - HFCs are manmade chemicals that have historically replaced chlorofluorocarbons used in refrigeration and semi-conductor manufacturing.
    - PFCs are manmade chemicals that are by-products of aluminum smelting and uranium enrichment.
    - SF_6 is a manmade chemical that is largely used in heavy industry to insulate high voltage equipment and to assist in the manufacturing of cable cooling systems.

The Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of CO_2. The larger the GWP, the more that a given gas warms the Earth compared to CO_2 over that time period. The time period usually used for GWPs is 100 years. GWPs provide a common unit of measure, which allows analysts to add up emissions estimates of different gases (e.g., to compile a national GHG inventory), and allows policymakers to compare emissions reduction opportunities across sectors and gases.

- CO_2, by definition, has a GWP of 1 regardless of the time period used, because it is the gas being used as the reference. CO_2 remains in the climate system for a very long time: CO_2 emissions cause increases in atmospheric concentrations of CO_2 that will last thousands of years.
- CH_4 is estimated to have a GWP of 28–36 over 100 years. CH_4 emitted today lasts about a decade on average, which is much less time than CO_2. But CH_4 also absorbs much more energy than CO_2. The net effect of the shorter lifetime and higher energy absorption is reflected in the GWP. The CH_4 GWP also accounts for some indirect effects, such as the fact that CH_4 is a precursor to ozone, and ozone is itself a GHG.
- N_2O has a GWP 265–298 times that of CO_2 for a 100-year timescale. N_2O emitted today remains in the

atmosphere for more than 100 years, on average.

- CFCs, HFCs, HCFCs, PFCs, and SF6 are sometimes called high-GWP gases because, for a given amount of mass, they trap substantially more heat than CO_2. (The GWPs for these gases can be in the thousands or tens of thousands).

3.1 Regulatory Setting

This section discusses applicable federal, state, regional, and local rules and regulations, including emission standards and ambient air quality standards.

3.1.1 Federal Regulations

U.S. Supreme Court and Endangerment Ruling. The U.S. Supreme Court ruled in 2007 that GHG emissions are air pollutants, covered under the Clean Air Act, in Massachusetts v. The Environmental Protection Agency. The Court found that the United States Environmental Protection Agency (EPA) has a mandatory duty to enact rules regulating mobile GHG emissions pursuant to the federal Clean Air Act. The Court held that GHGs fit the definition of an air pollutant causing and contributing to air pollution, which reasonably may be anticipated to endanger public health or welfare. In 2009, the EPA Administrator determined that existing and projected concentrations of GHGs threaten public health and welfare of present-day and future generations, and that combined emissions from motor vehicles contribute to GHG pollution. EPA's endangerment finding covers emissions of six GHGs: CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6.

Corporate Average Fuel Economy (CAFE) Standards. The Corporate Average Fuel Economy standards were first enacted by Congress in 1975, requiring vehicle manufacturers to comply with the gas mileage or fuel economy standards. These standards are set and regulated by the National Highway Traffic Safety Administration, with testing and data support from EPA. The issued rules include fuel economy standards for light-, medium- and heavy-duty vehicles. More fuel-efficient vehicles result in lower emissions of GHG.

For light-duty vehicles, National Highway Traffic Safety Administration (NHTSA) and EPA issued a joint final rulemaking on October 15, 2012, to establish coordinated standards to improve fuel economy and reduce GHG emissions for vehicle model years 2017 through 2025 (77 FR 62624). EPA established standards that are projected to require, on an average industry fleet wide basis, 54.5 miles per gallon; the NHTSA standards are projected to require, on an average industry fleet wide basis, a range from 40.3-41.0 miles per gallon. For medium- and heavy-duty vehicles, EPA and NHTSA issued a final rule on December 27, 2016 on GHG standards and fuel consumption standards for engines and vehicles model years 2018 through 2029 (81 FR 73478).

On April 2, 2018, the EPA issued the Mid-term Evaluation Final Determination, finding that the GHG standards for model years 2022-2025 should be revised, and that EPA and NHTSA should further consider appropriate standards for model year 2022-2025 light-duty vehicles. In September 2019, NHTSA and the EPA released the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part 1, which revoked California's waiver under the Clean Air Act allowing it to establish stricter emissions standards. In March 2020, EPA and NHTSA released SAFE Part 2, which set new fuel economy and emissions standards for model years 2021-2026 (increasing the stringency of emissions standards by 1.5% each year for model years 2021-2026, as compared with the standards issued in 2012, which would have required about 5% annual increases). In January 2021, the Biden administration directed EPA and NHTSA to review SAFE Part 1 and SAFE Part 2. NHTSA's Corporate Average Fuel Economy (CAFE) Preemption Rule and EPA's reconsideration notice, issued in April 2021, dealt with SAFE Part 1, rescinding NHTSA's preemption determination and reconsidering EPA's waiver revocation. The waiver withdrawal reconsideration is still pending. New CAFE standards were proposed in August 2021, which would set standards for passenger cars and light trucks for model years 2024-2026.

Mandatory Reporting of GHGs. In 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule which requires mandatory reporting of GHG emissions from large sources in the U.S. Since January 1, 2010,

manufacturers of vehicles and engines, suppliers of fossil fuels or industrial GHGs, and facilities that emit at least 25,000 metric tons of GHGs per year have been required to submit annual reports to EPA.

Clean Power Plan and Affordable Clean Energy. In 2012, the EPA proposed performance standards for CO_2 emissions for new electricity generation from fossil fuels. New sources greater than 25 megawatts were required to meet the standard of 1,000 pounds of CO_2 per megawatt-hour. However, in 2016 a stay of this rule was ordered due to pending litigation. The 2015 Clean Power Plan, which also aimed to reduce power sector emissions, never took effect due to legal action, and was officially repealed in June 2019 when EPA issued the Affordable Clean Energy rule, which established new emission guidelines for power sector emissions. In January 2021, the D.C. Circuit Court vacated the Affordable Clean Energy Rule and remanded to EPA for reconsideration.

New Source Review. New Source Review is a permitting process created under the Clean Air Act in 1977 requiring pre-construction review for environmental controls for new facilities or any modifications to existing facilities that would create a significant increase of a regulated pollutant. In 2010, EPA issued the GHG Tailoring Rule, which provided an approach to permitting GHG emissions under Prevention of Significant Deterioration (PSD) and Title V Operating Permit. A subsequent Supreme Court decision clarified that a stationary source is not required to obtain a PSD or Title V permit solely because the source emits or has the potential to emit GHGs above the applicable major source thresholds. PSD permits may still require limitations on GHG emissions based on the application of Best Available Control Technology.

Paris Climate Accords. The Paris Climate Accords (also known as the Paris Agreement or Paris Accords) is an international treaty on climate change adopted in 2015 covering climate change adaptation, mitigation, and finance. As of April 2021, the U.S. is targeting a national reduction in GHG emissions of 50 to 52 percent below 2005 levels by 2030.

3.1.2 State Regulations

Executive Order (EO) S-3-05. The Governor issued Executive Order (EO) S-3-05 in 2005 which set GHG emission reduction targets: reduce GHG emissions to 2000 levels by 2010; reduce GHG emissions to 1990 levels by 2020; and reduce GHG emissions to 80% below 1990 levels by 2050.

Assembly Bill (AB) 32. In 2006, California passed the California Global Warming Solutions Act of 2006. It required California Air Resources Board (CARB) to design and implement emission limits, regulations, and other measures to reduce statewide GHG emissions to 1990 levels by 2020 (representing a 25% reduction in emissions). AB 32 establishes an enforceable statewide cap on global warming emissions and reduction measures phased in by 2012, and through discrete early action measures that could be made effective by 2010. AB 32 established a timeframe for CARB to adopt emissions limits, rules, and regulations, but did not provide thresholds or methodologies for analyzing a project's impacts on global climate change.

CARB Scoping Plan. CARB adopted the Scoping Plan in December 2008 and a Scoping Plan Update in December 2017. The State intends to achieve GHG reductions in California required by AB 32 and Senate Bill 32 (SB 32) (described below). The Scoping Plan contains the strategies California will implement to achieve reduction of 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050. In the Scoping Plan, "CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from vehicle miles travelled (VMT), and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits locally."

GHG reductions targeted in the Scoping Plan would be shared across California's energy, transportation, industrial, water, waste management, and agricultural sectors. The water sector's fair share contribution to the Statewide GHG reduction goals may be more or less than the overall Statewide target because they would be combined with the measures taken by all of the other sectors. For the purposes of this analysis, the GHG reduction goal for the water

sector has been interpreted from the 2017 Climate Change Scoping Plan. One of the "potential actions" included in the 2017 Climate Change Scoping Plan (page 95, CARB 2017), reads: "Where technically feasible and cost-effective, local water and wastewater utilities should adopt a long-term goal to reduce GHGs by 80 percent below 1990 levels by 2050 (consistent with DWR's Climate Action Plan), and thereafter move toward low carbon or net-zero carbon water management systems." Another "potential action" focuses on creating new sources of renewable energy: "Local water and wastewater utilities should develop distributed renewable energy where feasible."

The 2017 Climate Change Scoping Plan recognizes that GHG emissions from the water sector result primarily from the fossil fuel-based energy consumed for water end uses (e.g., heating, cooling, pressurizing, and industrial processes), and the fossil fuel-based energy used to "produce" water (e.g., pump, convey, treat). Therefore, emissions reductions strategies in the 2017 Climate Change Scoping Plan are primarily associated with reducing the energy intensity of the water sector. CARB notes that, "in the future, the ability to meet most new demand for water will come from sources such as increased conservation and water use efficiency, improved coordination of management of surface and groundwater, recycled water, new technologies in drinking water treatment, groundwater remediation, and brackish and seawater desalination" (CARB 2017). The 2017 Climate Change Scoping Plan further notes that replacement of potable water with recycled water does not automatically translate into GHG reductions. Recycled water has the potential to reduce GHGs if it replaces (rather than serves as an alternative to) an existing water supply with higher GHG emissions. Nevertheless, an overarching goal of the 2017 Climate Change Scoping Plan is to "make conservation a California way of life by using and reusing water more efficiently through greater water conservation, drought tolerant landscaping, stormwater capture, water recycling, and reuse to help meet future water demands and adapt to climate change."

As of 2021, CARB is preparing a 2022 Scoping Plan Update. Beginning in mid-2021, CARB hosted a series of workshops to support the Scoping Plan Update. Key objectives for the 2022 Scoping Plan Update include assessing progress toward achieving the 2030 target, laying out a path for achieving carbon neutrality no later than 2045. This will be the longest planning horizon of any Scoping Plan to date.

California Renewables Portfolio Standard and Senate Bill 100. In September 2002, SB 1078 was enacted, establishing the Renewables Portfolio Standard (RPS) program. The RPS requires retail sellers of electricity, including electrical corporations, community choice aggregators, and electric service providers, to purchase a specified minimum percentage of electricity generated by eligible renewable energy resources such as wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas. The targets for the minimum percentage of renewable energy have increased with subsequent pieces of legislation, with the most recent being set by SB 100 in 2018. SB 100 revised previous renewable portfolio standards for electricity retail sales. SB 100 requires that 50 percent of power must come from renewable resources by December 31, 2026 and that 60 percent of power must come from renewable sources by December 31, 2030. The legislation also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045.

The Proposed Project would be served by Southern California Edison (SCE). SCE has historically met the RPS targets. The California Public Utilities Commission (CPUC) enforces compliance of all utilities in the state with the RPS and tracks progress toward meeting targets for renewable energy production to ensure that 100 percent of the state's electricity comes from renewable and carbon-free sources by 2045. The CPUC imposes fines for non-compliance with program requirements. In its 2020 California Renewables Portfolio Standard Annual Report, the CPUC reported that the three large utilities in the state (Pacific Gas & Electric, SCE and San Diego Gas & Electric) "are on track to meet their 60 percent 2030 RPS procurement mandate." The 2019 target for renewable energy was 31 percent and in 2019, SCE had achieved 38 percent renewable energy; SCE has thus already exceeded the 33 percent requirement for 2020 (CPUC 2020). Given the progress to date, the CPUC states that all three large utilities "are currently forecasted to continue to surpass RPS requirements and have excess procurement for the next seven years" (CPUC 2020). SCE is

meeting its renewable energy requirements using a mix of biopower, geothermal power, small hydroelectric power, solar photovoltaic power, solar thermal power, and wind power (CPUC 2020).

EO B-30-15 / Senate Bill 32. In April 2015, the Governor issued EO B-30-15 which sets the State's GHG emissions target for 2030 at 40% below 1990 levels. Similarly, SB 32 (2016) requires that CARB, in its next update to the AB 32 Scoping Plan, "ensure that statewide GHG emissions are reduced to at least 40% below the statewide GHG emissions limit no later than December 31, 2030."

EO B-55-18. In September 2018, the Governor issued EO B-55-18, which set a statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter.

EO N-79-20. In September 2018, the Governor issued EO N-79-20, requiring that all new passenger cars and trucks sold in the state be zero-emission by 2035. A further goal is that all medium- and heavy-duty vehicles in California be zero-emission by 2045 for all operations where feasible, and that all off-road vehicles and equipment be zero-emission by 2035 where feasible.

Assembly Bill 1493. AB 1493 (2002) required CARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards, referred to as "Pavley" standards, apply to automobiles and light trucks beginning with the 2009 model year. Litigation was filed by automakers, challenging these regulations. EPA initially denied California's related request for a waiver to allow California to regulate vehicle emissions beyond EPA requirements, but a waiver subsequently was granted. Pavley I regulates model years from 2009 to 2016 and Pavley II, which is now referred to as "LEV (Low Emission Vehicle) III GHG," regulates model years from 2017 to 2025. The Advanced Clean Cars I program coordinates the goals of the LEV, Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs. The Advanced Clean Cars Program is projected to lower GHG emissions from new automobiles by 40 percent compared to 2012 model years in 2025 (CARB 2019). In 2021, CARB began a series of public workshops to solicit input on the development of the Advanced Clean Cars II regulations. The Advanced Clean Cars II regulations will seek to reduce criteria pollutant and GHG emissions from new light- and medium-duty vehicles beyond the 2025 model year and increase the number of ZEVs for sale.

Cap and Trade. California's Cap-and-Trade Program sets a statewide limit on sources responsible for 85 percent of California's GHG emissions and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The program is designed to provide covered entities the flexibility to seek out and implement the lowest cost options to reduce emissions. The program began in 2013 for electricity generators and large industrial facilities emitting 25,000 metric tons of CO_2 equivalent or more annually, and began in 2015 for distributors of transportation, natural gas, and other fuels. CO2 from the combustion of digester and landfill gas does not count towards the cap; therefore, there are no municipal wastewater treatment plants in California that have compliance obligations under the cap-and-trade program. In 2014, California's program linked with Quebec's cap-and-trade system, and the program is designed to link with similar trading programs in other states and regions. The cap was set in 2013 at about 2 percent below the emissions level forecast for 2012 at the time, declined about 2 percent in 2014, 3 percent annually from 2015-2020, and 4 percent for 2021 and beyond.

Senate Bill 350. The Clean Energy and Pollution Reduction Act (Senate Bill 350) established clean energy, clean air, and GHG reduction goals, including reducing GHG to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050. SB 350 also requires the state to double statewide energy efficiency savings in electricity and natural gas end uses by 2030. To help meet these goals and reduce GHG emissions, large utilities will be required to develop and submit integrated resource plans (IRPs). These plans detail how utilities will meet their customers' resource needs, reduce GHG emissions, and ramp up the use of clean energy resources.

