

Air Quality and Greenhouse Gases

R-C1 – Air Quality and Greenhouse Gases Technical Memorandum

APPENDIX R-C

Air Quality and Greenhouse Gases

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APPENDIX R-C: AIR QUALITY

1.0 Emissions Inventory

This section of Appendix R-C presents the overall data, assumptions, and methodology for preparing the criteria pollutant emissions inventory in support of the air quality impacts assessment for the proposed San Diego International Airport (SDIA) Airport Development Plan (ADP). The emissions inventories were prepared for the existing/baseline year (2018) and future years (2024, 2026, 2030, 2035) for Alternative 1 (No Project), the proposed project, and Alternative 4 using the best available data at the time of the analysis. Emissions were also calculated for the year 2050 as a long-term analysis year that coincides with the planning horizon year in the *San Diego Forward: The Regional Plan / 2015-2050*. The year 2050 emissions inventory is subject to additional uncertainty as compared to the less distant future analyses due to the influences of technological advancements in transportation, as well as the influence of evolving political and economic climates.

The emissions inventories were prepared for volatile organic compounds (VOC), nitrogen oxides (NO_x), particulate matter less than 10 micrometers in diameter (PM₁₀), particulate matter less than 2.5 micrometers in diameter (PM_{2.5}), carbon monoxide (CO), and sulfur oxides (SO_x). The operational and construction air dispersion analysis was prepared for VOC, nitrogen dioxide (NO₂), PM₁₀, PM_{2.5}, CO, sulfur dioxide (SO₂). Dispersion analysis was not performed to evaluate levels of O₃. The complexity of O₃ formation and the health implications of O₃ warrants evaluation on a regional basis using a regional model and cannot be meaningfully addressed on a project-specific level.

As stated above, the air quality analysis was performed for the existing/baseline condition (2018) and future years with Alternative 1 (No Project), the proposed project, and Alternative 4. The emissions estimates for Alternatives 2 and 3 (presented in Chapter 5 - Alternatives Analysis) were estimated/derived as follows:

- Alternative 2 – With Alternative 2, there would be no demolition of, replacement of, or additions to the existing T1 and T2, but there would be development of a new terminal east of T1. As such, Alternative 2 would involve much less construction than the proposed project. For the purpose of preparing emission estimates for Alternative 2, it was assumed that development would occur within the same timeframe as Phase 1a of the proposed project. The construction intensity of Alternative 2 would be approximately 59 percent of that associated with the proposed project in the same phase (i.e., 5,644,500 square feet of demolition/construction under Alternative 2 compared to 9,634,800 square feet for the proposed project in Phase 1a). There would be no demolition or construction associated with Alternative 2 in Phases 1b, 2a, and 2b. With respect to emissions associated with airport operation, emissions and concentrations with Alternative 2 would be essentially the same as those of the proposed project. This is because the future aircraft and passenger activity levels, and key improvements such as the provision of additional gates and development of the new on-airport access road, would be comparable under both scenarios.
- Alternative 3 - Alternative 3 would provide the same nature and amount of development as the proposed project but would be phased differently. Based on the comparative differences in construction intensity, as defined by the combination of demolition and construction, the total demolition/construction associated with Alternative 3 compared to the proposed project would be approximately:

- Phase 1a (2022/2024) - 23 percent of emissions estimated for the proposed project;
- Phase 1b (2026) - 209 percent of emissions estimated for the proposed project;
- Phase 2a (2030) - 209 percent of emissions estimated for the proposed project; and
- Phase 2b (2035) - 100 percent of emission estimated for the proposed project.

The air pollutant emissions and concentrations associated with operations under Alternative 3 would also be comparable to those of the proposed project. This is because the future aircraft and passenger activity levels, and key improvements such as the provision of additional gates and development of the new on-airport access road, would be the same under both scenarios, and those type of improvements have similar implications relative to operations-related air quality impacts; however, the phasing of those improvements would result in slight differences in the early phases of the project.

The following sections of this Appendix provide a detailed discussion of the methodologies used to prepare the air quality analysis and, by emission source, presents the computer model/calculation input data and assumptions.

1.1 Aircraft

The aircraft-related emission inventories were prepared using the Federal Aviation Administration's (FAA's) Aviation Environmental Design Tool (AEDT) version 2d, by factoring total aircraft operational activity against a database of aircraft/engine-specific emission factors based on engine manufacturer, model, and aircraft operational mode within the landing/takeoff (LTO) cycle. For the purposes of emissions inventory, an LTO cycle consists of the following operational modes:

- *Approach*: The airborne segment of an aircraft's arrival extending from the start of the flight profile (or the mixing height) to touchdown on the runway;
- *Taxi In*: The landing ground roll segment (from touchdown to the runway exit) of an arriving aircraft, including reverse thrust, and the taxiing from the runway exit to a gate;
- *Startup*: Aircraft main engine startup (for VOC only) occurs at the gate and is considered in AEDT for ICAO certified engines only;
- *Taxi Out*: The taxiing from the gate to a runway end;
- *Takeoff*: The portion from the start of the ground roll on the runway, through wheels off, and the airborne portion of the ascent up to cutback during which the aircraft operates at maximum thrust; and
- *Climb Out*: The portion from engine cutback to the end of the flight profile or the mixing height. The "mixing height" is defined as the vertical extent in the atmosphere over which pollutants no longer mix downward to ground level.

AEDT's calculation of emissions within the LTO relies on aircraft fleet, operations, and time within each mode of the LTO cycle.

1.1.1 Fleet and Operations

AEDT requires definition of an aircraft fleet (i.e., the types of aircraft using the airport and their assigned engines) and a level of operations (i.e., either arrivals/departures or LTOs) assigned to each member of the aircraft fleet. AEDT can accept varying levels of detail depending on the extent to which aircraft operational parameters at a given airport are available or known.

For this analysis, aircraft activity (i.e., aircraft arrival and departure operations), mode data (i.e., taxi and delay times) as well as airframe engine assignments were based on results from airport and airspace simulation models (SIMMOD), gate schedules, the SDIA ADP forecast, and AEDT defaults. The aircraft fleet/operational level data used in the air quality analysis are consistent with those used to assess noise impacts with the proposed project and alternatives. **Tables C-1** through **C-6** contain the listing of annual aircraft operations (by category, aircraft, engine, operation type, and stage length) for existing/baseline conditions (2018) and future conditions (2024 2026, 2030, 2035, and 2050) with the No Project Alternative, the proposed project, and the evaluated alternatives. Notably, future year operational levels do not change (increase of operations or fleet mix) between project alternatives in each of the evaluated years, as projected aircraft activity levels would be constant across the proposed project and alternatives.

Table C-1 Annual Aircraft Operations for 2018 Existing/Baseline Condition

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Bombardier CS-100	365	A	PW1524G	5301	1
Passenger	Narrowbody	Airbus A319-100 Series	1,095	A	V2524-A5	4850	1
Passenger	Narrowbody	Airbus A320-200 Series	6,570	A	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A320-NEO	1,095	A	LEAP-1A26/26E1	5314	1
Passenger	Narrowbody	Airbus A321-100 Series	7,300	A	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Airbus A321-NEO	4,015	A	PW1133G-JM	5315	1
Passenger	Narrowbody	Boeing 717-200 Series	730	A	BR700-715A1-30	83	1
Passenger	Narrowbody	Boeing 737-800 MAX	365	A	LEAP-1A35A/AA/33B2/32/30	4129	1
Passenger	Narrowbody	Boeing 737-700 with winglets	29,565	A	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-800 Series	18,615	A	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-900-ER	9,125	A	CFM56-7B26E	4356	1
Passenger	Narrowbody	Boeing 757-200 Series	2,190	A	PW2037	385	1
Passenger	Widebody	Airbus A330-200 Series	365	A	Trent 772	1094	1
Passenger	Regional Jet	Bombardier CRJ-200	730	A	CF34-3B	1250	1
Passenger	Regional Jet	Bombardier CRJ-700	730	A	CF34-8C5B1	2546	1
Passenger	Regional Jet	Embraer ERJ175	13,140	A	CF34-8E5	1771	1
Passenger	Narrowbody	Airbus A321-100 Series	365	A	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Boeing 737-700 with winglets	730	A	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-800 Series	365	A	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-900-ER	365	A	CFM56-7B26E	4356	1
Passenger	Widebody	Boeing 777-200-ER	365	A	Trent 895	4213	1
Passenger	Widebody	B787-8R	365	A	Trent 1000 Pkg B T1000-A/01	3996	1
Passenger	Regional Jet	Bombardier CRJ-900	730	A	CF34-8C5B1	2426	1
Other Air Carrier	Narrowbody	Airbus A319-100 Series	730	A	V2524-A5	4850	1
Other Air Carrier	Narrowbody	Boeing 737-300 Series	1,095	A	CFM563	150	1
Other Air Carrier	Narrowbody	Boeing 737-700 with winglets	365	A	CFM56-7B27/3	4131	1
Other Air Carrier	Narrowbody	Boeing 757-200 Series	730	A	PW2037	385	1