Title 24. California's energy code is designed to reduce wasteful and unnecessary energy consumption in newly constructed and existing buildings. The California Energy Commission updates the Building Energy Efficiency Standards (Title 24, Parts 6 and 11) every three years. The 2019 Building Energy Efficiency Standards took effect on January 1, 2020. The updates focused on four key areas: smart residential photovoltaic systems, updated thermal

envelope standards (preventing heat transfer from the interior to exterior and vice versa), residential and nonresidential ventilation requirements, and nonresidential lighting requirements. The 2019 standards also establish requirements for newly constructed healthcare facilities.

Model Water Efficient Landscape Ordinance. Water use and energy use are highly interconnected, meaning that water use efficiency often results in energy savings and associated avoided GHG emissions. New development and retrofitted landscape water efficiency standards are governed by the Model Water Efficient Landscape Ordinance (MWELO). All agencies must adopt, implement, and enforce the MWELO or a more stringent ordinance. Projects that include landscape areas of 500 square feet or more are subject to the MWELO. The MWELO sets requirements related to irrigation, grading, recycled water, stormwater, and public education.

3.1.3 Regional Regulations

IEUA and the Proposed Project lie within the jurisdiction of the SCAQMD. On December 5, 2008, the SCAQMD Board approved interim CEQA GHG significance thresholds for stationary sources, rules, and plans using a tiered approach for determining significance (SCAQMD 2008). No additional guidance has been issued since the release of this interim guidance in 2008. Although the SCAQMD Board has not approved the thresholds, they can serve as useful guidance for lead agencies as they set their own significance thresholds. The thresholds are structured in tiers, summarized below:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA. If the project qualifies for an exemption, no further action is required. If the project does not qualify for an exemption, it would move to Tier 2.

- Tier 2 consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The GHG reduction plan must meet minimum requirements further detailed in the interim guidance; the requirements include compliance with AB 32 GHG reduction goals, analysis under CEQA, and GHG inventory tracking and monitoring provisions, and others. If the project is consistent with the qualifying local GHG reduction plan, it is not significant for GHG emissions. If the project is not consistent with a local GHG reduction plan, there is no approved plan, or the GHG reduction plan does not include all of the required components, the project would move to Tier 3.

- Tier 3 establishes screening significance thresholds and is the primary tier the SCAQMD board uses for determining significance for projects where it is the lead agency. SCAQMD has set a screening significance threshold of 10,000 MTCO2e/year for determining whether a stationary source project would have a less than significant cumulative GHG impact (SCAQMD 2008b). The threshold for new residential or commercial projects is 3,000 MTCO2e/year. Because IEUA is the lead agency for the Proposed Project, it would not be required to use SCAQMD's significance thresholds.

- Tier 4 provides three compliance options for the lead agency based on performance standards. These include: reducing Business-As-Usual (BAU) admissions by a certain percentage (the percentage is currently undefined); early compliance with AB 32 through early implementation of CARB's Scoping Plan Measures; and establishing sector-based performance standards. If performance standards on the compliance options in Tier 4 cannot be achieved, GHG emissions would be considered significant.

- Tier 5 includes off-site mitigation to reduce GHG emission impacts less than the proposed screening level.

If the project includes stationary sources of emissions (such as emergency backup generators), SCAQMD permits may be required for construction and operation. Permitted equipment would be subject to applicable SCAQMD rules and regulations.

SCAQMD Regulation XXVII addresses climate change with the following rules:

- Rule 2700 provides definitions of key terms and background information on global warming potential of various gases.
- Rule 2701 establishes the SoCal Climate Solutions Exchange, a voluntary program to encourage, quantify, and certify voluntary, high quality certified GHG reductions within SCAQMD's jurisdiction.
- Rule 2702 establishes a GHG Reduction Program, under which SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

Metropolitan Water District Climate Action Plan: MWD is currently developing a Climate Action Plan which is expected to be adopted in spring of 2022. The Climate Action Plan will establish a GHG reduction target; however, no draft targets have been released to date. To date, MWD has invested in renewable energy resources, including buying and generating hydroelectric power to help meet much of its electricity needs. MWD has built 15 in-stream hydroelectric plants throughout its distribution system with a total capacity of about 130 megawatts. MWD has also installed 5.5 megawatts of photovoltaic solar power at its facilities and plans to add battery energy storage to store green energy when power rates are low and discharge that energy when rates are higher (MWD 2021).

California Department of Water Resources Climate Action Plan: The Climate Action Plan is DWR's guide to addressing climate change in the programs, projects, and activities over which it has authority. The Climate Action Plan is divided into three phases to address mitigation, adaptation, and consistency in the analysis of climate change. Phase I is the GHG Emissions Reduction Plan, which lays out DWR's GHG emissions reduction goals for the near term (present to 2030) and long-term (2045). Phase II is the Climate Change Analysis Guidance, which develops a framework and guidance for consistent incorporation and alignment of analysis for climate change impacts in DWR's project and program planning activities. Phase III, Climate Change Vulnerability Assessment, describes, evaluates, and quantifies the vulnerabilities of DWR's assets in business to potential climate change impacts. Phase III also includes the Adaptation Plan to help prioritize resiliency efforts. DWR's GHG Emission reduction targets are consistent with State targets. The mid-term goal is to reduce GHG emissions to at least 60 percent below the 1990 level by 2030, and the long-term goal is to supply 100 percent of electricity load with zero-carbon resources and achieve carbon neutrality by 2045.

DWR's Phase I GHG Emissions Reduction Plan sets construction emissions thresholds to distinguish between typical construction projects and "extraordinary construction projects." Typical construction projects can rely on the Climate Action Plan for streamlined CEQA review. Extraordinary construction projects are not eligible for streamlined review if the project emits more than 25,000 metric tons of CO_2 equivalent in total during the construction phase of the project, or if the project emits more than 12,500 MTCO2e in any single year of construction. These thresholds represent a level of GHG emissions that by themselves could potentially adversely affect DWR's ability to achieve its GHG emissions reduction goals. DWR notes that these construction emissions thresholds are not established as thresholds of significance for CEQA purposes and should not be considered to constitute a determination by DWR that these thresholds are generally applicable as thresholds of significance for CEQA purposes. To demonstrate consistency with the Climate Action Plan, projects must complete a series of steps, including quantifying GHG emissions from the d project using DWR internal guidance, incorporating all project level GHG emissions reduction measures listed in Chapter VI of the Climate Action Plan (or explaining why measures that have not been incorporated do not apply to the project), determining that the project does not conflict with DWR's ability to implement any of the specific project GHG emissions reduction measures listed in Chapter VI, and obtaining additional review if the project would increase energy demands of the State Water Project system by 15 gigawatts per year or more. Required project level GHG emissions reduction measures are focused on implementation of BMPs and compliance with existing regulations. The reduction measures aim to reduce GHG emissions from construction projects by minimizing fuel use by construction

equipment, reducing fuel consumption for transportation of construction materials, reducing the amount of landfill material, and reducing emissions from the production of cement.

3.1.4 Local Regulations

IEUA has voluntarily reported and verified its GHG emissions since 2013, and adopted a *Climate Change Action Plan* in 2019 (CCAP). IEUA aims to balance regional sustainability efforts with environmentally conscious energy management strategies to identify projects and objectives that holistically address climate change efforts. The CCAP's GHG reduction goals are listed below:

- Reduce GHGs to AB 32 Levels: IEUA will follow AB 32 standards using the oldest emission baseline data available to reduce GHG levels to 2007 levels by 2020, 40 percent below 2007 levels by 2030, and 80 percent below 2007 levels by 2050.
- Strive toward Carbon Neutrality: IEUA's current renewable portfolio can meet approximately 50 percent of agency-wide power needs. Increasing this capacity will reduce IEUA's impact on climate change and enhance environmental sustainability.
- Report GHG emissions: Continue to report GHG emissions to the Climate Registry. Rather than focusing on lowering IEUA's direct GHG emissions, potential projects will be evaluated on their potential to reduce global GHG emissions.
- Increase energy efficiency: Optimizing facility processes and retrofitting equipment can result in less power demand on the electrical grid.
- Reduce methane emissions: Pursue projects that beneficially use the methane generated in the digestion process as a renewable source of heat and/or power generation.

The CCAP also establishes goals and objectives to guide development of future projects. IEUA has identified key areas that should be addressed to create a resilient water and wastewater management system that also contributes to GHG emission reductions. These goals and objectives are listed below:

- Goal: Maximize recycled water production and usage.
    - Objective: Expand infrastructure at IEUA sites, within the region, or surrounding areas to enhance capabilities for end user application, storage, or groundwater replenishment of recycled water.
    - Objective: Upgrade and/or modernize facilities to ensure effective water treatment and continued compliance with all regulatory requirements.
- Goal: Maintain health of the groundwater aquifer.
    - Objective: Improve stormwater capture through improvements to the groundwater replenishment system infrastructure.
    - Objective: Enhance groundwater replenishment capabilities within the Chino Basin through infrastructure upgrades.
    - Objective: Treat groundwater effectively to remove harmful contaminants and ensure a healthy aquifer.
    - Objective: Protect the groundwater quality by properly maintaining and upgrading infrastructure to prevent system failures that may contaminate the groundwater.

- Objective: Enhance storage capabilities of storm, recycled, or imported water through expansion of existing infrastructure or collaboration with surrounding water systems.

- Goal: Maximize system efficiencies.
  - Objective: Improve energy efficiencies at IEUA facilities.
  - Objective: Develop water use efficiency and/or conservation programs within the region.
  - Objective: Strive for carbon neutrality through implementation of renewable power generation and beneficial use of resources
- Goal: Measure performance.
  - Objective: Report GHG emissions annually through The Climate Registry.
  - Objective: Track key performance indicators for recycled, storm, and imported water usage within IEUA's management system.

The CCAP does not include thresholds of significance for GHG emissions from IEUA's projects, nor does the CCAP establish mechanisms for the review of GHG emissions of specific projects.

4. METHODOLOGY

GHG emissions occur from construction-source and operational-source emissions, and through direct and indirect emissions. For construction-source emissions, pollutants result from onsite (i.e., off-road) sources, and off-site (i.e., mobile) sources. GHG emissions from construction of the Proposed Project were estimated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0, consistent with guidance from SCAQMD (SCAQMD 2021). In July 2021, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of CalEEMod Version 2020.4.0. The model has been used to calculate construction-source GHGs and convert them to $MTCO_2e$. The latest version of CalEEMod, which incorporates the latest vehicle emissions standards, construction fleet mix standards, and other applicable regulations has been used to estimate construction air quality emissions. Output from the model is provided in Appendix A of this report.

Model inputs were developed based on information in the Project Description chapter of the PEIR, which are summarized in detail in Section 2 Project Description of this document, and default values from the CalEEMod computer program. As explained in Section 2.1.7, it was assumed that construction of the Proposed Project would commence in 2025 and proceed through the start of operations of the AWPF in 2028. It was assumed that the Proposed Project would comply with applicable regulations, such as vehicle idling restrictions and vehicle emission standards.

5. SIGNIFICANCE THRESHOLDS

The California Supreme Court has stated that "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself," and that "[t]he challenge for CEQA purposes is [therefore] to determine whether the impact of the project's emissions of greenhouse gases is cumulatively considerable[.]" (Newhall Ranch, supra, 62 Cal.4th at p. 219.). This analysis relies on Appendix G of the State CEQA Guidelines, which presents the following two questions related to determining the significance of GHG emissions, but has modified them to make the questions more specific. Based on these thresholds, the Project would result in a significant impact related to greenhouse gas if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment (by failure to achieve carbon neutral electricity sources by no later than 2045 and by not meeting the project's fair share of GHG reductions required on a statewide basis by 2030); and/or

- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs (i.e., IEUA's CCAP and CARB's 2017 Scoping Plan).

6. PROJECT IMPACTS

6.1 Greenhouse Gas Emissions

6.1.1 Construction

The Proposed Project would emit GHGs during construction, which is assumed to last from 2025 through the beginning of operation of the AWPF in 2028. Construction-related GHG emissions would be associated with operation of off-road construction equipment, worker and vendor vehicle trips, and truck hauling trips. Estimated annual GHG emissions are summarized in **Table 4**.

Table 4: Proposed Project GHG Emissions from Construction ($MTCO_2e$/year)

Construction Year	$MTCO_2e$/year
2025	3,842
2026	5,670
2027	7,394
Total	**16,906**
Average Annual	**5,635**

Construction is expected to be finished by 2028, or before 2030, which is when the State has set a mid-term target to achieve a reduction of 40 percent below 1990 levels. IEUA has not developed numerical screening levels to determine individual projects' consistency with the mid-term targets. DWR has set a mid-term target to achieve a reduction of 60 percent below 1990 levels by 2030 in its Climate Action Plan. To evaluate construction projects' GHG emissions, DWR has identified 25,000 $MTCO_2e$ in total during the construction phase of the project, or 12,500 $MTCO_2e$ in any single year of construction as a level that could impede DWR's progress towards achieving its goal. Therefore, based on the results shown in **Table 4**, the Proposed Project's total construction phase GHG emissions and single year GHG emissions would be well below DWR's screening level thresholds. However, as noted in Section 3.1.3, these screening thresholds are not established as thresholds of significance for CEQA purposes. Therefore, they are presented here for comparison purposes only.

IEUA has not developed numerical screening levels based on a baseline GHG inventory that can be used to evaluate whether a Proposed Project would conflict with achieving the Statewide 2030 GHG reduction goals. SCAQMD published interim CEQA GHG significance thresholds for stationary sources in 2008. SCAQMD set a screening significance threshold of 10,000 $MTCO_2e$/year for determining whether a stationary source project would have a less than significant cumulative GHG impact. Based on the results shown in **Table 4**, the Proposed Project's average annual GHG emissions would not exceed the SCAQMD significance threshold. However, these significance thresholds were meant to apply to industrial projects where SCAQMD is the lead agency, and therefore are only used in this analysis for comparison purposes. These thresholds were also adopted before the Statewide 2030 GHG reduction targets were set and are intended to evaluate whether a project would be consistent with the 2020 GHG reduction target of achieving 1990 levels by 2020, Statewide. SCAQMD has not yet proposed or adopted thresholds for GHG reduction targets beyond 2020.

To determine whether the Proposed Project emissions from construction would hinder the GHG reductions required on a Statewide basis by 2030 (40 percent below 1990 levels), this analysis has approximated a SCAQMD screening threshold for 2030. An annual GHG emission level of 6,000 $MTCO_2e$ would be 40 percent lower than the 10,000 $MTCO_2e$ threshold SCAQMD set to evaluate a project's consistency with achieving 1990 Statewide GHG levels. The Proposed Project's annual emissions in each year of construction between 2025 and 2028 would be lower than the calculated 6,000 $MTCO_2e$/year threshold on average. However, they could exceed 6,000 $MTCO_2e$/year in the most intensive year of construction activities.

The Proposed Project could adopt GHG reduction measures for construction activities, identified by the CAPCOA in its 2010 report, *Quantifying Greenhouse Gas Mitigation Measures*, which was developed with the support and cooperation of the SCAQMD.

> **Construction GHG Reduction Measures.** IEUA shall implement all feasible GHG reduction measures during construction. These may include, but shall not be limited to, the following measures identified in the California Air Pollution Control Officers Association 2010 report, "Q*uantifying Greenhouse Gas Mitigation Measures*," which was developed with the support and cooperation of the South Coast Air Quality Management District:
>
> - Use alternative fuels for construction equipment;
> - Use electric and hybrid construction equipment;
> - Limit construction equipment idling beyond regulation requirements;
> - Institute a heavy-duty off-road vehicle plan; and
> - Implement a construction vehicle inventory tracking system.
>
> Furthermore, where cost effective, IEUA shall mitigate the Project's temporary construction-related GHG emissions through the one-time purchase of accredited carbon offsets (current price is approximately \$0.50/$MTCO_2e$ for international offsets, \$3.50/$MTCO_2e$ for offsets within the United States, and \$8.50/$MTCO_2e$ for in-state offsets)

With incorporation of mitigation, annual construction GHG emissions from the Proposed Project would potentially hinder Statewide GHG reduction targets for 2030 because the timing of future construction phasing and sequencing, and the feasibility of implementing mitigation are uncertain. The Proposed Project's construction GHG emissions would be potentially significant and cumulatively considerable.

6.1.2 Operation

The Proposed Project is expected to be operational in 2028. At that time, it would provide up to 50,000 AFY of advanced treated water available to MWD in dry or critically dry years in exchange for the same amount of supply from the SWP. In return, 50,000 AFY of SWP water that would otherwise have been exported to MWD would be stored in Lake Oroville and used to enhance instream flows in the Feather River. Avoiding exporting SWP water to MWD would have energy savings, and an associated reduction in indirect GHG emissions. The amount of electricity required to supply, treat, and distribute water in Southern California is approximately 11,111 kWh/million gallons (CAPCOA 2010), or 3,621 kWh/AF. The GHG emissions from the SWP are approximately 0.15 $MTCO_2e$/MWh (Verma elec. comm. 2016). Thus, in years when the Proposed Project avoids 50,000 AFY of SWP water from being imported to MWD, it would avoid the generation of approximately 27,154 $MTCO_2e$ per year associated with operation of the SWP.

The Proposed Project would be energy intensive. It would require electricity for treatment, conveyance, injection, and extraction. A summary of the estimated annual energy usage of operation of each component of the Proposed Project, based on similar projects in Southern California (Carpinteria Valley Water District 2019, Sanchez elec. comm. 2020), and model default values from CalEEMod v. 2020.4.0 is presented below:

- Injection well: 5 kWh per AF per well
- Extraction well: 100 kWh per AF per well
- AWPF: 1,665 kWh per AF
- Pump station: 600 kWh per AF
- Wellhead Treatment: 10 kWh per AF
- Brine treatment and disposal: 625 kWh per AF

Energy consumption from the groundwater monitoring wells would be negligible. The Storage Reservoir would not directly consume energy, as water would be pumped into it directly from wells or through booster pump stations. The pipelines and turnouts would not consume energy once constructed.

Long-term operation of the Proposed Project would also involve occasional vehicle trips for operations and maintenance of the Proposed Project facilities activities. However, these emissions are assumed to be negligible because the Project facilities would be largely monitored remotely. The Proposed Project facilities would require no more than five to six trips per day, on average, for inspections, testing, and maintenance and these trips would be largely incorporated into existing operations activities.

At the AWPF (the most energy-consuming component of the Proposed Project), IEUA would explore supplying a portion of the electricity from the onsite 1 MW wind turbine and 1.5 MW battery at RP-4, and potentially use a 2.5 MW solar at the IERCF. However, for the purposes of this analysis, it was conservatively assumed that energy demands would be met by electricity supplied by SCE. The Proposed Project would not consume natural gas. As explained in Section 3.1.2, SCE has achieved 38 percent renewables and is on track to achieve 60 percent renewables by 2030. SCE's current carbon intensity factor is 390.983 lbs./MWh CO_2, 0.033 lbs./MWh N_2O, and 0.004 lbs./MWh CH_4, which equates to 0.178 $MTCO_2e$/MWh. Assuming SCE achieves 60 percent renewables by 2030, it would then have a carbon intensity factor of approximately 0.114 $MTCO_2e$/MWh.

The annual GHG emissions of the Proposed Project would depend on whether it is operating during a "call year" or a "non-call year." During "call years" the Proposed Project would extract, pump, and convey 50,000 AFY but it would also offset 50,000 AFY of imported water from the SWP. During "non-call years" the Proposed Project would only extract, pump, and convey 10,000 AFY, but it would not offset any imported SWP water. Under the scenario in which the Proposed Project operates in a "call year" and SCE has its current portfolio of 38 percent carbon-neutral electricity sources, the Project would emit an estimated 11,401$MTCO_2e$. In this scenario, the Project could potentially offset more GHG emissions than it would emit by avoiding SWP imported water, which generates GHG emissions of 27,154 $MTCO_2e$ per year, as stated previously. Under a scenario in which the Proposed Project operates in a "call year" and SCE has achieved 60 percent renewables, the Proposed Project would emit an estimated 7,355 $MTCO_2e$. In this scenario, the Project could potentially result in net-negative GHG emissions due to avoiding SWP imported water.

For "non-call year" scenarios, under the scenario in which SCE has its current portfolio of 38 percent carbon-neutral electricity sources, the Project would emit an estimated 6,435$MTCO_2e$. Under the scenario in which SCE achieves a portfolio with 60 percent renewables, the Project would emit an estimated 4,151$MTCO_2e$. Both of these scenarios represent "non-call years" in which the energy requirements of the Proposed Project, and associated GHG emissions, would not be offset by avoiding the import of SWP water.

As demonstrated by the estimates in the "call-years" scenarios, the Proposed Project could achieve net-neutral GHG emissions during "call-years" when it offsets an equivalent amount of imported water from the SWP. However, the ability to achieve carbon neutrality would depend on the carbon intensity of the electricity supply of the Proposed Project. The relative carbon intensity factor of the SWP versus that of SCE is an important factor; currently, SCE has

a carbon intensity factor around 0.178 $MTCO_2e$/MWh, whereas the carbon intensity factor of the SWP is around 0.15 $MTCO_2e$/MWh. When the Proposed Project operates in non-call years, and when it operates after the 25-year term of the agreement, it would not have an equivalent SWP offset. In these years, the electricity use and GHG emissions would be net-positive. Until SCE achieves a 100% carbon-neutral electricity supply (expected in 2045), or until IEUA supplies the Proposed Project with a carbon-neutral electricity source, the Proposed Project operations would have net-positive GHG emissions in "non-call years." Over the 25-year term of the CBP, at least 17.5 years would be non-call years.

As stated in Section 5, for the purposes of CEQA, the Proposed Project would have a significant impact if it would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment by failing to procure its electricity from carbon neutral electricity sources by 2045, or not meet its fair share of GHG reductions required on a Statewide basis by 2030. The Proposed Project, by procuring electricity from SCE, which is on-track to achieve 60 percent renewables by 2030, would not generate indirect GHG emissions associated with electricity consumption that exceed the Statewide 2030 targets. Furthermore, if IEUA were to use its own renewable energy for the Proposed Project's demands, it would accelerate the efforts toward carbon-neutral electricity supply. Therefore, operation of the Proposed Project would meet its fair share of GHG reductions required to achieve the Statewide 2030 GHG reduction targets, and impacts would be less than significant.

The Renewable Portfolio Standard for 2045, according to SB 100, which was signed into law in September 2018, is for California to obtain 100 percent of its electricity from carbon neutral sources by 2045. Although it is projected that SCE would have a 100 percent carbon neutral power supply by 2045, it is impossible to say with complete certainty that this will be achieved in the future. Likewise, it is impossible to say with certainty that IEUA will achieve its goal of carbon neutrality for all its facilities in the next 15 years. In "call years," when the Proposed Project energy use is offset by an equivalent amount of avoided imported SWP supply, the Proposed Project would likely have no net GHG emissions. However, the carbon-intensity of the SWP is also likely to fall in the future, which would reduce the amount of GHG the Proposed Project would offset. Because of the uncertainty surrounding the future power mix and energy demands of the Proposed Project, the long-term, indirect impacts of the Proposed Project's operational GHG emissions could be potentially significant and cumulatively considerable in call and non-call years.

To reduce indirect, operational GHG emissions from the Proposed Project, IEUA could adopt GHG reduction measures and/or purchase carbon offsets. However, because of the uncertainty surrounding the Proposed Project's future GHG emissions beyond 2030, with incorporation of mitigation, impacts would be potentially significant and cumulatively considerable.

Operational GHG Reduction Measures. IEUA shall implement all feasible GHG reduction measures during operations. These may include, but shall not be limited to, the following measures identified in the California Air Pollution Control Officers Association 2010 report, "Q*uantifying Greenhouse Gas Mitigation Measures*," which was developed with the support and cooperation of the South Coast Air Quality Management District:

- Exceed Title 24 Building energy efficiency standards
- Establish on-site renewable energy systems
- Utilize electric or hybrid vehicles and/or encourage operations and maintenance employees to carpool or otherwise commute using a method other than a single-occupancy fossil-fuel powered vehicle

Furthermore, where cost effective, IEUA shall mitigate the project's GHG emissions through the one-time purchase of accredited carbon offsets (current price is approximately \$0.50/$MTCO_2e$ for international offsets, \$3.50/$MTCO_2e$ for offsets within the United States, and \$8.50/$MTCO_2e$ for in-state offsets)

6.2 Consistency with Plans

6.2.1 CARB 2017 Climate Change Scoping Plan

The 2017 Climate Change Scoping Plan focuses primarily on reducing GHG emissions that result from mobile sources and land use development. The Proposed Project would not involve a considerable increase in new vehicle trips or land use changes that would result in an increase in vehicle trips, such as urban sprawl. The 2017 Climate Change Scoping Plan also recognizes that about 2 percent of the total energy used in the state is related to water conveyance; it calls for, "increased water conservation and efficiency, improved coordination and management of various water supplies, greater understanding of the water-energy nexus, deployment of new technologies in drinking water treatment, groundwater remediation and recharge, and potentially brackish and seawater desalination." By augmenting local water supplies, the Proposed Project would offset energy demands associated with imported water supplies. Therefore, the Proposed Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. Impacts would be less than significant, and no mitigation would be required.

6.2.2 IEUA CAP

The IEUA CCAP sets goals which are listed above in Section 3.1.4. The Proposed Project directly supports the CCAP objective to expand infrastructure to enhance capabilities for end user application, storage, or groundwater replenishment of recycled water. It also directly supports the CCAP objective of enhancing groundwater replenishment capabilities through infrastructure upgrades, and the expansion of groundwater storage of recycled water. The Proposed Project has components that intentionally lower the power demand on the electrical grid, such as the consideration of in-conduit hydropower facilities in locations of the potable water distribution system where the system pressure needs to be reduced and energy can be produced. During "call-years" the Proposed Project would offset imported water from the SWP, which would save energy and avoid SWP-related GHG emissions. The Proposed Project would incorporate the use of available renewable on-site generation at RP-4 if possible, including the 1 MW wind turbine and 1.5 MW battery at RP-4, if possible. IEUA would also consider use of a 2.5 MW solar at the IERCF. Therefore, it would support the CCAP objective to pursue renewable power generation at IEUA facilities. The Proposed Project would not conflict with the CCAP.

6.3 Cumulative Impacts

GHG emissions are, by definition, cumulative impacts because they affect the worldwide accumulation of GHGs in the atmosphere. Because climate change is not a local problem, the cumulative worldwide and statewide effects of GHG emissions are significant. For GHG, CEQA focuses on whether the incremental contribution of a proposed project is cumulatively considerable, and thus significant in and of itself. The Proposed Project would be consistent with applicable land use and zoning designations and would be consistent with many of the goals of the applicable State and local plans and programs designed to reduce GHG emissions. However, GHG emissions associated with the Proposed Project have the potential to be net-positive by 2045 because there may not be enough renewable energy sources available to off-set the GHGs generated by the Proposed Project. This would result in the Proposed Project not meeting the GHG reduction goals suggested by the applicable State plan (2017 Climate Change Scoping Plan), and thus be considered a cumulatively considerable impact. However, the Project would support the State with adapting to climate change by developing new local supplies that beneficially reuse wastewater and avoid imported water from the SWP. This is a necessary improvement to mitigate the impacts of climate change on water supply reliability, especially during critically dry years, which are expected to increase in frequency and intensity due to climate change. As climate changes, the State needs to adapt to climate change by improving water management resilience to account for warmer temperatures and declining snowpack. The new infrastructure of the Proposed Project would help manage water supply variability, thereby stabilizing water reliability in areas with limited water supply.

7. REFERENCES

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ATTACHMENT A: CALEEMOD OUTPUT SHEETS

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Chino Basin Program - Construction

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	1,354.00	1000sqft	31.08	1,354,000.00	0
Other Asphalt Surfaces	1,056.00	1000sqft	24.24	1,056,000.00	0
Unrefrigerated Warehouse-No Rail	163.00	1000sqft	3.74	163,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - CalEEMod has limited choices for land use types. Industrial Refrigerated Warehouse - no rail chosen for most CBP components because allows for project-specific entries for energy use, and construction. Parking Other Asphalt Surfaces chosen for pipes, turnouts because allows for project-specific entries on construction equipment, etc., and doesn't have operational energy usage.