Table C-1 Annual Aircraft Operations for 2018 Existing/Baseline Condition

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Other Air Carrier	Regional Jet	Bombardier CRJ-700	365	A	CF34-8C5B1	2546	1
Other Air Carrier	Regional Jet	Embraer ERJ190	365	A	CF34-10E5A1	2563	1
Cargo	Narrowbody	Boeing 757-200 Series	365	A	PW2037	385	1
Cargo	Widebody	Boeing 767-200 Series	1,825	A	JT9D-7R4D,-7R4D1	437	1
Cargo	Turboprop	Raytheon Beech 99	730	A	PT6A-27	1495	1
Cargo	Turboprop	Fairchild SA-226-TC Metro II	365	A	TPE331-11U-601G	3125	1
General Aviation	Business Jet multi-engine heavy	Cessna 560 Citation XLS	704	A	BIZMEDIUMJET_F	3634	1
General Aviation	Business Jet multi-engine heavy	Gulfstream G400	704	A	TAY611-8C	1916	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 300	939	A	HTF7350 (AS907-2-1A)	4856	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 350	469	A	HTF7350 (AS907-2-1A)	5345	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 600	469	A	CF34-3B	1237	1
General Aviation	Business Jet multi-engine light plus	Cessna 525B CitationJet	365	A	BIZLIGHTJET_F	3986	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	365	A	AE3007C2	4249	1
General Aviation	Business Jet multi-engine light plus	Embraer 500	365	A	BIZLIGHTJET_F	3988	1
General Aviation	Business Jet multi-engine light plus	Dassault Falcon 2000	365	A	PW308C Build Spec 1289	4804	1
General Aviation	Business Jet multi-engine light plus	Raytheon Hawker 800	365	A	TFE731-2/2A	3105	1
General Aviation	Single engine	Cessna 172 Skyhawk	243	A	TSIO-360C	3247	1
General Aviation	Single engine	Pilatus PC-12	487	A	PT6A-67B	1489	1
Military	Multi-engine turboprop	Raytheon Super King Air 200	365	A	PT6A-61	3034	1
Helicopter		Robinson R44 Raven / Lycoming O-540-F1B5	182	A	TIO-540-J2B2	3161	1
Passenger	Narrowbody	Airbus A319-100 Series	365	D	V2524-A5	4850	1
Passenger	Narrowbody	Airbus A319-100 Series	365	D	V2524-A5	4850	2

Table C-1 Annual Aircraft Operations for 2018 Existing/Baseline Condition

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Airbus A319-100 Series	365	D	V2524-A5	4850	3
Passenger	Narrowbody	Airbus A320-200 Series	1,825	D	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A320-200 Series	1,460	D	V2527-A5	1019	2
Passenger	Narrowbody	Airbus A320-200 Series	1,095	D	V2527-A5	1019	3
Passenger	Narrowbody	Airbus A320-200 Series	2,190	D	V2527-A5	1019	4
Passenger	Narrowbody	Airbus A320-NEO	730	D	LEAP-1A26/26E1	5314	1
Passenger	Narrowbody	Airbus A320-NEO	365	D	LEAP-1A26/26E1	5314	4
Passenger	Narrowbody	Airbus A321-100 Series	730	D	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Airbus A321-100 Series	730	D	CFM56-5B3/P	1031	2
Passenger	Narrowbody	Airbus A321-100 Series	1,460	D	CFM56-5B3/P	1031	3
Passenger	Narrowbody	Airbus A321-100 Series	4,380	D	CFM56-5B3/P	1031	4
Passenger	Narrowbody	Airbus A321-NEO	730	D	PW1133G-JM	5315	1
Passenger	Narrowbody	Airbus A321-NEO	3,285	D	PW1133G-JM	5315	3
Passenger	Narrowbody	Boeing 717-200 Series	365	D	BR700-715A1-30	83	1
Passenger	Narrowbody	Boeing 717-200 Series	730	D	BR700-715A1-30	83	2
Passenger	Narrowbody	Boeing 737-800 MAX	365	D	LEAP-1A35A/AA/33B2/32/30	4129	2
Passenger	Narrowbody	Boeing 737-700 with winglets	19,345	D	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-700 with winglets	5,110	D	CFM56-7B27/3	4131	2
Passenger	Narrowbody	Boeing 737-700 with winglets	3,285	D	CFM56-7B27/3	4131	3
Passenger	Narrowbody	Boeing 737-700 with winglets	1,825	D	CFM56-7B27/3	4131	4
Passenger	Narrowbody	Boeing 737-800 Series	5,110	D	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-800 Series	2,190	D	CFM56-7B26/3	2497	2
Passenger	Narrowbody	Boeing 737-800 Series	4,745	D	CFM56-7B26/3	2497	3
Passenger	Narrowbody	Boeing 737-800 Series	6,205	D	CFM56-7B26/3	2497	4
Passenger	Narrowbody	Boeing 737-900-ER	2,190	D	CFM56-7B26E	4356	1
Passenger	Narrowbody	Boeing 737-900-ER	3,285	D	CFM56-7B26E	4356	2
Passenger	Narrowbody	Boeing 737-900-ER	2,920	D	CFM56-7B26E	4356	3
Passenger	Narrowbody	Boeing 737-900-ER	1,095	D	CFM56-7B26E	4356	4

Table C-1 Annual Aircraft Operations for 2018 Existing/Baseline Condition

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Boeing 757-200 Series	365	D	PW2037	385	1
Passenger	Narrowbody	Boeing 757-200 Series	1,825	D	PW2037	385	4
Passenger	Widebody	Airbus A330-200 Series	365	D	Trent 772	1094	4
Passenger	Regional Jet	Bombardier CRJ-200	730	D	CF34-3B	1250	1
Passenger	Regional Jet	Bombardier CRJ-700	730	D	CF34-8C5B1	2546	1
Passenger	Regional Jet	Embraer ERJ175	9,125	D	CF34-8E5	1771	1
Passenger	Regional Jet	Embraer ERJ175	1,825	D	CF34-8E5	1771	2
Passenger	Regional Jet	Embraer ERJ175	2,190	D	CF34-8E5	1771	3
Passenger	Narrowbody	Airbus A321-100 Series	365	D	CFM56-5B3/P	1031	4
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	2
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	3
Passenger	Narrowbody	Boeing 737-800 Series	730	D	CFM56-7B26/3	2497	2
Passenger	Widebody	Boeing 777-200-ER	365	D	Trent 895	4213	7
Passenger	Widebody	B787-8R	365	D	Trent 1000 Pkg B T1000-A/01	3996	7
Passenger	Regional Jet	Bombardier CRJ-900	730	D	CF34-8C5B1	2426	3
Other Air Carrier	Narrowbody	Airbus A319-100 Series	730	D	V2524-A5	4850	4
Other Air Carrier	Narrowbody	Boeing 737-300 Series	365	D	CFM563	150	1
Other Air Carrier	Narrowbody	Boeing 737-300 Series	365	D	CFM563	150	2
Other Air Carrier	Narrowbody	Boeing 737-300 Series	365	D	CFM563	150	3
Other Air Carrier	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	7
Other Air Carrier	Narrowbody	Boeing 757-200 Series	365	D	PW2037	385	3
Other Air Carrier	Narrowbody	Boeing 757-200 Series	365	D	PW2037	385	7
Other Air Carrier	Regional Jet	Bombardier CRJ-700	365	D	CF34-8C5B1	2546	1
Other Air Carrier	Regional Jet	Embraer ERJ190	365	D	CF34-10E5A1	2563	1
Other Air Taxi	Business Jet multi-engine heavy	Gulfstream V-SP	365	D	BR700-710A1-10	2432	1
Cargo	Narrowbody	Boeing 757-200 Series	365	D	PW2037	385	5
Cargo	Widebody	Boeing 767-200 Series	1,095	D	JT9D-7R4D,-7R4D1	437	3
Cargo	Widebody	Boeing 767-200 Series	730	D	JT9D-7R4D,-7R4D1	437	4

Table C-1 Annual Aircraft Operations for 2018 Existing/Baseline Condition

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Cargo	Turboprop	Raytheon Beech 99	730	D	PT6A-27	1495	1
Cargo	Turboprop	Fairchild SA-226-TC Metro II	365	D	TPE331-11U-601G	3125	1
General Aviation	Business Jet multi-engine heavy	Cessna 560 Citation XLS	704	D	BIZMEDIUMJET_F	3634	1
General Aviation	Business Jet multi-engine heavy	Gulfstream G400	704	D	TAY611-8C	1916	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 300	939	D	HTF7350 (AS907-2-1A)	4856	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 350	469	D	HTF7350 (AS907-2-1A)	5345	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 600	469	D	CF34-3B	1237	1
General Aviation	Business Jet multi-engine light plus	Cessna 525B CitationJet	365	D	BIZLIGHTJET_F	3986	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	219	D	AE3007C2	4249	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	146	D	AE3007C2	4249	7
General Aviation	Business Jet multi-engine light plus	Embraer 500	365	D	BIZLIGHTJET_F	3988	1
General Aviation	Business Jet multi-engine light plus	Dassault Falcon 2000	365	D	PW308C Build Spec 1289	4804	1
General Aviation	Business Jet multi-engine light plus	Raytheon Hawker 800	365	D	TFE731-2/2A	3105	1
General Aviation	Single engine	Cessna 172 Skyhawk	122	D	TSIO-360C	3247	1
General Aviation	Single engine	Pilatus PC-12	243	D	PT6A-67B	1489	1
General Aviation	Multi-engine turboprop	Raytheon Super King Air 200	365	D	PT6A-61	3034	1
Military	Multi-engine turboprop	Raytheon Super King Air 200	365	D	PT6A-61	3034	1
Helicopter		Robinson R44 Raven / Lycoming O-540-F1B5	183	D	TIO-540-J2B2	3161	1
Total			225,570				