Construction Phase - see project description

Off-road Equipment - see project description

Off-road Equipment - see project description

Off-road Equipment - see project description

Off-road Equipment - see project description

Off-road Equipment - see project description

Off-road Equipment -

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Off-road Equipment - see project description
Off-road Equipment - see project description
Off-road Equipment - see project description
Off-road Equipment - see project description
Off-road Equipment -
Off-road Equipment - see project description
Off-road Equipment - see project description
Off-road Equipment - see project description
Off-road Equipment -
Off-road Equipment - see project description
Off-road Equipment - see project description
Off-road Equipment - see project description
Grading - see project description
Demolition -
Trips and VMT - see project description.
Vehicle Trips - construction only
Area Coating - construction only
Landscape Equipment - construction only
Energy Use - construction only
Water And Wastewater - construction only
Solid Waste - construction only
Construction Off-road Equipment Mitigation - rule 403 and 90-percent Tier 4

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tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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tblOffRoadEquipment	UsageHours	7.00	4.00
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tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	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
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
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	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblSolidWaste	SolidWasteGenerationRate	1,272.76	0.00
tblSolidWaste	SolidWasteGenerationRate	153.22	0.00
tblTripsAndVMT	HaulingTripLength	20.00	50.00
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripNumber	0.00	40.00
tblTripsAndVMT	HaulingTripNumber	0.00	600.00
tblTripsAndVMT	HaulingTripNumber	0.00	660.00
tblTripsAndVMT	HaulingTripNumber	0.00	660.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,000.00
tblTripsAndVMT	HaulingTripNumber	0.00	20.00
tblTripsAndVMT	HaulingTripNumber	0.00	660.00
tblTripsAndVMT	VendorTripLength	6.90	50.00
tblTripsAndVMT	VendorTripLength	6.90	40.00
tblTripsAndVMT	VendorTripLength	6.90	40.00
tblTripsAndVMT	VendorTripLength	6.90	40.00
tblTripsAndVMT	VendorTripLength	6.90	40.00
tblTripsAndVMT	VendorTripLength	6.90	40.00
tblTripsAndVMT	VendorTripLength	6.90	40.00
tblTripsAndVMT	VendorTripLength	6.90	40.00
tblTripsAndVMT	VendorTripLength	6.90	20.00
tblTripsAndVMT	VendorTripNumber	0.00	128.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	VendorTripNumber	0.00	30.00
tblTripsAndVMT	VendorTripNumber	422.00	30.00
tblTripsAndVMT	VendorTripNumber	422.00	20.00
tblTripsAndVMT	VendorTripNumber	422.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	30.00
tblTripsAndVMT	VendorTripNumber	0.00	30.00
tblTripsAndVMT	VendorTripNumber	0.00	28.00
tblTripsAndVMT	VendorTripNumber	0.00	30.00
tblTripsAndVMT	VendorTripNumber	0.00	12.00
tblTripsAndVMT	VendorTripNumber	422.00	0.00
tblTripsAndVMT	WorkerTripLength	14.70	20.00
tblTripsAndVMT	WorkerTripLength	14.70	20.00
tblTripsAndVMT	WorkerTripLength	14.70	20.00
tblTripsAndVMT	WorkerTripLength	14.70	20.00
tblTripsAndVMT	WorkerTripLength	14.70	20.00
tblTripsAndVMT	WorkerTripLength	14.70	40.00
tblTripsAndVMT	WorkerTripLength	14.70	40.00
tblTripsAndVMT	WorkerTripLength	14.70	40.00
tblTripsAndVMT	WorkerTripLength	14.70	40.00
tblTripsAndVMT	WorkerTripLength	14.70	40.00
tblTripsAndVMT	WorkerTripNumber	73.00	80.00
tblTripsAndVMT	WorkerTripNumber	15.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,081.00	40.00
tblTripsAndVMT	WorkerTripNumber	15.00	20.00
tblTripsAndVMT	WorkerTripNumber	1,081.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	24.00
tblTripsAndVMT	WorkerTripNumber	1,081.00	24.00
tblTripsAndVMT	WorkerTripNumber	20.00	24.00
tblTripsAndVMT	WorkerTripNumber	23.00	40.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	WorkerTripNumber	100.00	84.00
tblTripsAndVMT	WorkerTripNumber	100.00	84.00
tblTripsAndVMT	WorkerTripNumber	100.00	28.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	18.00	40.00
tblTripsAndVMT	WorkerTripNumber	100.00	84.00
tblTripsAndVMT	WorkerTripNumber	1,081.00	10.00
tblVehicleTrips	ST_TR	2.12	0.00
tblVehicleTrips	ST_TR	1.74	0.00
tblVehicleTrips	SU_TR	2.12	0.00
tblVehicleTrips	SU_TR	1.74	0.00
tblVehicleTrips	WD_TR	2.12	0.00
tblVehicleTrips	WD_TR	1.74	0.00
tblWater	IndoorWaterUseRate	313,112,500.00	0.00
tblWater	IndoorWaterUseRate	37,693,750.00	0.00

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2025	1.0004	12.2408	9.1795	0.0402	3.9319	0.3782	4.3101	1.8993	0.3527	2.2520	0.0000	3,740.0454	3,740.0454	0.5180	0.2993	3,842.1715
2026	1.9686	21.4846	17.3031	0.0604	7.7330	0.7544	8.4874	3.9158	0.7050	4.6208	0.0000	5,543.1597	5,543.1597	0.8750	0.3526	5,670.1086
2027	2.7281	28.4829	24.2305	0.0791	9.0371	1.0053	10.0424	4.5176	0.9393	5.4568	0.0000	7,233.7876	7,233.7876	1.1735	0.4380	7,393.6351
Maximum	**2.7281**	**28.4829**	**24.2305**	**0.0791**	**9.0371**	**1.0053**	**10.0424**	**4.5176**	**0.9393**	**5.4568**	**0.0000**	**7,233.7876**	**7,233.7876**	**1.1735**	**0.4380**	**7,393.6351**

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					
2025	0.3909	5.8051	10.1665	0.0402	2.1222	0.0894	2.2116	0.9618	0.0850	1.0468	0.0000	3,740.0435	3,740.0435	0.5180	0.2993	3,842.1696
2026	0.6480	7.9647	19.3371	0.0604	3.9248	0.1389	4.0637	1.8964	0.1329	2.0293	0.0000	5,543.1562	5,543.1562	0.8750	0.3526	5,670.1051
2027	0.9528	10.1932	27.0765	0.0791	4.6576	0.1750	4.8326	2.2105	0.1679	2.3784	0.0000	7,233.7829	7,233.7829	1.1735	0.4380	7,393.6304
Maximum	**0.9528**	**10.1932**	**27.0765**	**0.0791**	**4.6576**	**0.1750**	**4.8326**	**2.2105**	**0.1679**	**2.3784**	**0.0000**	**7,233.7829**	**7,233.7829**	**1.1735**	**0.4380**	**7,393.6304**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**65.04**	**61.48**	**-11.57**	**0.00**	**48.29**	**81.14**	**51.37**	**50.95**	**80.68**	**55.76**	**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	**1-1-2025**	**3-31-2025**	4.6240	1.8897
2	**4-1-2025**	**6-30-2025**	2.8001	1.3729
3	**7-1-2025**	**9-30-2025**	2.8309	1.3880
4	**10-1-2025**	**12-31-2025**	2.8667	1.4237
5	**1-1-2026**	**3-31-2026**	7.1350	2.4807
6	**4-1-2026**	**6-30-2026**	5.3345	1.9659
7	**7-1-2026**	**9-30-2026**	5.3932	1.9875
8	**10-1-2026**	**12-31-2026**	5.4368	2.0311
9	**1-1-2027**	**3-31-2027**	8.8421	2.9687
10	**4-1-2027**	**6-30-2027**	7.1033	2.5546
11	**7-1-2027**	**9-30-2027**	7.5547	2.7174
		Highest	8.8421	2.9687

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	5.5499	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	**5.5499**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	5.5499	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	**5.5499**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	Wells	Grading	1/1/2025	12/31/2027	5	783	Wells
2	Pipelines25	Grading	1/1/2025	3/3/2025	5	44	Pipelines25
3	Pipelines26	Grading	1/1/2026	3/3/2026	5	44	Pipelines26

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4	Turnouts	Grading	1/1/2026	12/31/2027	5	522	Turnouts
5	WellheadDemo	Demolition	1/1/2027	1/28/2027	5	20	WellheadDemo
6	AWPFSiteprep	Site Preparation	1/1/2027	1/7/2027	5	5	AWPFSiteprep
7	Pipelines27	Grading	1/1/2027	3/3/2027	5	44	Pipelines27
8	PumpStationsGrading	Grading	1/1/2027	12/31/2027	5	261	PumpStationsGrading
9	PumpStationsConstruct	Building Construction	1/1/2027	12/31/2027	5	261	PumpStationsConstruct
10	AWPFGrading	Grading	1/8/2027	1/19/2027	5	8	AWPFGrading
11	AWPFConstruction	Building Construction	1/20/2027	12/7/2027	5	230	AWPFConstruction
12	WellheadGrading	Grading	1/29/2027	2/25/2027	5	20	WellheadGrading
13	WellheadConstruct	Building Construction	2/26/2027	12/3/2027	5	201	WellheadConstruct
14	StorageResGrading	Grading	8/2/2027	8/13/2027	5	10	StorageResGrading
15	StorageResConstruct	Building Construction	8/16/2027	11/26/2027	5	75	StorageResConstruct
16	StorageResPaving	Paving	11/29/2027	12/10/2027	5	10	StorageResPaving
17	WellheadPaving	Paving	12/6/2027	12/31/2027	5	20	WellheadPaving
18	AWPFPaving	Paving	12/8/2027	12/31/2027	5	18	AWPFPaving

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 18.5

Acres of Paving: 24.24

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
Wells	Rubber Tired Dozers	4	6.00	247	0.40
Wells	Tractors/Loaders/Backhoes	12	6.00	97	0.37
Wells	Bore/Drill Rigs	1	24.00	221	0.50
Wells	Cranes	4	6.00	231	0.29
Wells	Welders	4	4.00	46	0.45

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Pipelines25	Excavators	3	4.00	158	0.38
Pipelines25	Graders	1	8.00	187	0.41
Pipelines25	Rubber Tired Dozers	6	6.00	247	0.40
Pipelines25	Tractors/Loaders/Backhoes	3	6.00	97	0.37
Pipelines25	Crushing/Proc. Equipment	6	6.00	85	0.78
Pipelines25	Cranes	3	6.00	231	0.29
Pipelines25	Rollers	3	6.00	80	0.38
Pipelines25	Sweepers/Scrubbers	3	4.00	64	0.46
Pipelines25	Paving Equipment	3	2.00	132	0.36
Pipelines25	Generator Sets	3	1.00	84	0.74
Pipelines26	Excavators	3	4.00	158	0.38
Pipelines26	Graders	1	8.00	187	0.41
Pipelines26	Rubber Tired Dozers	6	6.00	247	0.40
Pipelines26	Tractors/Loaders/Backhoes	3	6.00	97	0.37
Pipelines26	Crushing/Proc. Equipment	6	6.00	85	0.78
Pipelines26	Cranes	3	6.00	231	0.29
Pipelines26	Rollers	3	6.00	80	0.38
Pipelines26	Sweepers/Scrubbers	3	4.00	64	0.46
Pipelines26	Paving Equipment	3	2.00	132	0.36
Pipelines26	Generator Sets	3	1.00	84	0.74
Pipelines27	Excavators	3	4.00	158	0.38
Pipelines27	Graders	1	8.00	187	0.41
Pipelines27	Rubber Tired Dozers	6	6.00	247	0.40
Pipelines27	Tractors/Loaders/Backhoes	3	6.00	97	0.37
Pipelines27	Crushing/Proc. Equipment	6	6.00	85	0.78
Pipelines27	Cranes	3	6.00	231	0.29
Pipelines27	Rollers	3	6.00	80	0.38
Pipelines27	Sweepers/Scrubbers	3	4.00	64	0.46
Pipelines27	Paving Equipment	3	2.00	132	0.36

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Pipelines27	Generator Sets	3	1.00	84	0.74
Turnouts	Excavators	3	4.00	158	0.38
Turnouts	Graders	1	8.00	187	0.41
Turnouts	Rubber Tired Dozers	6	6.00	247	0.40
Turnouts	Tractors/Loaders/Backhoes	3	6.00	97	0.37
Turnouts	Crushing/Proc. Equipment	6	6.00	85	0.78
Turnouts	Cranes	3	6.00	231	0.29
Turnouts	Rollers	3	6.00	80	0.38
Turnouts	Sweepers/Scrubbers	3	4.00	64	0.46
Turnouts	Paving Equipment	3	2.00	132	0.36
Turnouts	Generator Sets	3	1.00	84	0.74
AWPFSiteprep	Rubber Tired Dozers	3	8.00	247	0.40
AWPFSiteprep	Tractors/Loaders/Backhoes	4	8.00	97	0.37
AWPFGrading	Excavators	1	8.00	158	0.38
AWPFGrading	Graders	1	8.00	187	0.41
AWPFGrading	Rubber Tired Dozers	1	8.00	247	0.40
AWPFGrading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
AWPFConstruction	Cranes	1	7.00	231	0.29
AWPFConstruction	Forklifts	3	8.00	89	0.20
AWPFConstruction	Generator Sets	1	8.00	84	0.74
AWPFConstruction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
AWPFConstruction	Welders	1	8.00	46	0.45
AWPFPaving	Cement and Mortar Mixers	2	6.00	9	0.56
AWPFPaving	Pavers	1	8.00	130	0.42
AWPFPaving	Paving Equipment	2	6.00	132	0.36
AWPFPaving	Rollers	2	6.00	80	0.38
AWPFPaving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
PumpStationsGrading	Graders	1	8.00	187	0.41
PumpStationsGrading	Rubber Tired Dozers	1	8.00	247	0.40

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

PumpStationsGrading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
PumpStationsConstruct	Cranes	1	4.00	231	0.29
PumpStationsConstruct	Forklifts	1	4.00	89	0.20
PumpStationsConstruct	Tractors/Loaders/Backhoes	2	4.00	97	0.37
PumpStationsConstruct	Welders	1	4.00	46	0.45
WellheadDemo	Concrete/Industrial Saws	2	6.00	81	0.73
WellheadDemo	Rubber Tired Dozers	2	6.00	247	0.40
WellheadGrading	Graders	2	6.00	187	0.41
WellheadGrading	Tractors/Loaders/Backhoes	4	6.00	97	0.37
WellheadConstruct	Cranes	2	4.00	231	0.29
WellheadConstruct	Forklifts	2	6.00	89	0.20
WellheadConstruct	Generator Sets	2	4.00	84	0.74
WellheadConstruct	Tractors/Loaders/Backhoes	4	6.00	97	0.37
WellheadConstruct	Welders	2	4.00	46	0.45
WellheadPaving	Pavers	2	6.00	130	0.42
WellheadPaving	Paving Equipment	2	6.00	132	0.36
WellheadPaving	Rollers	2	6.00	80	0.38
StorageResGrading	Excavators	1	8.00	158	0.38
StorageResGrading	Graders	1	8.00	187	0.41
StorageResGrading	Rubber Tired Dozers	1	8.00	247	0.40
StorageResGrading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
StorageResConstruct	Cranes	1	7.00	231	0.29
StorageResConstruct	Forklifts	3	8.00	89	0.20
StorageResConstruct	Generator Sets	1	8.00	84	0.74
StorageResConstruct	Tractors/Loaders/Backhoes	3	7.00	97	0.37
StorageResConstruct	Welders	1	8.00	46	0.45
StorageResPaving	Cement and Mortar Mixers	2	6.00	9	0.56
StorageResPaving	Pavers	1	8.00	130	0.42
StorageResPaving	Paving Equipment	2	6.00	132	0.36

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

StorageResPaving	Rollers	2	6.00	80	0.38
StorageResPaving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Wells	Generator Sets	4	4.00	84	0.74
Pipelines25	Plate Compactors	3	2.00	8	0.43
Pipelines25	Signal Boards	3	6.00	6	0.82
Pipelines26	Plate Compactors	3	2.00	8	0.43
Pipelines26	Signal Boards	3	6.00	6	0.82
Turnouts	Plate Compactors	3	2.00	8	0.43
Turnouts	Signal Boards	3	6.00	6	0.82
Pipelines27	Plate Compactors	3	2.00	8	0.43
Pipelines27	Signal Boards	3	6.00	6	0.82
WellheadPaving	Plate Compactors	2	6.00	8	0.43
AWPFPaving	Plate Compactors	1	6.00	8	0.43

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
Wells	29	80.00	128.00	40.00	14.70	50.00	20.00	LD_Mix	HDT_Mix	HHDT
Pipelines25	40	84.00	30.00	660.00	40.00	40.00	40.00	LD_Mix	HDT_Mix	HHDT
Pipelines26	40	84.00	30.00	660.00	40.00	40.00	40.00	LD_Mix	HDT_Mix	HHDT
Pipelines27	40	84.00	30.00	660.00	40.00	40.00	40.00	LD_Mix	HDT_Mix	HHDT
Turnouts	40	28.00	28.00	2,000.00	40.00	40.00	40.00	LD_Mix	HDT_Mix	HHDT
AWPFSiteprep	7	40.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
AWPFGrading	6	40.00	30.00	0.00	14.70	40.00	20.00	LD_Mix	HDT_Mix	HHDT
AWPFConstruction	9	40.00	30.00	0.00	14.70	40.00	20.00	LD_Mix	HDT_Mix	HHDT
AWPFPaving	9	40.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
PumpStationsGrading	4	10.00	12.00	0.00	14.70	20.00	20.00	LD_Mix	HDT_Mix	HHDT
PumpStationsConstruct	5	10.00	0.00	0.00	40.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