Table C-2 Annual Aircraft Operations for 2024

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Bombardier CS-100	730	A	PW1524G	5301	1
Passenger	Narrowbody	Bombardier CS-100	730	A	PW1524G	5301	1
Passenger	Narrowbody	Airbus A319-100 Series	1,825	A	V2524-A5	4850	1
Passenger	Narrowbody	Airbus A320-200 Series	8,760	A	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A320-NEO	1,825	A	LEAP-1A26/26E1	5314	1
Passenger	Narrowbody	Airbus A321-100 Series	9,490	A	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Airbus A321-NEO	5,475	A	PW1133G-JM	5315	1
Passenger	Narrowbody	Boeing 717-200 Series	730	A	BR700-715A1-30	83	1
Passenger	Narrowbody	Boeing 737-800 MAX	730	A	LEAP-1A35A/AA/33B2/32/30	4129	1
Passenger	Narrowbody	Boeing 737-700 with winglets	32,850	A	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-800 Series	22,265	A	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-900-ER	10,220	A	CFM56-7B26E	4356	1
Passenger	Narrowbody	Boeing 757-200 Series	2,555	A	PW2037	385	1
Passenger	Widebody	Airbus A330-200 Series	365	A	Trent 772	1094	1
Passenger	Regional Jet	Bombardier CRJ-700	365	A	CF34-8C5B1	2546	1
Passenger	Regional Jet	Embraer ERJ175	11,315	A	CF34-8E5	1771	1
Passenger	Narrowbody	Airbus A320-200 Series	365	A	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A321-100 Series	365	A	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Boeing 737-700 with winglets	730	A	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-800 Series	1,095	A	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-900-ER	1,095	A	CFM56-7B26E	4356	1
Passenger	Widebody	Airbus A340-300 Series	365	A	CFM56-5C4	1142	1
Passenger	Widebody	Boeing 777-200 ER	365	A	Trent 895	4213	1
Passenger	Widebody	B787-8R	730	A	Trent 1000 Pkg B T1000-A/01	3996	1
Passenger	Widebody	Boeing 787-900 Dreamliner	365	A	Trent 1000-A	4860	1
Passenger	Regional Jet	Bombardier CRJ-900	1,095	A	CF34-8C5B1	2426	1
Passenger	Regional Jet	Embraer ERJ175	365	A	CF34-8E5	1771	1

Table C-2 Annual Aircraft Operations for 2024

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Other Air Carrier	Regional Jet	Bombardier CRJ-700	365	A	CF34-8C5B1	2546	1
Cargo	Narrowbody	Boeing 757-200 Series	365	A	PW2037	385	1
Cargo	Widebody	Boeing 767-200 Series	1,825	A	JT9D-7R4D,-7R4D1	437	1
Cargo	Turboprop	Raytheon Beech 99	730	A	PT6A-27	1495	1
Cargo	Turboprop	Fairchild SA-226-TC Metro II	730	A	TPE331-11U-601G	3125	1
General Aviation	Business Jet multi-engine heavy	Cessna 560 Citation XLS	438	A	BIZMEDIUMJET_F	3634	1
General Aviation	Business Jet multi-engine heavy	Gulfstream G400	657	A	TAY611-8C	1916	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 300	876	A	HTF7350 (AS907-2-1A)	4856	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 350	438	A	HTF7350 (AS907-2-1A)	5345	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 600	438	A	CF34-3B	1237	1
General Aviation	Business Jet multi-engine heavy	Gulfstream V-SP	438	A	BR700-710A1-10	2432	1
General Aviation	Business Jet multi-engine light plus	Cessna 525B CitationJet	365	A	BIZLIGHTJET_F	3986	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	365	A	AE3007C2	4249	1
General Aviation	Business Jet multi-engine light plus	Dassault Falcon 2000	365	A	PW308C Build Spec 1289	4804	1
General Aviation	Business Jet multi-engine light plus	Raytheon Hawker 800	365	A	TFE731-2/2A	3105	1
General Aviation	Single engine	Cessna 172 Skyhawk	243	A	TSIO-360C	3247	1
General Aviation	Single engine	Pilatus PC-12	487	A	PT6A-67B	1489	1
Military	Multi-engine turboprop	Raytheon Super King Air 200	365	A	PT6A-61	3034	1
Helicopter		Robinson R44	182	A	TIO-540-J2B2	3161	1
		Raven/Lycoming O-540-F1B5					
Passenger	Narrowbody	Bombardier CS-100	365	D	PW1524G	5301	1
Passenger	Narrowbody	Bombardier CS-100	365	D	PW1524G	5301	2

Table C-2 Annual Aircraft Operations for 2024

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Bombardier CS-100	730	D	PW1524G	5301	3
Passenger	Narrowbody	Airbus A319-100 Series	730	D	V2524-A5	4850	1
Passenger	Narrowbody	Airbus A319-100 Series	730	D	V2524-A5	4850	2
Passenger	Narrowbody	Airbus A319-100 Series	365	D	V2524-A5	4850	3
Passenger	Narrowbody	Airbus A320-200 Series	1,825	D	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A320-200 Series	2,555	D	V2527-A5	1019	2
Passenger	Narrowbody	Airbus A320-200 Series	2,190	D	V2527-A5	1019	3
Passenger	Narrowbody	Airbus A320-200 Series	2,190	D	V2527-A5	1019	4
Passenger	Narrowbody	Airbus A320-NEO	730	D	LEAP-1A26/26E1	5314	1
Passenger	Narrowbody	Airbus A320-NEO	365	D	LEAP-1A26/26E1	5314	3
Passenger	Narrowbody	Airbus A320-NEO	730	D	LEAP-1A26/26E1	5314	4
Passenger	Narrowbody	Airbus A321-100 Series	730	D	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Airbus A321-100 Series	730	D	CFM56-5B3/P	1031	2
Passenger	Narrowbody	Airbus A321-100 Series	1,825	D	CFM56-5B3/P	1031	3
Passenger	Narrowbody	Airbus A321-100 Series	6,205	D	CFM56-5B3/P	1031	4
Passenger	Narrowbody	Airbus A321-NEO	1,095	D	PW1133G-JM	5315	1
Passenger	Narrowbody	Airbus A321-NEO	3,650	D	PW1133G-JM	5315	3
Passenger	Narrowbody	Airbus A321-NEO	730	D	PW1133G-JM	5315	4
Passenger	Narrowbody	Boeing 717-200 Series	730	D	BR700-715A1-30	83	2
Passenger	Narrowbody	Boeing 737-800 MAX	365	D	LEAP-1A35A/AA/33B2/32/30	4129	2
Passenger	Narrowbody	Boeing 737-800 MAX	365	D	LEAP-1A35A/AA/33B2/32/30	4129	3
Passenger	Narrowbody	Boeing 737-700 with winglets	21,535	D	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-700 with winglets	5,475	D	CFM56-7B27/3	4131	2
Passenger	Narrowbody	Boeing 737-700 with winglets	3,650	D	CFM56-7B27/3	4131	3
Passenger	Narrowbody	Boeing 737-700 with winglets	2,190	D	CFM56-7B27/3	4131	4
Passenger	Narrowbody	Boeing 737-800 Series	5,475	D	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-800 Series	2,555	D	CFM56-7B26/3	2497	2

Table C-2 Annual Aircraft Operations for 2024

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Boeing 737-800 Series	5,110	D	CFM56-7B26/3	2497	3
Passenger	Narrowbody	Boeing 737-800 Series	8,760	D	CFM56-7B26/3	2497	4
Passenger	Narrowbody	Boeing 737-900-ER	2,190	D	CFM56-7B26E	4356	1
Passenger	Narrowbody	Boeing 737-900-ER	3,285	D	CFM56-7B26E	4356	2
Passenger	Narrowbody	Boeing 737-900-ER	3,650	D	CFM56-7B26E	4356	3
Passenger	Narrowbody	Boeing 737-900-ER	1,460	D	CFM56-7B26E	4356	4
Passenger	Narrowbody	Boeing 757-200 Series	365	D	PW2037	385	1
Passenger	Narrowbody	Boeing 757-200 Series	2,190	D	PW2037	385	4
Passenger	Widebody	Airbus A330-200 Series	365	D	Trent 772	1094	4
Passenger	Regional Jet	Bombardier CRJ-700	365	D	CF34-8C5B1	2546	1
Passenger	Regional Jet	Embraer ERJ175	7,300	D	CF34-8E5	1771	1
Passenger	Regional Jet	Embraer ERJ175	1,825	D	CF34-8E5	1771	2
Passenger	Regional Jet	Embraer ERJ175	2,190	D	CF34-8E5	1771	3
Passenger	Narrowbody	Airbus A320-200 Series	365	D	V2527-A5	1019	2
Passenger	Narrowbody	Airbus A321-100 Series	365	D	CFM56-5B3/P	1031	4
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	2
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	3
Passenger	Narrowbody	Boeing 737-800 Series	730	D	CFM56-7B26/3	2497	2
Passenger	Narrowbody	Boeing 737-800 Series	730	D	CFM56-7B26/3	2497	3
Passenger	Narrowbody	Boeing 737-900-ER	730	D	CFM56-7B26E	4356	2
Passenger	Widebody	Airbus A340-300 Series	365	D	CFM56-5C4	1142	7
Passenger	Widebody	Boeing 777-200 ER	365	D	Trent 895	4213	7
Passenger	Widebody	B787-8R	730	D	Trent 1000 Pkg B T1000-A/01	3996	7
Passenger	Widebody	Boeing 787-900 Dreamliner	365	D	Trent 1000-A	4860	7
Passenger	Regional Jet	Bombardier CRJ-900	1,095	D	CF34-8C5B1	2426	3
Passenger	Regional Jet	Embraer ERJ175	365	D	CF34-8E5	1771	3
Other Air Taxi	Business Jet multi-engine heavy	Gulfstream V-SP	365	D	BR700-710A1-10	2432	1