WellheadDemo	4	20.00	0.00	20.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
WellheadGrading	6	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
WellheadConstruct	12	20.00	20.00	0.00	20.00	40.00	20.00	LD_Mix	HDT_Mix	HHDT
WellheadPaving	8	20.00	0.00	0.00	20.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
StorageResGrading	6	24.00	0.00	600.00	20.00	6.90	50.00	LD_Mix	HDT_Mix	HHDT
StorageResConstruct	9	24.00	0.00	0.00	20.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
StorageResPaving	8	24.00	0.00	0.00	20.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Wells - 2025

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					2.3675	0.0000	2.3675	1.2970	0.0000	1.2970	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7402	7.1102	6.6556	0.0154		0.2894	0.2894		0.2691	0.2691	0.0000	1,336.4347	1,336.4347	0.3788	0.0000	1,345.9035
Total	**0.7402**	**7.1102**	**6.6556**	**0.0154**	**2.3675**	**0.2894**	**2.6568**	**1.2970**	**0.2691**	**1.5661**	**0.0000**	**1,336.4347**	**1,336.4347**	**0.3788**	**0.0000**	**1,345.9035**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Wells - 2025

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	1.0000e-005	8.6000e-004	2.4000e-004	0.0000	1.1000e-004	1.0000e-005	1.2000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3721	0.3721	2.0000e-005	6.0000e-005	0.3903
Vendor	0.0597	3.4724	0.7490	0.0199	0.7605	0.0241	0.7846	0.2191	0.0231	0.2422	0.0000	1,948.9463	1,948.9463	0.0748	0.2817	2,034.7644
Worker	0.0284	0.0200	0.2954	9.2000e-004	0.1145	6.0000e-004	0.1151	0.0304	5.5000e-004	0.0310	0.0000	84.0503	84.0503	1.8900e-003	2.0000e-003	84.6949
Total	**0.0881**	**3.4933**	**1.0447**	**0.0208**	**0.8751**	**0.0247**	**0.8998**	**0.2496**	**0.0236**	**0.2732**	**0.0000**	**2,033.3687**	**2,033.3687**	**0.0767**	**0.2838**	**2,119.8496**

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					1.0654	0.0000	1.0654	0.5837	0.0000	0.5837	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2506	1.8688	7.4662	0.0154		0.0557	0.0557		0.0527	0.0527	0.0000	1,336.4331	1,336.4331	0.3788	0.0000	1,345.9019
Total	**0.2506**	**1.8688**	**7.4662**	**0.0154**	**1.0654**	**0.0557**	**1.1210**	**0.5837**	**0.0527**	**0.6363**	**0.0000**	**1,336.4331**	**1,336.4331**	**0.3788**	**0.0000**	**1,345.9019**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Wells - 2025

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	1.0000e-005	8.6000e-004	2.4000e-004	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	3.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3721	0.3721	2.0000e-005	6.0000e-005	0.3903
Vendor	0.0597	3.4724	0.7490	0.0199	0.6254	0.0241	0.6495	0.1860	0.0231	0.2091	0.0000	1,948.9463	1,948.9463	0.0748	0.2817	2,034.7644
Worker	0.0284	0.0200	0.2954	9.2000e-004	0.0897	6.0000e-004	0.0903	0.0243	5.5000e-004	0.0249	0.0000	84.0503	84.0503	1.8900e-003	2.0000e-003	84.6949
Total	**0.0881**	**3.4933**	**1.0447**	**0.0208**	**0.7152**	**0.0247**	**0.7399**	**0.2103**	**0.0236**	**0.2340**	**0.0000**	**2,033.3687**	**2,033.3687**	**0.0767**	**0.2838**	**2,119.8496**

3.2 Wells - 2026

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					2.3675	0.0000	2.3675	1.2970	0.0000	1.2970	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7402	7.1102	6.6556	0.0154		0.2894	0.2894		0.2691	0.2691	0.0000	1,336.4347	1,336.4347	0.3788	0.0000	1,345.9035
Total	**0.7402**	**7.1102**	**6.6556**	**0.0154**	**2.3675**	**0.2894**	**2.6568**	**1.2970**	**0.2691**	**1.5661**	**0.0000**	**1,336.4347**	**1,336.4347**	**0.3788**	**0.0000**	**1,345.9035**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Wells - 2026

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	1.0000e-005	8.5000e-004	2.4000e-004	0.0000	1.1000e-004	1.0000e-005	1.2000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3651	0.3651	2.0000e-005	6.0000e-005	0.3830
Vendor	0.0577	3.4443	0.7385	0.0195	0.7605	0.0241	0.7846	0.2191	0.0231	0.2422	0.0000	1,912.9449	1,912.9449	0.0750	0.2768	1,997.3153
Worker	0.0268	0.0182	0.2775	8.9000e-004	0.1145	5.7000e-004	0.1151	0.0304	5.2000e-004	0.0309	0.0000	81.4738	81.4738	1.7200e-003	1.8900e-003	82.0801
Total	**0.0845**	**3.4633**	**1.0163**	**0.0204**	**0.8751**	**0.0247**	**0.8998**	**0.2496**	**0.0236**	**0.2732**	**0.0000**	**1,994.7837**	**1,994.7837**	**0.0767**	**0.2788**	**2,079.7784**

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					1.0654	0.0000	1.0654	0.5837	0.0000	0.5837	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2506	1.8688	7.4662	0.0154		0.0557	0.0557		0.0527	0.0527	0.0000	1,336.4331	1,336.4331	0.3788	0.0000	1,345.9019
Total	**0.2506**	**1.8688**	**7.4662**	**0.0154**	**1.0654**	**0.0557**	**1.1210**	**0.5837**	**0.0527**	**0.6363**	**0.0000**	**1,336.4331**	**1,336.4331**	**0.3788**	**0.0000**	**1,345.9019**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Wells - 2026

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	1.0000e-005	8.5000e-004	2.4000e-004	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	3.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3651	0.3651	2.0000e-005	6.0000e-005	0.3830
Vendor	0.0577	3.4443	0.7385	0.0195	0.6254	0.0241	0.6495	0.1860	0.0231	0.2090	0.0000	1,912.9449	1,912.9449	0.0750	0.2768	1,997.3153
Worker	0.0268	0.0182	0.2775	8.9000e-004	0.0897	5.7000e-004	0.0903	0.0243	5.2000e-004	0.0249	0.0000	81.4738	81.4738	1.7200e-003	1.8900e-003	82.0801
Total	**0.0845**	**3.4633**	**1.0163**	**0.0204**	**0.7152**	**0.0247**	**0.7398**	**0.2103**	**0.0236**	**0.2339**	**0.0000**	**1,994.7837**	**1,994.7837**	**0.0767**	**0.2788**	**2,079.7784**

3.2 Wells - 2027

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					2.3675	0.0000	2.3675	1.2970	0.0000	1.2970	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7402	7.1102	6.6556	0.0154		0.2894	0.2894		0.2691	0.2691	0.0000	1,336.4347	1,336.4347	0.3788	0.0000	1,345.9035
Total	**0.7402**	**7.1102**	**6.6556**	**0.0154**	**2.3675**	**0.2894**	**2.6568**	**1.2970**	**0.2691**	**1.5661**	**0.0000**	**1,336.4347**	**1,336.4347**	**0.3788**	**0.0000**	**1,345.9035**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Wells - 2027

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	1.0000e-005	8.4000e-004	2.4000e-004	0.0000	1.1000e-004	1.0000e-005	1.2000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3578	0.3578	2.0000e-005	6.0000e-005	0.3754
Vendor	0.0560	3.4140	0.7296	0.0191	0.7605	0.0240	0.7845	0.2191	0.0230	0.2421	0.0000	1,875.2229	1,875.2229	0.0749	0.2717	1,958.0722
Worker	0.0253	0.0166	0.2623	8.6000e-004	0.1145	5.3000e-004	0.1151	0.0304	4.9000e-004	0.0309	0.0000	79.1847	79.1847	1.5700e-003	1.7900e-003	79.7589
Total	**0.0813**	**3.4315**	**0.9921**	**0.0199**	**0.8751**	**0.0246**	**0.8997**	**0.2496**	**0.0235**	**0.2731**	**0.0000**	**1,954.7654**	**1,954.7654**	**0.0765**	**0.2736**	**2,038.2064**

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					1.0654	0.0000	1.0654	0.5837	0.0000	0.5837	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2506	1.8688	7.4662	0.0154		0.0557	0.0557		0.0527	0.0527	0.0000	1,336.4331	1,336.4331	0.3788	0.0000	1,345.9019
Total	**0.2506**	**1.8688**	**7.4662**	**0.0154**	**1.0654**	**0.0557**	**1.1210**	**0.5837**	**0.0527**	**0.6363**	**0.0000**	**1,336.4331**	**1,336.4331**	**0.3788**	**0.0000**	**1,345.9019**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Wells - 2027

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	1.0000e-005	8.4000e-004	2.4000e-004	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	3.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3578	0.3578	2.0000e-005	6.0000e-005	0.3754
Vendor	0.0560	3.4140	0.7296	0.0191	0.6254	0.0240	0.6494	0.1860	0.0230	0.2090	0.0000	1,875.2229	1,875.2229	0.0749	0.2717	1,958.0722
Worker	0.0253	0.0166	0.2623	8.6000e-004	0.0897	5.3000e-004	0.0903	0.0243	4.9000e-004	0.0248	0.0000	79.1847	79.1847	1.5700e-003	1.7900e-003	79.7589
Total	**0.0813**	**3.4315**	**0.9921**	**0.0199**	**0.7152**	**0.0246**	**0.7397**	**0.2103**	**0.0235**	**0.2338**	**0.0000**	**1,954.7654**	**1,954.7654**	**0.0765**	**0.2736**	**2,038.2064**

3.3 Pipelines25 - 2025

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					0.5988	0.0000	0.5988	0.3280	0.0000	0.3280	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1586	1.4383	1.3081	2.6700e-003		0.0625	0.0625		0.0585	0.0585	0.0000	232.4422	232.4422	0.0572	0.0000	233.8721
Total	**0.1586**	**1.4383**	**1.3081**	**2.6700e-003**	**0.5988**	**0.0625**	**0.6613**	**0.3280**	**0.0585**	**0.3865**	**0.0000**	**232.4422**	**232.4422**	**0.0572**	**0.0000**	**233.8721**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Pipelines25 - 2025

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	1.0100e-003	0.0794	0.0187	3.6000e-004	0.0114	5.7000e-004	0.0119	3.1100e-003	5.5000e-004	3.6600e-003	0.0000	36.0450	36.0450	2.3300e-003	5.7400e-003	37.8132
Vendor	1.9600e-003	0.1112	0.0248	6.3000e-004	0.0240	7.6000e-004	0.0248	6.9300e-003	7.3000e-004	7.6600e-003	0.0000	61.7846	61.7846	2.3700e-003	8.9300e-003	64.5060
Worker	0.0106	8.3700e-003	0.1275	4.4000e-004	0.0551	2.7000e-004	0.0554	0.0146	2.5000e-004	0.0149	0.0000	39.9701	39.9701	6.1000e-004	8.1000e-004	40.2272
Total	**0.0135**	**0.1991**	**0.1711**	**1.4300e-003**	**0.0905**	**1.6000e-003**	**0.0921**	**0.0247**	**1.5300e-003**	**0.0262**	**0.0000**	**137.7997**	**137.7997**	**5.3100e-003**	**0.0155**	**142.5463**

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					0.2695	0.0000	0.2695	0.1476	0.0000	0.1476	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0387	0.2440	1.4846	2.6700e-003		7.4100e-003	7.4100e-003		7.1800e-003	7.1800e-003	0.0000	232.4420	232.4420	0.0572	0.0000	233.8718
Total	**0.0387**	**0.2440**	**1.4846**	**2.6700e-003**	**0.2695**	**7.4100e-003**	**0.2769**	**0.1476**	**7.1800e-003**	**0.1548**	**0.0000**	**232.4420**	**232.4420**	**0.0572**	**0.0000**	**233.8718**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Pipelines25 - 2025

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	1.0100e-003	0.0794	0.0187	3.6000e-004	9.2100e-003	5.7000e-004	9.7800e-003	2.5900e-003	5.5000e-004	3.1400e-003	0.0000	36.0450	36.0450	2.3300e-003	5.7400e-003	37.8132
Vendor	1.9600e-003	0.1112	0.0248	6.3000e-004	0.0198	7.6000e-004	0.0205	5.8800e-003	7.3000e-004	6.6100e-003	0.0000	61.7846	61.7846	2.3700e-003	8.9300e-003	64.5060
Worker	0.0106	8.3700e-003	0.1275	4.4000e-004	0.0432	2.7000e-004	0.0435	0.0117	2.5000e-004	0.0120	0.0000	39.9701	39.9701	6.1000e-004	8.1000e-004	40.2272
Total	**0.0135**	**0.1991**	**0.1711**	**1.4300e-003**	**0.0722**	**1.6000e-003**	**0.0738**	**0.0202**	**1.5300e-003**	**0.0217**	**0.0000**	**137.7997**	**137.7997**	**5.3100e-003**	**0.0155**	**142.5463**

3.4 Pipelines26 - 2026

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					0.5988	0.0000	0.5988	0.3280	0.0000	0.3280	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1586	1.4383	1.3081	2.6700e-003		0.0625	0.0625		0.0585	0.0585	0.0000	232.4422	232.4422	0.0572	0.0000	233.8721
Total	**0.1586**	**1.4383**	**1.3081**	**2.6700e-003**	**0.5988**	**0.0625**	**0.6613**	**0.3280**	**0.0585**	**0.3865**	**0.0000**	**232.4422**	**232.4422**	**0.0572**	**0.0000**	**233.8721**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Pipelines26 - 2026

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	1.0000e-003	0.0786	0.0189	3.5000e-004	0.0114	5.7000e-004	0.0119	3.1100e-003	5.4000e-004	3.6600e-003	0.0000	35.3668	35.3668	2.3400e-003	5.6300e-003	37.1036
Vendor	1.9000e-003	0.1104	0.0245	6.2000e-004	0.0240	7.6000e-004	0.0248	6.9300e-003	7.3000e-004	7.6600e-003	0.0000	60.6432	60.6432	2.3800e-003	8.7800e-003	63.3187
Worker	0.0100	7.5600e-003	0.1195	4.2000e-004	0.0551	2.6000e-004	0.0554	0.0146	2.4000e-004	0.0149	0.0000	38.7452	38.7452	5.5000e-004	7.6000e-004	38.9863
Total	**0.0129**	**0.1965**	**0.1629**	**1.3900e-003**	**0.0905**	**1.5900e-003**	**0.0921**	**0.0247**	**1.5100e-003**	**0.0262**	**0.0000**	**134.7552**	**134.7552**	**5.2700e-003**	**0.0152**	**139.4086**

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					0.2695	0.0000	0.2695	0.1476	0.0000	0.1476	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0387	0.2440	1.4846	2.6700e-003		7.4100e-003	7.4100e-003		7.1800e-003	7.1800e-003	0.0000	232.4420	232.4420	0.0572	0.0000	233.8718
Total	**0.0387**	**0.2440**	**1.4846**	**2.6700e-003**	**0.2695**	**7.4100e-003**	**0.2769**	**0.1476**	**7.1800e-003**	**0.1548**	**0.0000**	**232.4420**	**232.4420**	**0.0572**	**0.0000**	**233.8718**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Pipelines26 - 2026

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	1.0000e-003	0.0786	0.0189	3.5000e-004	9.2100e-003	5.7000e-004	9.7800e-003	2.5900e-003	5.4000e-004	3.1400e-003	0.0000	35.3668	35.3668	2.3400e-003	5.6300e-003	37.1036
Vendor	1.9000e-003	0.1104	0.0245	6.2000e-004	0.0198	7.6000e-004	0.0205	5.8800e-003	7.3000e-004	6.6100e-003	0.0000	60.6432	60.6432	2.3800e-003	8.7800e-003	63.3187
Worker	0.0100	7.5600e-003	0.1195	4.2000e-004	0.0432	2.6000e-004	0.0434	0.0117	2.4000e-004	0.0119	0.0000	38.7452	38.7452	5.5000e-004	7.6000e-004	38.9863
Total	**0.0129**	**0.1965**	**0.1629**	**1.3900e-003**	**0.0722**	**1.5900e-003**	**0.0738**	**0.0202**	**1.5100e-003**	**0.0217**	**0.0000**	**134.7552**	**134.7552**	**5.2700e-003**	**0.0152**	**139.4086**

3.5 Turnouts - 2026

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					3.5418	0.0000	3.5418	1.9445	0.0000	1.9445	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.9406	8.5315	7.7596	0.0159		0.3707	0.3707		0.3470	0.3470	0.0000	1,378.8051	1,378.8051	0.3393	0.0000	1,387.2867
Total	**0.9406**	**8.5315**	**7.7596**	**0.0159**	**3.5418**	**0.3707**	**3.9124**	**1.9445**	**0.3470**	**2.2915**	**0.0000**	**1,378.8051**	**1,378.8051**	**0.3393**	**0.0000**	**1,387.2867**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Turnouts - 2026

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	1.5100e-003	0.1190	0.0287	5.3000e-004	0.0172	8.6000e-004	0.0181	4.7200e-003	8.2000e-004	5.5400e-003	0.0000	53.5860	53.5860	3.5400e-003	8.5300e-003	56.2175
Vendor	0.0105	0.6109	0.1356	3.4200e-003	0.1331	4.2200e-003	0.1373	0.0384	4.0400e-003	0.0424	0.0000	335.7430	335.7430	0.0132	0.0486	350.5553
Worker	0.0198	0.0150	0.2363	8.4000e-004	0.1090	5.2000e-004	0.1095	0.0290	4.7000e-004	0.0294	0.0000	76.6098	76.6098	1.0900e-003	1.5100e-003	77.0866
Total	**0.0318**	**0.7449**	**0.4006**	**4.7900e-003**	**0.2593**	**5.6000e-003**	**0.2649**	**0.0720**	**5.3300e-003**	**0.0774**	**0.0000**	**465.9388**	**465.9388**	**0.0178**	**0.0586**	**483.8594**

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					1.5938	0.0000	1.5938	0.8750	0.0000	0.8750	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2295	1.4472	8.8065	0.0159		0.0440	0.0440		0.0426	0.0426	0.0000	1,378.8035	1,378.8035	0.3393	0.0000	1,387.2851
Total	**0.2295**	**1.4472**	**8.8065**	**0.0159**	**1.5938**	**0.0440**	**1.6378**	**0.8750**	**0.0426**	**0.9176**	**0.0000**	**1,378.8035**	**1,378.8035**	**0.3393**	**0.0000**	**1,387.2851**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Turnouts - 2026

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	1.5100e-003	0.1190	0.0287	5.3000e-004	0.0140	8.6000e-004	0.0148	3.9300e-003	8.2000e-004	4.7500e-003	0.0000	53.5860	53.5860	3.5400e-003	8.5300e-003	56.2175
Vendor	0.0105	0.6109	0.1356	3.4200e-003	0.1095	4.2200e-003	0.1137	0.0326	4.0400e-003	0.0366	0.0000	335.7430	335.7430	0.0132	0.0486	350.5553
Worker	0.0198	0.0150	0.2363	8.4000e-004	0.0854	5.2000e-004	0.0859	0.0231	4.7000e-004	0.0236	0.0000	76.6098	76.6098	1.0900e-003	1.5100e-003	77.0866
Total	**0.0318**	**0.7449**	**0.4006**	**4.7900e-003**	**0.2088**	**5.6000e-003**	**0.2144**	**0.0596**	**5.3300e-003**	**0.0650**	**0.0000**	**465.9388**	**465.9388**	**0.0178**	**0.0586**	**483.8594**

3.5 Turnouts - 2027

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					3.5418	0.0000	3.5418	1.9445	0.0000	1.9445	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.9406	8.5315	7.7596	0.0159		0.3707	0.3707		0.3470	0.3470	0.0000	1,378.8051	1,378.8051	0.3393	0.0000	1,387.2867
Total	**0.9406**	**8.5315**	**7.7596**	**0.0159**	**3.5418**	**0.3707**	**3.9124**	**1.9445**	**0.3470**	**2.2915**	**0.0000**	**1,378.8051**	**1,378.8051**	**0.3393**	**0.0000**	**1,387.2867**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Turnouts - 2027

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	1.4900e-003	0.1177	0.0290	5.2000e-004	0.0172	8.6000e-004	0.0181	4.7200e-003	8.2000e-004	5.5400e-003	0.0000	52.5139	52.5139	3.5400e-003	8.3600e-003	55.0952
Vendor	0.0102	0.6056	0.1340	3.3500e-003	0.1331	4.2100e-003	0.1373	0.0384	4.0300e-003	0.0424	0.0000	329.1233	329.1233	0.0131	0.0477	343.6685
Worker	0.0187	0.0136	0.2228	8.1000e-004	0.1090	4.8000e-004	0.1095	0.0290	4.4000e-004	0.0294	0.0000	74.4581	74.4581	9.9000e-004	1.4300e-003	74.9086
Total	**0.0304**	**0.7369**	**0.3858**	**4.6800e-003**	**0.2593**	**5.5500e-003**	**0.2649**	**0.0720**	**5.2900e-003**	**0.0773**	**0.0000**	**456.0953**	**456.0953**	**0.0177**	**0.0575**	**473.6723**

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					1.5938	0.0000	1.5938	0.8750	0.0000	0.8750	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2295	1.4472	8.8065	0.0159		0.0440	0.0440		0.0426	0.0426	0.0000	1,378.8035	1,378.8035	0.3393	0.0000	1,387.2851
Total	**0.2295**	**1.4472**	**8.8065**	**0.0159**	**1.5938**	**0.0440**	**1.6378**	**0.8750**	**0.0426**	**0.9176**	**0.0000**	**1,378.8035**	**1,378.8035**	**0.3393**	**0.0000**	**1,387.2851**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Turnouts - 2027

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	1.4900e-003	0.1177	0.0290	5.2000e-004	0.0140	8.6000e-004	0.0148	3.9300e-003	8.2000e-004	4.7500e-003	0.0000	52.5139	52.5139	3.5400e-003	8.3600e-003	55.0952
Vendor	0.0102	0.6056	0.1340	3.3500e-003	0.1095	4.2100e-003	0.1137	0.0326	4.0300e-003	0.0366	0.0000	329.1233	329.1233	0.0131	0.0477	343.6685
Worker	0.0187	0.0136	0.2228	8.1000e-004	0.0854	4.8000e-004	0.0859	0.0231	4.4000e-004	0.0236	0.0000	74.4581	74.4581	9.9000e-004	1.4300e-003	74.9086
Total	**0.0304**	**0.7369**	**0.3858**	**4.6800e-003**	**0.2088**	**5.5500e-003**	**0.2144**	**0.0596**	**5.2900e-003**	**0.0649**	**0.0000**	**456.0953**	**456.0953**	**0.0177**	**0.0575**	**473.6723**

3.6 WellheadDemo - 2027

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0142	0.1335	0.0996	2.2000e-004		5.7400e-003	5.7400e-003		5.4000e-003	5.4000e-003	0.0000	19.3179	19.3179	3.9900e-003	0.0000	19.4178
Total	**0.0142**	**0.1335**	**0.0996**	**2.2000e-004**	**0.0000**	**5.7400e-003**	**5.7400e-003**	**0.0000**	**5.4000e-003**	**5.4000e-003**	**0.0000**	**19.3179**	**19.3179**	**3.9900e-003**	**0.0000**	**19.4178**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 WellheadDemo - 2027

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	2.0000e-005	1.2700e-003	3.6000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.5367	0.5367	4.0000e-005	9.0000e-005	0.5630
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	4.8000e-004	3.2000e-004	5.0200e-003	2.0000e-005	2.1900e-003	1.0000e-005	2.2000e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	1.5170	1.5170	3.0000e-005	3.0000e-005	1.5280
Total	**5.0000e-004**	**1.5900e-003**	**5.3800e-003**	**3.0000e-005**	**2.3600e-003**	**2.0000e-005**	**2.3800e-003**	**6.3000e-004**	**2.0000e-005**	**6.5000e-004**	**0.0000**	**2.0536**	**2.0536**	**7.0000e-005**	**1.2000e-004**	**2.0910**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-003	0.0164	0.1146	2.2000e-004		5.8000e-004	5.8000e-004		5.6000e-004	5.6000e-004	0.0000	19.3179	19.3179	3.9900e-003	0.0000	19.4178
Total	**3.0000e-003**	**0.0164**	**0.1146**	**2.2000e-004**	**0.0000**	**5.8000e-004**	**5.8000e-004**	**0.0000**	**5.6000e-004**	**5.6000e-004**	**0.0000**	**19.3179**	**19.3179**	**3.9900e-003**	**0.0000**	**19.4178**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 WellheadDemo - 2027

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	2.0000e-005	1.2700e-003	3.6000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5367	0.5367	4.0000e-005	9.0000e-005	0.5630
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	4.8000e-004	3.2000e-004	5.0200e-003	2.0000e-005	1.7200e-003	1.0000e-005	1.7300e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.5170	1.5170	3.0000e-005	3.0000e-005	1.5280
Total	**5.0000e-004**	**1.5900e-003**	**5.3800e-003**	**3.0000e-005**	**1.8600e-003**	**2.0000e-005**	**1.8800e-003**	**5.1000e-004**	**2.0000e-005**	**5.3000e-004**	**0.0000**	**2.0536**	**2.0536**	**7.0000e-005**	**1.2000e-004**	**2.0910**

3.7 AWPFSiteprep - 2027

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					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1800e-003	0.0631	0.0448	1.0000e-004		2.7200e-003	2.7200e-003		2.5000e-003	2.5000e-003	0.0000	8.3668	8.3668	2.7100e-003	0.0000	8.4344
Total	**6.1800e-003**	**0.0631**	**0.0448**	**1.0000e-004**	**0.0452**	**2.7200e-003**	**0.0479**	**0.0248**	**2.5000e-003**	**0.0273**	**0.0000**	**8.3668**	**8.3668**	**2.7100e-003**	**0.0000**	**8.4344**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 AWPFSiteprep - 2027

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	2.4000e-004	1.6000e-004	2.5100e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1000e-003	2.9000e-004	0.0000	3.0000e-004	0.0000	0.7585	0.7585	2.0000e-005	2.0000e-005	0.7640
Total	**2.4000e-004**	**1.6000e-004**	**2.5100e-003**	**1.0000e-005**	**1.1000e-003**	**1.0000e-005**	**1.1000e-003**	**2.9000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**0.7585**	**0.7585**	**2.0000e-005**	**2.0000e-005**	**0.7640**

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					0.0203	0.0000	0.0203	0.0112	0.0000	0.0112	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4700e-003	8.5300e-003	0.0517	1.0000e-004		3.1000e-004	3.1000e-004		3.0000e-004	3.0000e-004	0.0000	8.3667	8.3667	2.7100e-003	0.0000	8.4344
Total	**1.4700e-003**	**8.5300e-003**	**0.0517**	**1.0000e-004**	**0.0203**	**3.1000e-004**	**0.0206**	**0.0112**	**3.0000e-004**	**0.0115**	**0.0000**	**8.3667**	**8.3667**	**2.7100e-003**	**0.0000**	**8.4344**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 AWPFSiteprep - 2027

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	2.4000e-004	1.6000e-004	2.5100e-003	1.0000e-005	8.6000e-004	1.0000e-005	8.6000e-004	2.3000e-004	0.0000	2.4000e-004	0.0000	0.7585	0.7585	2.0000e-005	2.0000e-005	0.7640
Total	**2.4000e-004**	**1.6000e-004**	**2.5100e-003**	**1.0000e-005**	**8.6000e-004**	**1.0000e-005**	**8.6000e-004**	**2.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**0.7585**	**0.7585**	**2.0000e-005**	**2.0000e-005**	**0.7640**

3.8 Pipelines27 - 2027

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					0.5988	0.0000	0.5988	0.3280	0.0000	0.3280	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1586	1.4383	1.3081	2.6700e-003		0.0625	0.0625		0.0585	0.0585	0.0000	232.4422	232.4422	0.0572	0.0000	233.8721
Total	**0.1586**	**1.4383**	**1.3081**	**2.6700e-003**	**0.5988**	**0.0625**	**0.6613**	**0.3280**	**0.0585**	**0.3865**	**0.0000**	**232.4422**	**232.4422**	**0.0572**	**0.0000**	**233.8721**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Pipelines27 - 2027

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	9.8000e-004	0.0777	0.0191	3.4000e-004	0.0114	5.7000e-004	0.0119	3.1100e-003	5.4000e-004	3.6600e-003	0.0000	34.6592	34.6592	2.3400e-003	5.5200e-003	36.3628
Vendor	1.8500e-003	0.1094	0.0242	6.0000e-004	0.0240	7.6000e-004	0.0248	6.9300e-003	7.3000e-004	7.6600e-003	0.0000	59.4476	59.4476	2.3700e-003	8.6200e-003	62.0748
Worker	9.4700e-003	6.8800e-003	0.1127	4.1000e-004	0.0551	2.4000e-004	0.0554	0.0146	2.2000e-004	0.0149	0.0000	37.6570	37.6570	5.0000e-004	7.2000e-004	37.8848
Total	**0.0123**	**0.1939**	**0.1560**	**1.3500e-003**	**0.0905**	**1.5700e-003**	**0.0921**	**0.0247**	**1.4900e-003**	**0.0262**	**0.0000**	**131.7637**	**131.7637**	**5.2100e-003**	**0.0149**	**136.3224**

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					0.2695	0.0000	0.2695	0.1476	0.0000	0.1476	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0387	0.2440	1.4846	2.6700e-003		7.4100e-003	7.4100e-003		7.1800e-003	7.1800e-003	0.0000	232.4420	232.4420	0.0572	0.0000	233.8718
Total	**0.0387**	**0.2440**	**1.4846**	**2.6700e-003**	**0.2695**	**7.4100e-003**	**0.2769**	**0.1476**	**7.1800e-003**	**0.1548**	**0.0000**	**232.4420**	**232.4420**	**0.0572**	**0.0000**	**233.8718**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Pipelines27 - 2027