Table C-2 Annual Aircraft Operations for 2024

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Cargo	Narrowbody	Boeing 757-200 Series	365	D	PW2037	385	4
Cargo	Widebody	Boeing 767-200 Series	1,095	D	JT9D-7R4D,-7R4D1	437	3
Cargo	Widebody	Boeing 767-200 Series	730	D	JT9D-7R4D,-7R4D1	437	4
Cargo	Turboprop	Raytheon Beech 99	730	D	PT6A-27	1495	1
Cargo	Turboprop	Fairchild SA-226-TC Metro II	730	D	TPE331-11U-601G	3125	1
General Aviation	Business Jet multi-engine heavy	Cessna 560 Citation XLS	438	D	BIZMEDIUMJET_F	3634	1
General Aviation	Business Jet multi-engine heavy	Gulfstream G400	657	D	TAY611-8C	1916	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 300	876	D	HTF7350 (AS907-2-1A)	4856	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 350	438	D	HTF7350 (AS907-2-1A)	5345	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 600	438	D	CF34-3B	1237	1
General Aviation	Business Jet multi-engine heavy	Gulfstream V-SP	438	D	BR700-710A1-10	2432	1
General Aviation	Business Jet multi-engine light plus	Cessna 525B CitationJet	365	D	BIZLIGHTJET_F	3986	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	274	D	AE3007C2	4249	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	91	D	AE3007C2	4249	7
General Aviation	Business Jet multi-engine light plus	Dassault Falcon 2000	365	D	PW308C Build Spec 1289	4804	1
General Aviation	Business Jet multi-engine light plus	Raytheon Hawker 800	365	D	TFE731-2/2A	3105	1
General Aviation	Single engine	Cessna 172 Skyhawk	122	D	TSIO-360C	3247	1
General Aviation	Single engine	Pilatus PC-12	243	D	PT6A-67B	1489	1
Military	Multi-engine turboprop	Raytheon Super King Air 200	365	D	PT6A-61	3034	1
Helicopter		Robinson R44 Raven/Lycoming O-540-F1B5	183	D	TIO-540-J2B2	3161	1
Total			254,040				

Table C-3 Annual Operations for 2026

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Bombardier CS-100	1,095	A	PW1524G	5301	1
Passenger	Narrowbody	Bombardier CS-100	730	A	PW1524G	5301	1
Passenger	Narrowbody	Airbus A319-100 Series	1,825	A	V2524-A5	4850	1
Passenger	Narrowbody	Airbus A320-200 Series	12,045	A	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A320-NEO	2,190	A	LEAP-1A26/26E1	5314	1
Passenger	Narrowbody	Airbus A321-100 Series	12,775	A	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Airbus A321-NEO	5,840	A	PW1133G-JM	5315	1
Passenger	Narrowbody	Boeing 717-200 Series	365	A	BR700-715A1-30	83	1
Passenger	Narrowbody	Boeing 737-800 MAX	730	A	LEAP-1A35A/AA/33B2/32/30	4129	1
Passenger	Narrowbody	Boeing 737-700 with winglets	33,215	A	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-800 Series	20,805	A	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-900-ER	12,775	A	CFM56-7B26E	4356	1
Passenger	Narrowbody	Boeing 757-200 Series	1,460	A	PW2037	385	1
Passenger	Widebody	Airbus A330-200 Series	365	A	Trent 772	1094	1
Passenger	Regional Jet	Embraer ERJ175	6,205	A	CF34-8E5	1771	1
Passenger	Narrowbody	Airbus A320-200 Series	365	A	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A321-100 Series	365	A	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Boeing 737-700 with winglets	1,095	A	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-800 Series	1,095	A	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-900-ER	1,095	A	CFM56-7B26E	4356	1
Passenger	Widebody	Airbus A340-300 Series	365	A	CFM56-5C4	1142	1
Passenger	Widebody	Boeing 777-200 ER	365	A	Trent 895	4213	1
Passenger	Widebody	B787-8R	730	A	Trent 1000 Pkg B T1000-A/01	3996	1
Passenger	Widebody	Boeing 787-900 Dreamliner	365	A	Trent 1000-A	4860	1
Passenger	Regional Jet	Bombardier CRJ-900	365	A	CF34-8C5B1	2426	1
Passenger	Regional Jet	Embraer ERJ175	1,095	A	CF34-8E5	1771	1

Table C-3 Annual Operations for 2026

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Other Air Carrier	Regional Jet	Bombardier CRJ-700	365	A	CF34-8C5B1	2546	1
Other Air Taxi	Business Jet multi-engine heavy	Gulfstream V-SP	365	A	BR700-710A1-10	2432	1
Cargo	Narrowbody	Boeing 757-200 Series	365	A	PW2037	385	1
Cargo	Widebody	Boeing 767-200 Series	1,825	A	JT9D-7R4D,-7R4D1	437	1
Cargo	Turboprop	Raytheon Beech 99	730	A	PT6A-27	1495	1
Cargo	Turboprop	Fairchild SA-226-TC Metro II	730	A	TPE331-11U-601G	3125	1
General Aviation	Business Jet multi-engine heavy	Cessna 560 Citation XLS	449	A	BIZMEDIUMJET_F	3634	1
General Aviation	Business Jet multi-engine heavy	Gulfstream G400	674	A	TAY611-8C	1916	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 300	449	A	HTF7350 (AS907-2-1A)	4856	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 350	449	A	HTF7350 (AS907-2-1A)	5345	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 600	449	A	CF34-3B	1237	1
General Aviation	Business Jet multi-engine heavy	Gulfstream V-SP	449	A	BR700-710A1-10	2432	1
General Aviation	Business Jet multi-engine light plus	Cessna 525B CitationJet	365	A	BIZLIGHTJET_F	3986	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	365	A	AE3007C2	4249	1
General Aviation	Business Jet multi-engine light plus	Dassault Falcon 2000	365	A	PW308C Build Spec 1289	4804	1
General Aviation	Business Jet multi-engine light plus	Raytheon Hawker 800	365	A	TFE731-2/2A	3105	1
General Aviation	Single engine	Pilatus PC-12	365	A	PT6A-67B	1489	1
Military	Multi-engine turboprop	Raytheon Super King Air 200	365	A	PT6A-61	3034	1
Helicopter		Robinson R44					
		Raven/Lycoming O-540-F1B5	182	A	TIO-540-J2B2	3161	1
Passenger	Narrowbody	Bombardier CS-100	365	D	PW1524G	5301	1
Passenger	Narrowbody	Bombardier CS-100	730	D	PW1524G	5301	2

Table C-3 Annual Operations for 2026

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Bombardier CS-100	730	D	PW1524G	5301	3
Passenger	Narrowbody	Airbus A319-100 Series	730	D	V2524-A5	4850	1
Passenger	Narrowbody	Airbus A319-100 Series	730	D	V2524-A5	4850	2
Passenger	Narrowbody	Airbus A319-100 Series	365	D	V2524-A5	4850	3
Passenger	Narrowbody	Airbus A320-200 Series	2,920	D	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A320-200 Series	3,285	D	V2527-A5	1019	2
Passenger	Narrowbody	Airbus A320-200 Series	3,285	D	V2527-A5	1019	3
Passenger	Narrowbody	Airbus A320-200 Series	2,555	D	V2527-A5	1019	4
Passenger	Narrowbody	Airbus A320-NEO	1,095	D	LEAP-1A26/26E1	5314	1
Passenger	Narrowbody	Airbus A320-NEO	365	D	LEAP-1A26/26E1	5314	3
Passenger	Narrowbody	Airbus A320-NEO	730	D	LEAP-1A26/26E1	5314	4
Passenger	Narrowbody	Airbus A321-100 Series	1,460	D	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Airbus A321-100 Series	730	D	CFM56-5B3/P	1031	2
Passenger	Narrowbody	Airbus A321-100 Series	3,285	D	CFM56-5B3/P	1031	3
Passenger	Narrowbody	Airbus A321-100 Series	7,300	D	CFM56-5B3/P	1031	4
Passenger	Narrowbody	Airbus A321-NEO	1,460	D	PW1133G-JM	5315	1
Passenger	Narrowbody	Airbus A321-NEO	3,650	D	PW1133G-JM	5315	3
Passenger	Narrowbody	Airbus A321-NEO	730	D	PW1133G-JM	5315	4
Passenger	Narrowbody	Boeing 717-200 Series	365	D	BR700-715A1-30	83	2
Passenger	Narrowbody	Boeing 737-800 MAX	365	D	LEAP-1A35A/AA/33B2/32/30	4129	2
Passenger	Narrowbody	Boeing 737-800 MAX	365	D	LEAP-1A35A/AA/33B2/32/30	4129	3
Passenger	Narrowbody	Boeing 737-700 with winglets	21,902	D	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-700 with winglets	5,475	D	CFM56-7B27/3	4131	2
Passenger	Narrowbody	Boeing 737-700 with winglets	3,650	D	CFM56-7B27/3	4131	3
Passenger	Narrowbody	Boeing 737-700 with winglets	2,190	D	CFM56-7B27/3	4131	4
Passenger	Narrowbody	Boeing 737-800 Series	5,475	D	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-800 Series	2,555	D	CFM56-7B26/3	2497	2

Table C-3 Annual Operations for 2026

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Boeing 737-800 Series	4,380	D	CFM56-7B26/3	2497	3
Passenger	Narrowbody	Boeing 737-800 Series	8,030	D	CFM56-7B26/3	2497	4
Passenger	Narrowbody	Boeing 737-900-ER	2,555	D	CFM56-7B26E	4356	1
Passenger	Narrowbody	Boeing 737-900-ER	3,285	D	CFM56-7B26E	4356	2
Passenger	Narrowbody	Boeing 737-900-ER	4,015	D	CFM56-7B26E	4356	3
Passenger	Narrowbody	Boeing 737-900-ER	3,285	D	CFM56-7B26E	4356	4
Passenger	Narrowbody	Boeing 757-200 Series	1,460	D	PW2037	385	4
Passenger	Widebody	Airbus A330-200 Series	365	D	Trent 772	1094	4
Passenger	Regional Jet	Embraer ERJ175	4,015	D	CF34-8E5	1771	1
Passenger	Regional Jet	Embraer ERJ175	1,095	D	CF34-8E5	1771	2
Passenger	Regional Jet	Embraer ERJ175	1,095	D	CF34-8E5	1771	3
Passenger	Narrowbody	Airbus A320-200 Series	365	D	V2527-A5	1019	2
Passenger	Narrowbody	Airbus A321-100 Series	365	D	CFM56-5B3/P	1031	4
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	2
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	3
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	4
Passenger	Narrowbody	Boeing 737-800 Series	730	D	CFM56-7B26/3	2497	2
Passenger	Narrowbody	Boeing 737-800 Series	730	D	CFM56-7B26/3	2497	3
Passenger	Narrowbody	Boeing 737-900-ER	730	D	CFM56-7B26E	4356	2
Passenger	Widebody	Airbus A340-300 Series	365	D	CFM56-5C4	1142	7
Passenger	Widebody	Boeing 777-200 ER	365	D	Trent 895	4213	7
Passenger	Widebody	B787-8R	730	D	Trent 1000 Pkg B T1000-A/01	3996	7
Passenger	Widebody	Boeing 787-900 Dreamliner	365	D	Trent 1000-A	4860	7
Passenger	Regional Jet	Bombardier CRJ-900	365	D	CF34-8C5B1	2426	3
Passenger	Regional Jet	Embraer ERJ175	1,095	D	CF34-8E5	1771	3
Other Air Taxi	Business Jet multi-engine heavy	Gulfstream V-SP	365	D	BR700-710A1-10	2432	1
Cargo	Narrowbody	Boeing 757-200 Series	365	D	PW2037	385	4