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	9.8000e-004	0.0777	0.0191	3.4000e-004	9.2100e-003	5.7000e-004	9.7800e-003	2.5900e-003	5.4000e-004	3.1300e-003	0.0000	34.6592	34.6592	2.3400e-003	5.5200e-003	36.3628
Vendor	1.8500e-003	0.1094	0.0242	6.0000e-004	0.0198	7.6000e-004	0.0205	5.8800e-003	7.3000e-004	6.6100e-003	0.0000	59.4476	59.4476	2.3700e-003	8.6200e-003	62.0748
Worker	9.4700e-003	6.8800e-003	0.1127	4.1000e-004	0.0432	2.4000e-004	0.0434	0.0117	2.2000e-004	0.0119	0.0000	37.6570	37.6570	5.0000e-004	7.2000e-004	37.8848
Total	**0.0123**	**0.1939**	**0.1560**	**1.3500e-003**	**0.0722**	**1.5700e-003**	**0.0737**	**0.0202**	**1.4900e-003**	**0.0217**	**0.0000**	**131.7637**	**131.7637**	**5.2100e-003**	**0.0149**	**136.3224**

3.9 PumpStationsGrading - 2027

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					0.7869	0.0000	0.7869	0.4321	0.0000	0.4321	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1553	1.6214	1.1084	2.6900e-003		0.0647	0.0647		0.0596	0.0596	0.0000	236.2777	236.2777	0.0764	0.0000	238.1881
Total	**0.1553**	**1.6214**	**1.1084**	**2.6900e-003**	**0.7869**	**0.0647**	**0.8517**	**0.4321**	**0.0596**	**0.4917**	**0.0000**	**236.2777**	**236.2777**	**0.0764**	**0.0000**	**238.1881**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.9 PumpStationsGrading - 2027

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	2.6400e-003	0.1385	0.0355	7.3000e-004	0.0285	9.1000e-004	0.0295	8.2300e-003	8.7000e-004	9.0900e-003	0.0000	71.5543	71.5543	2.8500e-003	0.0104	74.7210
Worker	3.1600e-003	2.0800e-003	0.0328	1.1000e-004	0.0143	7.0000e-005	0.0144	3.8000e-003	6.0000e-005	3.8600e-003	0.0000	9.8981	9.8981	2.0000e-004	2.2000e-004	9.9699
Total	**5.8000e-003**	**0.1406**	**0.0683**	**8.4000e-004**	**0.0429**	**9.8000e-004**	**0.0438**	**0.0120**	**9.3000e-004**	**0.0130**	**0.0000**	**81.4523**	**81.4523**	**3.0500e-003**	**0.0106**	**84.6909**

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					0.3541	0.0000	0.3541	0.1944	0.0000	0.1944	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0385	0.2070	1.4153	2.6900e-003		7.2200e-003	7.2200e-003		6.9800e-003	6.9800e-003	0.0000	236.2774	236.2774	0.0764	0.0000	238.1878
Total	**0.0385**	**0.2070**	**1.4153**	**2.6900e-003**	**0.3541**	**7.2200e-003**	**0.3613**	**0.1944**	**6.9800e-003**	**0.2014**	**0.0000**	**236.2774**	**236.2774**	**0.0764**	**0.0000**	**238.1878**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.9 PumpStationsGrading - 2027

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	2.6400e-003	0.1385	0.0355	7.3000e-004	0.0235	9.1000e-004	0.0244	6.9800e-003	8.7000e-004	7.8500e-003	0.0000	71.5543	71.5543	2.8500e-003	0.0104	74.7210
Worker	3.1600e-003	2.0800e-003	0.0328	1.1000e-004	0.0112	7.0000e-005	0.0113	3.0400e-003	6.0000e-005	3.1000e-003	0.0000	9.8981	9.8981	2.0000e-004	2.2000e-004	9.9699
Total	**5.8000e-003**	**0.1406**	**0.0683**	**8.4000e-004**	**0.0347**	**9.8000e-004**	**0.0357**	**0.0100**	**9.3000e-004**	**0.0110**	**0.0000**	**81.4523**	**81.4523**	**3.0500e-003**	**0.0106**	**84.6909**

3.10 PumpStationsConstruct - 2027

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	0.0577	0.5219	0.5860	1.0500e-003		0.0214	0.0214		0.0199	0.0199	0.0000	89.8826	89.8826	0.0263	0.0000	90.5392
Total	**0.0577**	**0.5219**	**0.5860**	**1.0500e-003**		**0.0214**	**0.0214**		**0.0199**	**0.0199**	**0.0000**	**89.8826**	**89.8826**	**0.0263**	**0.0000**	**90.5392**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.10 PumpStationsConstruct - 2027

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	6.6900e-003	4.8600e-003	0.0796	2.9000e-004	0.0389	1.7000e-004	0.0391	0.0103	1.6000e-004	0.0105	0.0000	26.5922	26.5922	3.5000e-004	5.1000e-004	26.7531
Total	**6.6900e-003**	**4.8600e-003**	**0.0796**	**2.9000e-004**	**0.0389**	**1.7000e-004**	**0.0391**	**0.0103**	**1.6000e-004**	**0.0105**	**0.0000**	**26.5922**	**26.5922**	**3.5000e-004**	**5.1000e-004**	**26.7531**

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	0.0152	0.1309	0.6450	1.0500e-003		2.4200e-003	2.4200e-003		2.3600e-003	2.3600e-003	0.0000	89.8825	89.8825	0.0263	0.0000	90.5391
Total	**0.0152**	**0.1309**	**0.6450**	**1.0500e-003**		**2.4200e-003**	**2.4200e-003**		**2.3600e-003**	**2.3600e-003**	**0.0000**	**89.8825**	**89.8825**	**0.0263**	**0.0000**	**90.5391**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.10 PumpStationsConstruct - 2027

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	6.6900e-003	4.8600e-003	0.0796	2.9000e-004	0.0305	1.7000e-004	0.0307	8.2700e-003	1.6000e-004	8.4200e-003	0.0000	26.5922	26.5922	3.5000e-004	5.1000e-004	26.7531
Total	**6.6900e-003**	**4.8600e-003**	**0.0796**	**2.9000e-004**	**0.0305**	**1.7000e-004**	**0.0307**	**8.2700e-003**	**1.6000e-004**	**8.4200e-003**	**0.0000**	**26.5922**	**26.5922**	**3.5000e-004**	**5.1000e-004**	**26.7531**

3.11 AWPFGrading - 2027

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					0.0267	0.0000	0.0267	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0900e-003	0.0613	0.0582	1.2000e-004		2.4900e-003	2.4900e-003		2.2900e-003	2.2900e-003	0.0000	10.4279	10.4279	3.3700e-003	0.0000	10.5122
Total	**6.0900e-003**	**0.0613**	**0.0582**	**1.2000e-004**	**0.0267**	**2.4900e-003**	**0.0292**	**0.0135**	**2.2900e-003**	**0.0158**	**0.0000**	**10.4279**	**10.4279**	**3.3700e-003**	**0.0000**	**10.5122**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.11 AWPFGrading - 2027

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	3.4000e-004	0.0199	4.4000e-003	1.1000e-004	4.3700e-003	1.4000e-004	4.5100e-003	1.2600e-003	1.3000e-004	1.3900e-003	0.0000	10.8087	10.8087	4.3000e-004	1.5700e-003	11.2863
Worker	3.9000e-004	2.5000e-004	4.0200e-003	1.0000e-005	1.7600e-003	1.0000e-005	1.7600e-003	4.7000e-004	1.0000e-005	4.7000e-004	0.0000	1.2136	1.2136	2.0000e-005	3.0000e-005	1.2224
Total	**7.3000e-004**	**0.0201**	**8.4200e-003**	**1.2000e-004**	**6.1300e-003**	**1.5000e-004**	**6.2700e-003**	**1.7300e-003**	**1.4000e-004**	**1.8600e-003**	**0.0000**	**12.0222**	**12.0222**	**4.5000e-004**	**1.6000e-003**	**12.5087**

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					0.0120	0.0000	0.0120	6.0900e-003	0.0000	6.0900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6800e-003	8.9200e-003	0.0705	1.2000e-004		3.1000e-004	3.1000e-004		3.0000e-004	3.0000e-004	0.0000	10.4279	10.4279	3.3700e-003	0.0000	10.5122
Total	**1.6800e-003**	**8.9200e-003**	**0.0705**	**1.2000e-004**	**0.0120**	**3.1000e-004**	**0.0123**	**6.0900e-003**	**3.0000e-004**	**6.3900e-003**	**0.0000**	**10.4279**	**10.4279**	**3.3700e-003**	**0.0000**	**10.5122**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.11 AWPFGrading - 2027

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	3.4000e-004	0.0199	4.4000e-003	1.1000e-004	3.5900e-003	1.4000e-004	3.7300e-003	1.0700e-003	1.3000e-004	1.2000e-003	0.0000	10.8087	10.8087	4.3000e-004	1.5700e-003	11.2863
Worker	3.9000e-004	2.5000e-004	4.0200e-003	1.0000e-005	1.3700e-003	1.0000e-005	1.3800e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.2136	1.2136	2.0000e-005	3.0000e-005	1.2224
Total	**7.3000e-004**	**0.0201**	**8.4200e-003**	**1.2000e-004**	**4.9600e-003**	**1.5000e-004**	**5.1100e-003**	**1.4400e-003**	**1.4000e-004**	**1.5800e-003**	**0.0000**	**12.0222**	**12.0222**	**4.5000e-004**	**1.6000e-003**	**12.5087**

3.12 AWPFConstruction - 2027

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	0.1573	1.4340	1.8497	3.1000e-003		0.0607	0.0607		0.0571	0.0571	0.0000	266.7074	266.7074	0.0627	0.0000	268.2747
Total	**0.1573**	**1.4340**	**1.8497**	**3.1000e-003**		**0.0607**	**0.0607**		**0.0571**	**0.0571**	**0.0000**	**266.7074**	**266.7074**	**0.0627**	**0.0000**	**268.2747**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.12 AWPFConstruction - 2027

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	9.6500e-003	0.5718	0.1265	3.1600e-003	0.1257	3.9700e-003	0.1296	0.0362	3.8000e-003	0.0400	0.0000	310.7486	310.7486	0.0124	0.0450	324.4818
Worker	0.0111	7.3300e-003	0.1156	3.8000e-004	0.0505	2.3000e-004	0.0507	0.0134	2.2000e-004	0.0136	0.0000	34.8898	34.8898	6.9000e-004	7.9000e-004	35.1428
Total	**0.0208**	**0.5791**	**0.2421**	**3.5400e-003**	**0.1761**	**4.2000e-003**	**0.1803**	**0.0496**	**4.0200e-003**	**0.0536**	**0.0000**	**345.6384**	**345.6384**	**0.0131**	**0.0458**	**359.6246**

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	0.0418	0.3047	1.9993	3.1000e-003		6.7100e-003	6.7100e-003		6.5700e-003	6.5700e-003	0.0000	266.7071	266.7071	0.0627	0.0000	268.2744
Total	**0.0418**	**0.3047**	**1.9993**	**3.1000e-003**		**6.7100e-003**	**6.7100e-003**		**6.5700e-003**	**6.5700e-003**	**0.0000**	**266.7071**	**266.7071**	**0.0627**	**0.0000**	**268.2744**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.12 AWPFConstruction - 2027

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	9.6500e-003	0.5718	0.1265	3.1600e-003	0.1034	3.9700e-003	0.1073	0.0307	3.8000e-003	0.0345	0.0000	310.7486	310.7486	0.0124	0.0450	324.4818
Worker	0.0111	7.3300e-003	0.1156	3.8000e-004	0.0395	2.3000e-004	0.0398	0.0107	2.2000e-004	0.0109	0.0000	34.8898	34.8898	6.9000e-004	7.9000e-004	35.1428
Total	**0.0208**	**0.5791**	**0.2421**	**3.5400e-003**	**0.1429**	**4.2000e-003**	**0.1471**	**0.0415**	**4.0200e-003**	**0.0455**	**0.0000**	**345.6384**	**345.6384**	**0.0131**	**0.0458**	**359.6246**

3.13 WellheadGrading - 2027

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					3.1800e-003	0.0000	3.1800e-003	3.4000e-004	0.0000	3.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.6300e-003	0.0919	0.0908	1.9000e-004		3.2900e-003	3.2900e-003		3.0300e-003	3.0300e-003	0.0000	16.9329	16.9329	5.4800e-003	0.0000	17.0698
Total	**8.6300e-003**	**0.0919**	**0.0908**	**1.9000e-004**	**3.1800e-003**	**3.2900e-003**	**6.4700e-003**	**3.4000e-004**	**3.0300e-003**	**3.3700e-003**	**0.0000**	**16.9329**	**16.9329**	**5.4800e-003**	**0.0000**	**17.0698**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.13 WellheadGrading - 2027

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	4.8000e-004	3.2000e-004	5.0200e-003	2.0000e-005	2.1900e-003	1.0000e-005	2.2000e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	1.5170	1.5170	3.0000e-005	3.0000e-005	1.5280
Total	**4.8000e-004**	**3.2000e-004**	**5.0200e-003**	**2.0000e-005**	**2.1900e-003**	**1.0000e-005**	**2.2000e-003**	**5.8000e-004**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**1.5170**	**1.5170**	**3.0000e-005**	**3.0000e-005**	**1.5280**

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					1.4300e-003	0.0000	1.4300e-003	1.5000e-004	0.0000	1.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5300e-003	0.0123	0.1147	1.9000e-004		4.0000e-004	4.0000e-004		3.9000e-004	3.9000e-004	0.0000	16.9328	16.9328	5.4800e-003	0.0000	17.0697
Total	**2.5300e-003**	**0.0123**	**0.1147**	**1.9000e-004**	**1.4300e-003**	**4.0000e-004**	**1.8300e-003**	**1.5000e-004**	**3.9000e-004**	**5.4000e-004**	**0.0000**	**16.9328**	**16.9328**	**5.4800e-003**	**0.0000**	**17.0697**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.13 WellheadGrading - 2027

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	4.8000e-004	3.2000e-004	5.0200e-003	2.0000e-005	1.7200e-003	1.0000e-005	1.7300e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.5170	1.5170	3.0000e-005	3.0000e-005	1.5280
Total	**4.8000e-004**	**3.2000e-004**	**5.0200e-003**	**2.0000e-005**	**1.7200e-003**	**1.0000e-005**	**1.7300e-003**	**4.7000e-004**	**1.0000e-005**	**4.8000e-004**	**0.0000**	**1.5170**	**1.5170**	**3.0000e-005**	**3.0000e-005**	**1.5280**

3.14 WellheadConstruct - 2027

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	0.1332	1.2199	1.5514	2.6700e-003		0.0501	0.0501		0.0472	0.0472	0.0000	229.5305	229.5305	0.0536	0.0000	230.8715
Total	**0.1332**	**1.2199**	**1.5514**	**2.6700e-003**		**0.0501**	**0.0501**		**0.0472**	**0.0472**	**0.0000**	**229.5305**	**229.5305**	**0.0536**	**0.0000**	**230.8715**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.14 WellheadConstruct - 2027

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	5.6200e-003	0.3331	0.0737	1.8400e-003	0.0732	2.3100e-003	0.0755	0.0211	2.2100e-003	0.0233	0.0000	181.0448	181.0448	7.2300e-003	0.0262	189.0459
Worker	6.0000e-003	4.1000e-003	0.0656	2.2000e-004	0.0300	1.4000e-004	0.0301	7.9700e-003	1.3000e-004	8.0900e-003	0.0000	20.6318	20.6318	3.5000e-004	4.4000e-004	20.7711
Total	**0.0116**	**0.3372**	**0.1393**	**2.0600e-003**	**0.1032**	**2.4500e-003**	**0.1057**	**0.0291**	**2.3400e-003**	**0.0314**	**0.0000**	**201.6766**	**201.6766**	**7.5800e-003**	**0.0267**	**209.8170**