Table C-3 Annual Operations for 2026

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Cargo	Widebody	Boeing 767-200 Series	1,095	D	JT9D-7R4D,-7R4D1	437	3
Cargo	Widebody	Boeing 767-200 Series	730	D	JT9D-7R4D,-7R4D1	437	4
Cargo	Turboprop	Raytheon Beech 99	730	D	PT6A-27	1495	1
Cargo	Turboprop	Fairchild SA-226-TC Metro II	730	D	TPE331-11U-601G	3125	1
General Aviation	Business Jet multi-engine heavy	Cessna 560 Citation XLS	449	D	BIZMEDIUMJET_F	3634	1
General Aviation	Business Jet multi-engine heavy	Gulfstream G400	674	D	TAY611-8C	1916	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 300	449	D	HTF7350 (AS907-2-1A)	4856	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 350	449	D	HTF7350 (AS907-2-1A)	5345	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 600	449	D	CF34-3B	1237	1
General Aviation	Business Jet multi-engine heavy	Gulfstream V-SP	449	D	BR700-710A1-10	2432	1
General Aviation	Business Jet multi-engine light plus	Cessna 525B CitationJet	365	D	BIZLIGHTJET_F	3986	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	274	D	AE3007C2	4249	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	91	D	AE3007C2	4249	7
General Aviation	Business Jet multi-engine light plus	Dassault Falcon 2000	365	D	PW308C Build Spec 1289	4804	1
General Aviation	Business Jet multi-engine light plus	Raytheon Hawker 800	365	D	TFE731-2/2A	3105	1
General Aviation	Single engine	Pilatus PC-12	365	D	PT6A-67B	1489	1
General Aviation	Multi-engine turboprop	Raytheon Super King Air 200	365	D	PT6A-61	3034	1
Military	Multi-engine turboprop	Raytheon Super King Air 200	365	D	PT6A-61	3034	1
Helicopter		Robinson R44 Raven/Lycoming O-540-F1B5	183	D	TIO-540-J2B2	3161	1
Total			258,785				

Table C-4 Annual Operations for 2030

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Bombardier CS-100	3,285	A	PW1524G	5301	1
Passenger	Narrowbody	Bombardier CS-100	1,095	A	PW1524G	5301	1
Passenger	Narrowbody	Airbus A320-200 Series	7,665	A	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A320-NEO	2,190	A	LEAP-1A26/26E1	5314	1
Passenger	Narrowbody	Airbus A321-100 Series	15,695	A	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Airbus A321-NEO	9,490	A	PW1133G-JM	5315	1
Passenger	Narrowbody	Boeing 737-700 MAX	3,650	A	LEAP-1A35A/AA/33B2/32/30	4128	1
Passenger	Narrowbody	Boeing 737-800 MAX	2,190	A	LEAP-1A35A/AA/33B2/32/30	4129	1
Passenger	Narrowbody	Boeing 737-700 with winglets	21,900	A	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-800 Series	25,185	A	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-900-ER	21,900	A	CFM56-7B26E	4356	1
Passenger	Narrowbody	Boeing 757-200 Series	730	A	PW2037	385	1
Passenger	Widebody	Airbus A330-200 Series	365	A	Trent 772	1094	1
Passenger	Regional Jet	Embraer ERJ175	1,460	A	CF34-8E5	1771	1
Passenger	Narrowbody	Airbus A320-200 Series	365	A	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A321-100 Series	365	A	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Boeing 737-800 MAX	365	A	LEAP-1A35A/AA/33B2/32/30	4129	1
Passenger	Narrowbody	Boeing 737-700 with winglets	365	A	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-800 Series	1,825	A	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-900-ER	1,460	A	CFM56-7B26E	4356	1
Passenger	Widebody	Airbus A340-300 Series	365	A	CFM56-5C4	1142	1
Passenger	Widebody	Boeing 777-200 ER	365	A	Trent 895	4213	1
Passenger	Widebody	B787-8R	730	A	Trent 1000 Pkg B T1000-A/01	3996	1
Passenger	Widebody	Boeing 787-900 Dreamliner	730	A	Trent 1000-A	4860	1
Passenger	Regional Jet	Bombardier CRJ-900	365	A	CF34-8C5B1	2426	1
Passenger	Regional Jet	Embraer ERJ175	1,095	A	CF34-8E5	1771	1
Other Air Taxi	Business Jet multi-	Gulfstream V-SP	365	A	BR700-710A1-10	2432	1

Table C-4 Annual Operations for 2030

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
	engine heavy						
Cargo	Narrowbody	Boeing 757-200 Series	365	A	PW2037	385	1
Cargo	Widebody	Boeing 767-200 Series	1,825	A	JT9D-7R4D,-7R4D1	437	1
Cargo	Turboprop	Raytheon Beech 99	1,095	A	PT6A-27	1495	1
Cargo	Turboprop	Fairchild SA-226-TC Metro II	730	A	TPE331-11U-601G	3125	1
General Aviation	Business Jet multi-engine heavy	Cessna 560 Citation XLS	449	A	BIZMEDIUMJET_F	3634	1
General Aviation	Business Jet multi-engine heavy	Gulfstream G400	674	A	TAY611-8C	1916	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 300	449	A	HTF7350 (AS907-2-1A)	4856	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 350	449	A	HTF7350 (AS907-2-1A)	5345	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 600	449	A	CF34-3B	1237	1
General Aviation	Business Jet multi-engine heavy	Gulfstream V-SP	449	A	BR700-710A1-10	2432	1
General Aviation	Business Jet multi-engine light plus	Cessna 525B CitationJet	365	A	BIZLIGHTJET_F	3986	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	365	A	AE3007C2	4249	1
General Aviation	Business Jet multi-engine light plus	Dassault Falcon 2000	365	A	PW308C Build Spec 1289	4804	1
General Aviation	Business Jet multi-engine light plus	Raytheon Hawker 800	365	A	TFE731-2/2A	3105	1
Military	Multi-engine turboprop	Raytheon Super King Air 200	365	A	PT6A-61	3034	1
Helicopter		Robinson R44 Raven/Lycoming O-540-F1B5	182	A	TIO-540-J2B2	3161	1
Passenger	Narrowbody	Bombardier CS-100	1,825	D	PW1524G	5301	1
Passenger	Narrowbody	Bombardier CS-100	1,460	D	PW1524G	5301	2
Passenger	Narrowbody	Bombardier CS-100	365	D	PW1524G	5301	2
Passenger	Narrowbody	Bombardier CS-100	730	D	PW1524G	5301	3

Table C-4 Annual Operations for 2030

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Airbus A320-200 Series	2,555	D	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A320-200 Series	1,825	D	V2527-A5	1019	2
Passenger	Narrowbody	Airbus A320-200 Series	1,825	D	V2527-A5	1019	3
Passenger	Narrowbody	Airbus A320-200 Series	1,460	D	V2527-A5	1019	4
Passenger	Narrowbody	Airbus A320-NEO	1,095	D	LEAP-1A26/26E1	5314	1
Passenger	Narrowbody	Airbus A320-NEO	365	D	LEAP-1A26/26E1	5314	3
Passenger	Narrowbody	Airbus A320-NEO	730	D	LEAP-1A26/26E1	5314	4
Passenger	Narrowbody	Airbus A321-100 Series	1,460	D	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Airbus A321-100 Series	1,825	D	CFM56-5B3/P	1031	2
Passenger	Narrowbody	Airbus A321-100 Series	4,015	D	CFM56-5B3/P	1031	3
Passenger	Narrowbody	Airbus A321-100 Series	8,395	D	CFM56-5B3/P	1031	4
Passenger	Narrowbody	Airbus A321-NEO	2,920	D	PW1133G-JM	5315	1
Passenger	Narrowbody	Airbus A321-NEO	730	D	PW1133G-JM	5315	2
Passenger	Narrowbody	Airbus A321-NEO	4,745	D	PW1133G-JM	5315	3
Passenger	Narrowbody	Airbus A321-NEO	730	D	PW1133G-JM	5315	4
Passenger	Narrowbody	Boeing 737-700 MAX	2,920	D	LEAP-1A35A/AA/33B2/32/30	4128	1
Passenger	Narrowbody	Boeing 737-700 MAX	730	D	LEAP-1A35A/AA/33B2/32/30	4128	4
Passenger	Narrowbody	Boeing 737-800 MAX	1,460	D	LEAP-1A35A/AA/33B2/32/30	4129	1
Passenger	Narrowbody	Boeing 737-800 MAX	365	D	LEAP-1A35A/AA/33B2/32/30	4129	2
Passenger	Narrowbody	Boeing 737-800 MAX	365	D	LEAP-1A35A/AA/33B2/32/30	4129	3
Passenger	Narrowbody	Boeing 737-700 with winglets	14,237	D	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-700 with winglets	4,015	D	CFM56-7B27/3	4131	2
Passenger	Narrowbody	Boeing 737-700 with winglets	2,190	D	CFM56-7B27/3	4131	3
Passenger	Narrowbody	Boeing 737-700 with winglets	1,095	D	CFM56-7B27/3	4131	4
Passenger	Narrowbody	Boeing 737-800 Series	8,030	D	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-800 Series	3,650	D	CFM56-7B26/3	2497	2
Passenger	Narrowbody	Boeing 737-800 Series	6,935	D	CFM56-7B26/3	2497	3