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	0.0364	0.2685	1.6922	2.6700e-003		5.9800e-003	5.9800e-003		5.8500e-003	5.8500e-003	0.0000	229.5302	229.5302	0.0536	0.0000	230.8712
Total	**0.0364**	**0.2685**	**1.6922**	**2.6700e-003**		**5.9800e-003**	**5.9800e-003**		**5.8500e-003**	**5.8500e-003**	**0.0000**	**229.5302**	**229.5302**	**0.0536**	**0.0000**	**230.8712**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.14 WellheadConstruct - 2027

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	5.6200e-003	0.3331	0.0737	1.8400e-003	0.0602	2.3100e-003	0.0625	0.0179	2.2100e-003	0.0201	0.0000	181.0448	181.0448	7.2300e-003	0.0262	189.0459
Worker	6.0000e-003	4.1000e-003	0.0656	2.2000e-004	0.0235	1.4000e-004	0.0236	6.3700e-003	1.3000e-004	6.5000e-003	0.0000	20.6318	20.6318	3.5000e-004	4.4000e-004	20.7711
Total	**0.0116**	**0.3372**	**0.1393**	**2.0600e-003**	**0.0837**	**2.4500e-003**	**0.0862**	**0.0243**	**2.3400e-003**	**0.0266**	**0.0000**	**201.6766**	**201.6766**	**7.5800e-003**	**0.0267**	**209.8170**

3.15 StorageResGrading - 2027

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					0.0322	0.0000	0.0322	0.0168	0.0000	0.0168	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6100e-003	0.0766	0.0727	1.5000e-004		3.1200e-003	3.1200e-003		2.8700e-003	2.8700e-003	0.0000	13.0349	13.0349	4.2200e-003	0.0000	13.1403
Total	**7.6100e-003**	**0.0766**	**0.0727**	**1.5000e-004**	**0.0322**	**3.1200e-003**	**0.0354**	**0.0168**	**2.8700e-003**	**0.0197**	**0.0000**	**13.0349**	**13.0349**	**4.2200e-003**	**0.0000**	**13.1403**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.15 StorageResGrading - 2027

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	1.0400e-003	0.0869	0.0207	3.9000e-004	0.0129	6.4000e-004	0.0135	3.5400e-003	6.1000e-004	4.1500e-003	0.0000	39.2127	39.2127	2.6500e-003	6.2500e-003	41.1404
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	3.6000e-004	2.4000e-004	3.9200e-003	1.0000e-005	1.7900e-003	1.0000e-005	1.8000e-003	4.8000e-004	1.0000e-005	4.8000e-004	0.0000	1.2318	1.2318	2.0000e-005	3.0000e-005	1.2401
Total	**1.4000e-003**	**0.0872**	**0.0246**	**4.0000e-004**	**0.0147**	**6.5000e-004**	**0.0153**	**4.0200e-003**	**6.2000e-004**	**4.6300e-003**	**0.0000**	**40.4444**	**40.4444**	**2.6700e-003**	**6.2800e-003**	**42.3804**

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					0.0145	0.0000	0.0145	7.5500e-003	0.0000	7.5500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1100e-003	0.0112	0.0882	1.5000e-004		3.9000e-004	3.9000e-004		3.8000e-004	3.8000e-004	0.0000	13.0349	13.0349	4.2200e-003	0.0000	13.1403
Total	**2.1100e-003**	**0.0112**	**0.0882**	**1.5000e-004**	**0.0145**	**3.9000e-004**	**0.0149**	**7.5500e-003**	**3.8000e-004**	**7.9300e-003**	**0.0000**	**13.0349**	**13.0349**	**4.2200e-003**	**0.0000**	**13.1403**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.15 StorageResGrading - 2027

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	1.0400e-003	0.0869	0.0207	3.9000e-004	0.0105	6.4000e-004	0.0111	2.9400e-003	6.1000e-004	3.5600e-003	0.0000	39.2127	39.2127	2.6500e-003	6.2500e-003	41.1404
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	3.6000e-004	2.4000e-004	3.9200e-003	1.0000e-005	1.4000e-003	1.0000e-005	1.4100e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2318	1.2318	2.0000e-005	3.0000e-005	1.2401
Total	**1.4000e-003**	**0.0872**	**0.0246**	**4.0000e-004**	**0.0119**	**6.5000e-004**	**0.0125**	**3.3200e-003**	**6.2000e-004**	**3.9500e-003**	**0.0000**	**40.4444**	**40.4444**	**2.6700e-003**	**6.2800e-003**	**42.3804**

3.16 StorageResConstruct - 2027

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	0.0513	0.4676	0.6032	1.0100e-003		0.0198	0.0198		0.0186	0.0186	0.0000	86.9698	86.9698	0.0204	0.0000	87.4809
Total	**0.0513**	**0.4676**	**0.6032**	**1.0100e-003**		**0.0198**	**0.0198**		**0.0186**	**0.0186**	**0.0000**	**86.9698**	**86.9698**	**0.0204**	**0.0000**	**87.4809**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.16 StorageResConstruct - 2027

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	2.6900e-003	1.8400e-003	0.0294	1.0000e-004	0.0134	6.0000e-005	0.0135	3.5700e-003	6.0000e-005	3.6200e-003	0.0000	9.2381	9.2381	1.6000e-004	2.0000e-004	9.3005
Total	**2.6900e-003**	**1.8400e-003**	**0.0294**	**1.0000e-004**	**0.0134**	**6.0000e-005**	**0.0135**	**3.5700e-003**	**6.0000e-005**	**3.6200e-003**	**0.0000**	**9.2381**	**9.2381**	**1.6000e-004**	**2.0000e-004**	**9.3005**

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	0.0136	0.0994	0.6519	1.0100e-003		2.1900e-003	2.1900e-003		2.1400e-003	2.1400e-003	0.0000	86.9697	86.9697	0.0204	0.0000	87.4808
Total	**0.0136**	**0.0994**	**0.6519**	**1.0100e-003**		**2.1900e-003**	**2.1900e-003**		**2.1400e-003**	**2.1400e-003**	**0.0000**	**86.9697**	**86.9697**	**0.0204**	**0.0000**	**87.4808**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.16 StorageResConstruct - 2027

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	2.6900e-003	1.8400e-003	0.0294	1.0000e-004	0.0105	6.0000e-005	0.0106	2.8500e-003	6.0000e-005	2.9100e-003	0.0000	9.2381	9.2381	1.6000e-004	2.0000e-004	9.3005
Total	**2.6900e-003**	**1.8400e-003**	**0.0294**	**1.0000e-004**	**0.0105**	**6.0000e-005**	**0.0106**	**2.8500e-003**	**6.0000e-005**	**2.9100e-003**	**0.0000**	**9.2381**	**9.2381**	**1.6000e-004**	**2.0000e-004**	**9.3005**

3.17 StorageResPaving - 2027

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	4.1000e-003	0.0377	0.0609	9.0000e-005		1.7600e-003	1.7600e-003		1.6300e-003	1.6300e-003	0.0000	8.1891	8.1891	2.5700e-003	0.0000	8.2535
Paving	0.0318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0359**	**0.0377**	**0.0609**	**9.0000e-005**		**1.7600e-003**	**1.7600e-003**		**1.6300e-003**	**1.6300e-003**	**0.0000**	**8.1891**	**8.1891**	**2.5700e-003**	**0.0000**	**8.2535**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.17 StorageResPaving - 2027

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	3.6000e-004	2.4000e-004	3.9200e-003	1.0000e-005	1.7900e-003	1.0000e-005	1.8000e-003	4.8000e-004	1.0000e-005	4.8000e-004	0.0000	1.2318	1.2318	2.0000e-005	3.0000e-005	1.2401
Total	**3.6000e-004**	**2.4000e-004**	**3.9200e-003**	**1.0000e-005**	**1.7900e-003**	**1.0000e-005**	**1.8000e-003**	**4.8000e-004**	**1.0000e-005**	**4.8000e-004**	**0.0000**	**1.2318**	**1.2318**	**2.0000e-005**	**3.0000e-005**	**1.2401**

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	1.2200e-003	6.1600e-003	0.0673	9.0000e-005		2.2000e-004	2.2000e-004		2.1000e-004	2.1000e-004	0.0000	8.1891	8.1891	2.5700e-003	0.0000	8.2534
Paving	0.0318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0330**	**6.1600e-003**	**0.0673**	**9.0000e-005**		**2.2000e-004**	**2.2000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**8.1891**	**8.1891**	**2.5700e-003**	**0.0000**	**8.2534**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.17 StorageResPaving - 2027

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	3.6000e-004	2.4000e-004	3.9200e-003	1.0000e-005	1.4000e-003	1.0000e-005	1.4100e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2318	1.2318	2.0000e-005	3.0000e-005	1.2401
Total	**3.6000e-004**	**2.4000e-004**	**3.9200e-003**	**1.0000e-005**	**1.4000e-003**	**1.0000e-005**	**1.4100e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2318**	**1.2318**	**2.0000e-005**	**3.0000e-005**	**1.2401**

3.18 WellheadPaving - 2027

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	7.4700e-003	0.0681	0.1125	1.8000e-004		3.2900e-003	3.2900e-003		3.0300e-003	3.0300e-003	0.0000	15.4836	15.4836	4.9000e-003	0.0000	15.6063
Paving	0.0318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0392**	**0.0681**	**0.1125**	**1.8000e-004**		**3.2900e-003**	**3.2900e-003**		**3.0300e-003**	**3.0300e-003**	**0.0000**	**15.4836**	**15.4836**	**4.9000e-003**	**0.0000**	**15.6063**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.18 WellheadPaving - 2027

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	6.0000e-004	4.1000e-004	6.5300e-003	2.0000e-005	2.9800e-003	1.0000e-005	3.0000e-003	7.9000e-004	1.0000e-005	8.1000e-004	0.0000	2.0529	2.0529	4.0000e-005	4.0000e-005	2.0668
Total	**6.0000e-004**	**4.1000e-004**	**6.5300e-003**	**2.0000e-005**	**2.9800e-003**	**1.0000e-005**	**3.0000e-003**	**7.9000e-004**	**1.0000e-005**	**8.1000e-004**	**0.0000**	**2.0529**	**2.0529**	**4.0000e-005**	**4.0000e-005**	**2.0668**

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	2.3300e-003	0.0115	0.1293	1.8000e-004		4.0000e-004	4.0000e-004		3.9000e-004	3.9000e-004	0.0000	15.4836	15.4836	4.9000e-003	0.0000	15.6062
Paving	0.0318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0341**	**0.0115**	**0.1293**	**1.8000e-004**		**4.0000e-004**	**4.0000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**15.4836**	**15.4836**	**4.9000e-003**	**0.0000**	**15.6062**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.18 WellheadPaving - 2027

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	6.0000e-004	4.1000e-004	6.5300e-003	2.0000e-005	2.3400e-003	1.0000e-005	2.3500e-003	6.3000e-004	1.0000e-005	6.5000e-004	0.0000	2.0529	2.0529	4.0000e-005	4.0000e-005	2.0668
Total	**6.0000e-004**	**4.1000e-004**	**6.5300e-003**	**2.0000e-005**	**2.3400e-003**	**1.0000e-005**	**2.3500e-003**	**6.3000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**2.0529**	**2.0529**	**4.0000e-005**	**4.0000e-005**	**2.0668**

3.19 AWPFPaving - 2027

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	7.6500e-003	0.0695	0.1110	1.7000e-004		3.2400e-003	3.2400e-003		3.0000e-003	3.0000e-003	0.0000	14.9516	14.9516	4.6500e-003	0.0000	15.0679
Paving	0.0318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0394**	**0.0695**	**0.1110**	**1.7000e-004**		**3.2400e-003**	**3.2400e-003**		**3.0000e-003**	**3.0000e-003**	**0.0000**	**14.9516**	**14.9516**	**4.6500e-003**	**0.0000**	**15.0679**

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.19 AWPFPaving - 2027

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	8.7000e-004	5.7000e-004	9.0400e-003	3.0000e-005	3.9500e-003	2.0000e-005	3.9700e-003	1.0500e-003	2.0000e-005	1.0700e-003	0.0000	2.7305	2.7305	5.0000e-005	6.0000e-005	2.7503
Total	**8.7000e-004**	**5.7000e-004**	**9.0400e-003**	**3.0000e-005**	**3.9500e-003**	**2.0000e-005**	**3.9700e-003**	**1.0500e-003**	**2.0000e-005**	**1.0700e-003**	**0.0000**	**2.7305**	**2.7305**	**5.0000e-005**	**6.0000e-005**	**2.7503**

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	2.2100e-003	0.0112	0.1213	1.7000e-004		3.9000e-004	3.9000e-004		3.8000e-004	3.8000e-004	0.0000	14.9515	14.9515	4.6500e-003	0.0000	15.0679
Paving	0.0318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0340**	**0.0112**	**0.1213**	**1.7000e-004**		**3.9000e-004**	**3.9000e-004**		**3.8000e-004**	**3.8000e-004**	**0.0000**	**14.9515**	**14.9515**	**4.6500e-003**	**0.0000**	**15.0679**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.19 AWPFPaving - 2027

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	8.7000e-004	5.7000e-004	9.0400e-003	3.0000e-005	3.0900e-003	2.0000e-005	3.1100e-003	8.4000e-004	2.0000e-005	8.6000e-004	0.0000	2.7305	2.7305	5.0000e-005	6.0000e-005	2.7503
Total	**8.7000e-004**	**5.7000e-004**	**9.0400e-003**	**3.0000e-005**	**3.0900e-003**	**2.0000e-005**	**3.1100e-003**	**8.4000e-004**	**2.0000e-005**	**8.6000e-004**	**0.0000**	**2.7305**	**2.7305**	**5.0000e-005**	**6.0000e-005**	**2.7503**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Chino Basin Program - Construction - South Coast Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	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 Asphalt Surfaces	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	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 Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.540005	0.063885	0.187129	0.126392	0.023842	0.006753	0.012641	0.008546	0.000821	0.000486	0.025267	0.000753	0.003480
Refrigerated Warehouse-No Rail	0.540005	0.063885	0.187129	0.126392	0.023842	0.006753	0.012641	0.008546	0.000821	0.000486	0.025267	0.000753	0.003480

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unrefrigerated Warehouse-No Rail	0.540005	0.063885	0.187129	0.126392	0.023842	0.006753	0.012641	0.008546	0.000821	0.000486	0.025267	0.000753	0.003480

5.0 Energy Detail

Historical Energy Use: N

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	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	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	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	tons/yr										MT/yr					
Other 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	0.0000
Refrigerated Warehouse-No Rail	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	0.0000
Unrefrigerated Warehouse-No Rail	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	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**	**0.0000**

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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	tons/yr										MT/yr					
Other 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	0.0000
Refrigerated Warehouse-No Rail	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	0.0000
Unrefrigerated Warehouse-No Rail	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	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**	**0.0000**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	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	5.5499	0.0000	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	5.5499	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.5499					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	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	**5.5499**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.5499					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	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	**5.5499**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.0 Water Detail

7.1 Mitigation Measures Water

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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 Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

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