Table C-4 Annual Operations for 2030

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Boeing 737-800 Series	6,935	D	CFM56-7B26/3	2497	4
Passenger	Narrowbody	Boeing 737-900-ER	5,110	D	CFM56-7B26E	4356	1
Passenger	Narrowbody	Boeing 737-900-ER	4,380	D	CFM56-7B26E	4356	2
Passenger	Narrowbody	Boeing 737-900-ER	5,475	D	CFM56-7B26E	4356	3
Passenger	Narrowbody	Boeing 737-900-ER	7,300	D	CFM56-7B26E	4356	4
Passenger	Narrowbody	Boeing 757-200 Series	730	D	PW2037	385	4
Passenger	Widebody	Airbus A330-200 Series	365	D	Trent 772	1094	4
Passenger	Regional Jet	Embraer ERJ175	1,095	D	CF34-8E5	1771	1
Passenger	Regional Jet	Embraer ERJ175	365	D	CF34-8E5	1771	2
Passenger	Narrowbody	Airbus A320-200 Series	365	D	V2527-A5	1019	2
Passenger	Narrowbody	Airbus A321-100 Series	365	D	CFM56-5B3/P	1031	4
Passenger	Narrowbody	Boeing 737-800 MAX	365	D	LEAP-1A35A/AA/33B2/32/30	4129	3
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	2
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	4
Passenger	Narrowbody	Boeing 737-800 Series	365	D	CFM56-7B26/3	2497	2
Passenger	Narrowbody	Boeing 737-800 Series	730	D	CFM56-7B26/3	2497	3
Passenger	Narrowbody	Boeing 737-800 Series	365	D	CFM56-7B26/3	2497	4
Passenger	Narrowbody	Boeing 737-900-ER	1,095	D	CFM56-7B26E	4356	2
Passenger	Narrowbody	Boeing 737-900-ER	365	D	CFM56-7B26E	4356	3
Passenger	Widebody	Airbus A340-300 Series	365	D	CFM56-5C4	1142	7
Passenger	Widebody	Boeing 777-200 ER	365	D	Trent 895	4213	7
Passenger	Widebody	B787-8R	730	D	Trent 1000 Pkg B T1000-A/01	3996	7
Passenger	Widebody	Boeing 787-900 Dreamliner	365	D	Trent 1000-A	4860	7
Passenger	Widebody	Boeing 787-900 Dreamliner	365	D	Trent 1000-A	4860	9
Passenger	Regional Jet	Bombardier CRJ-900	365	D	CF34-8C5B1	2426	3
Passenger	Regional Jet	Embraer ERJ175	1,095	D	CF34-8E5	1771	3
Other Air Taxi	Business Jet multi-engine heavy	Gulfstream V-SP	365	D	BR700-710A1-10	2432	1

Table C-4 Annual Operations for 2030

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Cargo	Narrowbody	Boeing 757-200 Series	365	D	PW2037	385	4
Cargo	Widebody	Boeing 767-200 Series	1,095	D	JT9D-7R4D,-7R4D1	437	3
Cargo	Widebody	Boeing 767-200 Series	730	D	JT9D-7R4D,-7R4D1	437	4
Cargo	Turboprop	Raytheon Beech 99	1,095	D	PT6A-27	1495	1
Cargo	Turboprop	Fairchild SA-226-TC Metro II	730	D	TPE331-11U-601G	3125	1
General Aviation	Business Jet multi-engine heavy	Cessna 560 Citation XLS	449	D	BIZMEDIUMJET_F	3634	1
General Aviation	Business Jet multi-engine heavy	Gulfstream G400	674	D	TAY611-8C	1916	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 300	449	D	HTF7350 (AS907-2-1A)	4856	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 350	449	D	HTF7350 (AS907-2-1A)	5345	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 600	449	D	CF34-3B	1237	1
General Aviation	Business Jet multi-engine heavy	Gulfstream V-SP	449	D	BR700-710A1-10	2432	1
General Aviation	Business Jet multi-engine light plus	Cessna 525B CitationJet	365	D	BIZLIGHTJET_F	3986	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	274	D	AE3007C2	4249	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	91	D	AE3007C2	4249	7
General Aviation	Business Jet multi-engine light plus	Dassault Falcon 2000	365	D	PW308C Build Spec 1289	4804	1
General Aviation	Business Jet multi-engine light plus	Raytheon Hawker 800	365	D	TFE731-2/2A	3105	1
General Aviation	Multi-engine turboprop	Raytheon Super King Air 200	365	D	PT6A-61	3034	1
Military	Multi-engine turboprop	Raytheon Super King Air 200	365	D	PT6A-61	3034	1
Helicopter		Robinson R44 Raven/Lycoming O-540-F1B5	183	D	TIO-540-J2B2	3161	1
Total			269,370				

Table C-5 Annual Operations for 2035

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Bombardier CS-100	730	A	PW1524G	5301	1
Passenger	Narrowbody	Bombardier CS-100	3,650	A	PW1524G	5301	1
Passenger	Narrowbody	Airbus A320-200 Series	5,110	A	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A320-NEO	2,190	A	LEAP-1A26/26E1	5314	1
Passenger	Narrowbody	Airbus A321-100 Series	16,060	A	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Airbus A321-NEO	14,965	A	PW1133G-JM	5315	1
Passenger	Narrowbody	Boeing 737-700 MAX	6,205	A	LEAP-1A35A/AA/33B2/32/30	4128	1
Passenger	Narrowbody	Boeing 737-800 MAX	3,285	A	LEAP-1A35A/AA/33B2/32/30	4129	1
Passenger	Narrowbody	Boeing 737-700 with winglets	3,650	A	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-800 Series	38,690	A	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-900-ER	22,630	A	CFM56-7B26E	4356	1
Passenger	Widebody	Airbus A330-200 Series	365	A	Trent 772	1094	1
Passenger	Widebody	B787-8R	3,285	A	Trent 1000 Pkg B T1000-A/01	3996	1
Passenger	Regional Jet	Embraer ERJ175	1,460	A	CF34-8E5	1771	1
Passenger	Narrowbody	Airbus A320-200 Series	365	A	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A321-100 Series	365	A	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Boeing 737-700 MAX	365	A	LEAP-1A35A/AA/33B2/32/30	4128	1
Passenger	Narrowbody	Boeing 737-800 MAX	365	A	LEAP-1A35A/AA/33B2/32/30	4129	1
Passenger	Narrowbody	Boeing 737-700 with winglets	365	A	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-800 Series	1,460	A	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-900-ER	1,825	A	CFM56-7B26E	4356	1
Passenger	Widebody	Airbus A340-300 Series	365	A	CFM56-5C4	1142	1
Passenger	Widebody	Boeing 777-200 ER	365	A	Trent 895	4213	1
Passenger	Widebody	B787-8R	730	A	Trent 1000 Pkg B T1000-A/01	3996	1
Passenger	Widebody	Boeing 787-900 Dreamliner	730	A	Trent 1000-A	4860	1
Passenger	Regional Jet	Embraer ERJ175	1,825	A	CF34-8E5	1771	1
Other Air Carrier	Narrowbody	Airbus A319-100 Series	365	A	V2524-A5	4850	1
Other Air Carrier	Regional Jet	Bombardier CRJ-700	365	A	CF34-8C5B1	2546	1

Table C-5 Annual Operations for 2035

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Other Air Taxi	Business Jet multi-engine heavy	Gulfstream V-SP	365	A	BR700-710A1-10	2432	1
Cargo	Narrowbody	Boeing 757-200 Series	365	A	PW2037	385	1
Cargo	Widebody	Boeing 767-200 Series	2,190	A	JT9D-7R4D,-7R4D1	437	1
Cargo	Turboprop	Raytheon Beech 99	1,095	A	PT6A-27	1495	1
Cargo	Turboprop	Fairchild SA-226-TC Metro II	730	A	TPE331-11U-601G	3125	1
General Aviation	Business Jet multi-engine heavy	Cessna 560 Citation XLS	449	A	BIZMEDIUMJET_F	3634	1
General Aviation	Business Jet multi-engine heavy	Gulfstream G400	674	A	TAY611-8C	1916	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 300	449	A	HTF7350 (AS907-2-1A)	4856	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 350	449	A	HTF7350 (AS907-2-1A)	5345	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 600	449	A	CF34-3B	1237	1
General Aviation	Business Jet multi-engine heavy	Gulfstream V-SP	449	A	BR700-710A1-10	2432	1
General Aviation	Business Jet multi-engine light plus	Cessna 525B CitationJet	365	A	BIZLIGHTJET_F	3986	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	365	A	AE3007C2	4249	1
General Aviation	Business Jet multi-engine light plus	Raytheon Hawker 800	365	A	TFE731-2/2A	3105	1
Military	Multi-engine turboprop	Raytheon Super King Air 200	365	A	PT6A-61	3034	1
Helicopter		Robinson R44 Raven/Lycoming O-540-F1B5	182	A	TIO-540-J2B2	3161	1
Passenger	Narrowbody	Bombardier CS-100	730	D	PW1524G	5301	1
Passenger	Narrowbody	Bombardier CS-100	1,460	D	PW1524G	5301	1
Passenger	Narrowbody	Bombardier CS-100	1,460	D	PW1524G	5301	2
Passenger	Narrowbody	Bombardier CS-100	730	D	PW1524G	5301	3
Passenger	Narrowbody	Airbus A320-200 Series	1,460	D	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A320-200 Series	2,190	D	V2527-A5	1019	2

Table C-5 Annual Operations for 2035

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Airbus A320-200 Series	730	D	V2527-A5	1019	3
Passenger	Narrowbody	Airbus A320-200 Series	730	D	V2527-A5	1019	4
Passenger	Narrowbody	Airbus A320-NEO	1,095	D	LEAP-1A26/26E1	5314	1
Passenger	Narrowbody	Airbus A320-NEO	365	D	LEAP-1A26/26E1	5314	3
Passenger	Narrowbody	Airbus A320-NEO	730	D	LEAP-1A26/26E1	5314	4
Passenger	Narrowbody	Airbus A321-100 Series	1,460	D	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Airbus A321-100 Series	1,825	D	CFM56-5B3/P	1031	2
Passenger	Narrowbody	Airbus A321-100 Series	4,015	D	CFM56-5B3/P	1031	3
Passenger	Narrowbody	Airbus A321-100 Series	8,395	D	CFM56-5B3/P	1031	4
Passenger	Narrowbody	Airbus A321-NEO	4,745	D	PW1133G-JM	5315	1
Passenger	Narrowbody	Airbus A321-NEO	2,920	D	PW1133G-JM	5315	2
Passenger	Narrowbody	Airbus A321-NEO	5,840	D	PW1133G-JM	5315	3
Passenger	Narrowbody	Airbus A321-NEO	1,095	D	PW1133G-JM	5315	4
Passenger	Narrowbody	Boeing 737-700 MAX	4,745	D	LEAP-1A35A/AA/33B2/32/30	4128	1
Passenger	Narrowbody	Boeing 737-700 MAX	730	D	LEAP-1A35A/AA/33B2/32/30	4128	2
Passenger	Narrowbody	Boeing 737-700 MAX	730	D	LEAP-1A35A/AA/33B2/32/30	4128	4
Passenger	Narrowbody	Boeing 737-800 MAX	1,460	D	LEAP-1A35A/AA/33B2/32/30	4129	1
Passenger	Narrowbody	Boeing 737-800 MAX	1,460	D	LEAP-1A35A/AA/33B2/32/30	4129	2
Passenger	Narrowbody	Boeing 737-800 MAX	365	D	LEAP-1A35A/AA/33B2/32/30	4129	3
Passenger	Narrowbody	Boeing 737-700 with winglets	2,555	D	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	2
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	3
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	4
Passenger	Narrowbody	Boeing 737-800 Series	18,252	D	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-800 Series	5,110	D	CFM56-7B26/3	2497	2
Passenger	Narrowbody	Boeing 737-800 Series	8,760	D	CFM56-7B26/3	2497	3
Passenger	Narrowbody	Boeing 737-800 Series	6,935	D	CFM56-7B26/3	2497	4
Passenger	Narrowbody	Boeing 737-900-ER	5,110	D	CFM56-7B26E	4356	1

Table C-5 Annual Operations for 2035

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Boeing 737-900-ER	4,015	D	CFM56-7B26E	4356	2
Passenger	Narrowbody	Boeing 737-900-ER	5,110	D	CFM56-7B26E	4356	3
Passenger	Narrowbody	Boeing 737-900-ER	8,395	D	CFM56-7B26E	4356	4
Passenger	Widebody	Airbus A330-200 Series	365	D	Trent 772	1094	4
Passenger	Widebody	B787-8R	730	D	Trent 1000 Pkg B T1000-A/01	3996	3
Passenger	Widebody	B787-8R	2,920	D	Trent 1000 Pkg B T1000-A/01	3996	4
Passenger	Regional Jet	Embraer ERJ175	365	D	CF34-8E5	1771	1
Passenger	Regional Jet	Embraer ERJ175	730	D	CF34-8E5	1771	2
Passenger	Regional Jet	Embraer ERJ175	365	D	CF34-8E5	1771	3
Passenger	Narrowbody	Airbus A320-200 Series	365	D	V2527-A5	1019	2
Passenger	Narrowbody	Airbus A321-100 Series	365	D	CFM56-5B3/P	1031	4
Passenger	Narrowbody	Boeing 737-700 MAX	365	D	LEAP-1A35A/AA/33B2/32/30	4128	2
Passenger	Narrowbody	Boeing 737-800 MAX	365	D	LEAP-1A35A/AA/33B2/32/30	4129	3
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	4
Passenger	Narrowbody	Boeing 737-800 Series	365	D	CFM56-7B26/3	2497	2
Passenger	Narrowbody	Boeing 737-800 Series	730	D	CFM56-7B26/3	2497	3
Passenger	Narrowbody	Boeing 737-800 Series	365	D	CFM56-7B26/3	2497	4
Passenger	Narrowbody	Boeing 737-900-ER	1,460	D	CFM56-7B26E	4356	2
Passenger	Narrowbody	Boeing 737-900-ER	365	D	CFM56-7B26E	4356	3
Passenger	Widebody	Airbus A340-300 Series	365	D	CFM56-5C4	1142	7
Passenger	Widebody	Boeing 777-200 ER	365	D	Trent 895	4213	7
Passenger	Widebody	B787-8R	730	D	Trent 1000 Pkg B T1000-A/01	3996	7
Passenger	Widebody	Boeing 787-900 Dreamliner	365	D	Trent 1000-A	4860	7
Passenger	Widebody	Boeing 787-900 Dreamliner	365	D	Trent 1000-A	4860	9
Passenger	Regional Jet	Embraer ERJ175	1,825	D	CF34-8E5	1771	3
Other Air Carrier	Narrowbody	Airbus A319-100 Series	365	D	V2524-A5	4850	1
Other Air Taxi	Business Jet multi-engine heavy	Gulfstream V-SP	365	D	BR700-710A1-10	2432	1

Table C-5 Annual Operations for 2035

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Cargo	Narrowbody	Boeing 757-200 Series	365	D	PW2037	385	4
Cargo	Widebody	Boeing 767-200 Series	1,460	D	JT9D-7R4D,-7R4D1	437	3
Cargo	Widebody	Boeing 767-200 Series	730	D	JT9D-7R4D,-7R4D1	437	4
Cargo	Turboprop	Raytheon Beech 99	1,095	D	PT6A-27	1495	1
Cargo	Turboprop	Fairchild SA-226-TC Metro II	730	D	TPE331-11U-601G	3125	1
General Aviation	Business Jet multi-engine heavy	Cessna 560 Citation XLS	449	D	BIZMEDIUMJET_F	3634	1
General Aviation	Business Jet multi-engine heavy	Gulfstream G400	674	D	TAY611-8C	1916	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 300	449	D	HTF7350 (AS907-2-1A)	4856	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 350	449	D	HTF7350 (AS907-2-1A)	5345	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 600	449	D	CF34-3B	1237	1
General Aviation	Business Jet multi-engine heavy	Gulfstream V-SP	449	D	BR700-710A1-10	2432	1
General Aviation	Business Jet multi-engine light plus	Cessna 525B CitationJet	365	D	BIZLIGHTJET_F	3986	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	243	D	AE3007C2	4249	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	122	D	AE3007C2	4249	7
General Aviation	Business Jet multi-engine light plus	Raytheon Hawker 800	365	D	TFE731-2/2A	3105	1
General Aviation	Multi-engine turboprop	Raytheon Super King Air 200	365	D	PT6A-61	3034	1
Military	Multi-engine turboprop	Raytheon Super King Air 200	365	D	PT6A-61	3034	1
Helicopter		Robinson R44 Raven/Lycoming O-540-F1B5	183	D	TIO-540-J2B2	3161	1
Total			282,875				

Table C-6 Annual Operations for 2050

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Bombardier CS-100	730	A	PW1524G	5301	1
Passenger	Narrowbody	Bombardier CS-100	3,285	A	PW1524G	5301	1
Passenger	Narrowbody	Airbus A320-200 Series	5,110	A	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A320-NEO	2,190	A	LEAP-1A26/26E1	5314	1
Passenger	Narrowbody	Airbus A321-100 Series	15,695	A	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Airbus A321-NEO	14,965	A	PW1133G-JM	5315	1
Passenger	Narrowbody	Boeing 737-700 MAX	7,665	A	LEAP-1A35A/AA/33B2/32/30	4128	1
Passenger	Narrowbody	Boeing 737-800 MAX	3,650	A	LEAP-1A35A/AA/33B2/32/30	4129	1
Passenger	Narrowbody	Boeing 737-700 with winglets	3,285	A	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-800 Series	39,418	A	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-900-ER	22,995	A	CFM56-7B26E	4356	1
Passenger	Widebody	Airbus A330-200 Series	365	A	Trent 772	1094	1
Passenger	Widebody	B787-8R	3,285	A	Trent 1000 Pkg B T1000-A/01	3996	1
Passenger	Regional Jet	Embraer ERJ175	2,555	A	CF34-8E5	1771	1
Passenger	Narrowbody	Airbus A320-200 Series	365	A	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A321-100 Series	365	A	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Boeing 737-700 MAX	365	A	LEAP-1A35A/AA/33B2/32/30	4128	1
Passenger	Narrowbody	Boeing 737-800 MAX	365	A	LEAP-1A35A/AA/33B2/32/30	4129	1
Passenger	Narrowbody	Boeing 737-700 with winglets	365	A	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-800 Series	1,460	A	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-900-ER	2,190	A	CFM56-7B26E	4356	1
Passenger	Widebody	Airbus A330-300 Series	365	A	Trent 772	1095	1
Passenger	Widebody	Airbus A340-300 Series	730	A	CFM56-5C4	1142	1
Passenger	Widebody	Boeing 777-200 ER	365	A	Trent 895	4213	1
Passenger	Widebody	B787-8R	730	A	Trent 1000 Pkg B T1000-A/01	3996	1
Passenger	Widebody	Boeing 787-900 Dreamliner	1,095	A	Trent 1000-A	4860	1
Passenger	Regional Jet	Embraer ERJ175	1,825	A	CF34-8E5	1771	1

Table C-6 Annual Operations for 2050

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Other Air Carrier	Regional Jet	Bombardier CRJ-700	365	A	CF34-8C5B1	2546	1
Other Air Taxi	Business Jet multi-engine heavy	Gulfstream V-SP	365	A	BR700-710A1-10	2432	1
Cargo	Narrowbody	Boeing 757-200 Series	365	A	PW2037	385	1
Cargo	Widebody	Boeing 767-200 Series	2,555	A	JT9D-7R4D,-7R4D1	437	1
Cargo	Turboprop	Raytheon Beech 99	1,825	A	PT6A-27	1495	1
Cargo	Turboprop	Fairchild SA-226-TC Metro II	730	A	TPE331-11U-601G	3125	1
General Aviation	Business Jet multi-engine heavy	Cessna 560 Citation XLS	487	A	BIZMEDIUMJET_F	3634	1
General Aviation	Business Jet multi-engine heavy	Gulfstream G400	243	A	TAY611-8C	1916	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 300	487	A	HTF7350 (AS907-2-1A)	4856	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 350	487	A	HTF7350 (AS907-2-1A)	5345	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 600	487	A	CF34-3B	1237	1
General Aviation	Business Jet multi-engine light plus	Cessna 525B CitationJet	122	A	BIZLIGHTJET_F	3986	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	243	A	AE3007C2	4249	1
Military	Multi-engine turboprop	Raytheon Super King Air 200	365	A	PT6A-61	3034	1
Helicopter		Robinson R44 Raven/Lycoming O-540-F1B5	182	A	TIO-540-J2B2	3161	1
Passenger	Narrowbody	Bombardier CS-100	730	D	PW1524G	5301	1
Passenger	Narrowbody	Bombardier CS-100	1,095	D	PW1524G	5301	1
Passenger	Narrowbody	Bombardier CS-100	1,460	D	PW1524G	5301	2
Passenger	Narrowbody	Bombardier CS-100	730	D	PW1524G	5301	3
Passenger	Narrowbody	Airbus A320-200 Series	1,460	D	V2527-A5	1019	1
Passenger	Narrowbody	Airbus A320-200 Series	2,190	D	V2527-A5	1019	2
Passenger	Narrowbody	Airbus A320-200 Series	730	D	V2527-A5	1019	3

Table C-6 Annual Operations for 2050

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Airbus A320-200 Series	730	D	V2527-A5	1019	4
Passenger	Narrowbody	Airbus A320-NEO	1,095	D	LEAP-1A26/26E1	5314	1
Passenger	Narrowbody	Airbus A320-NEO	365	D	LEAP-1A26/26E1	5314	3
Passenger	Narrowbody	Airbus A320-NEO	730	D	LEAP-1A26/26E1	5314	4
Passenger	Narrowbody	Airbus A321-100 Series	1,460	D	CFM56-5B3/P	1031	1
Passenger	Narrowbody	Airbus A321-100 Series	1,825	D	CFM56-5B3/P	1031	2
Passenger	Narrowbody	Airbus A321-100 Series	4,015	D	CFM56-5B3/P	1031	3
Passenger	Narrowbody	Airbus A321-100 Series	8,030	D	CFM56-5B3/P	1031	4
Passenger	Narrowbody	Airbus A321-NEO	4,745	D	PW1133G-JM	5315	1
Passenger	Narrowbody	Airbus A321-NEO	2,920	D	PW1133G-JM	5315	2
Passenger	Narrowbody	Airbus A321-NEO	5,840	D	PW1133G-JM	5315	3
Passenger	Narrowbody	Airbus A321-NEO	1,095	D	PW1133G-JM	5315	4
Passenger	Narrowbody	Boeing 737-700 MAX	5,110	D	LEAP-1A35A/AA/33B2/32/30	4128	1
Passenger	Narrowbody	Boeing 737-700 MAX	730	D	LEAP-1A35A/AA/33B2/32/30	4128	2
Passenger	Narrowbody	Boeing 737-700 MAX	730	D	LEAP-1A35A/AA/33B2/32/30	4128	3
Passenger	Narrowbody	Boeing 737-700 MAX	1,095	D	LEAP-1A35A/AA/33B2/32/30	4128	4
Passenger	Narrowbody	Boeing 737-800 MAX	1,460	D	LEAP-1A35A/AA/33B2/32/30	4129	1
Passenger	Narrowbody	Boeing 737-800 MAX	1,460	D	LEAP-1A35A/AA/33B2/32/30	4129	2
Passenger	Narrowbody	Boeing 737-800 MAX	730	D	LEAP-1A35A/AA/33B2/32/30	4129	3
Passenger	Narrowbody	Boeing 737-700 with winglets	2,190	D	CFM56-7B27/3	4131	1
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	2
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	3
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	4
Passenger	Narrowbody	Boeing 737-800 Series	18,615	D	CFM56-7B26/3	2497	1
Passenger	Narrowbody	Boeing 737-800 Series	5,110	D	CFM56-7B26/3	2497	2
Passenger	Narrowbody	Boeing 737-800 Series	8,760	D	CFM56-7B26/3	2497	3
Passenger	Narrowbody	Boeing 737-800 Series	7,300	D	CFM56-7B26/3	2497	4

Table C-6 Annual Operations for 2050

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Narrowbody	Boeing 737-900-ER	5,475	D	CFM56-7B26E	4356	1
Passenger	Narrowbody	Boeing 737-900-ER	4,015	D	CFM56-7B26E	4356	2
Passenger	Narrowbody	Boeing 737-900-ER	5,110	D	CFM56-7B26E	4356	3
Passenger	Narrowbody	Boeing 757-200 Series	8,395	D	PW2037	385	4
Passenger	Widebody	Airbus A330-200 Series	365	D	Trent 772	1094	4
Passenger	Widebody	B787-8R	730	D	Trent 1000 Pkg B T1000-A/01	3996	3
Passenger	Widebody	B787-8R	2,920	D	Trent 1000 Pkg B T1000-A/01	3996	4
Passenger	Regional Jet	Embraer ERJ175	1,095	D	CF34-8E5	1771	1
Passenger	Regional Jet	Embraer ERJ175	1,095	D	CF34-8E5	1771	2
Passenger	Regional Jet	Embraer ERJ175	365	D	CF34-8E5	1771	3
Passenger	Narrowbody	Airbus A320-200 Series	365	D	V2527-A5	1019	2
Passenger	Narrowbody	Airbus A321-100 Series	365	D	CFM56-5B3/P	1031	4
Passenger	Narrowbody	Boeing 737-700 MAX	365	D	LEAP-1A35A/AA/33B2/32/30	4128	2
Passenger	Narrowbody	Boeing 737-800 MAX	365	D	LEAP-1A35A/AA/33B2/32/30	4129	3
Passenger	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	4
Passenger	Narrowbody	Boeing 737-800 Series	365	D	CFM56-7B26/3	2497	2
Passenger	Narrowbody	Boeing 737-800 Series	730	D	CFM56-7B26/3	2497	3
Passenger	Narrowbody	Boeing 737-800 Series	365	D	CFM56-7B26/3	2497	4
Passenger	Narrowbody	Boeing 737-900-ER	1,460	D	CFM56-7B26E	4356	2
Passenger	Narrowbody	Boeing 737-900-ER	365	D	CFM56-7B26E	4356	3
Passenger	Narrowbody	Boeing 737-900-ER	365	D	CFM56-7B26E	4356	4
Passenger	Widebody	Airbus A330-300 Series	365	D	Trent 772	1095	7
Passenger	Widebody	Airbus A340-300 Series	730	D	CFM56-5C4	1142	7
Passenger	Widebody	Boeing 777-200 ER	365	D	Trent 895	4213	7
Passenger	Widebody	B787-8R	730	D	Trent 1000 Pkg B T1000-A/01	3996	7
Passenger	Widebody	Boeing 787-900 Dreamliner	730	D	Trent 1000-A	4860	7
Passenger	Widebody	Boeing 787-900 Dreamliner	365	D	Trent 1000-A	4860	9

Table C-6 Annual Operations for 2050

Aircraft Group	Type of Aircraft	Airframe	Number of Operations	Op Type	Engine	AEDT Equip ID	Stage Length
Passenger	Regional Jet	Embraer ERJ175	1,825	D	CF34-8E5	1771	3
Other Air Taxi	Business Jet multi-engine heavy	Gulfstream V-SP	365	D	BR700-710A1-10	2432	1
Cargo	Narrowbody	Boeing 757-200 Series	365	D	PW2037	385	4
Cargo	Widebody	Boeing 767-200 Series	1,460	D	JT9D-7R4D,-7R4D1	437	3
Cargo	Widebody	Boeing 767-200 Series	1,095	D	JT9D-7R4D,-7R4D1	437	4
Cargo	Turboprop	Raytheon Beech 99	1,460	D	PT6A-27	1495	1
Cargo	Turboprop	Fairchild SA-226-TC Metro II	730	D	TPE331-11U-601G	3125	1
General Aviation	Business Jet multi-engine heavy	Cessna 560 Citation XLS	487	D	BIZMEDIUMJET_F	3634	1
General Aviation	Business Jet multi-engine heavy	Gulfstream G400	243	D	TAY611-8C	1916	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 300	487	D	HTF7350 (AS907-2-1A)	4856	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 350	487	D	HTF7350 (AS907-2-1A)	5345	1
General Aviation	Business Jet multi-engine heavy	Bombardier Challenger 600	487	D	CF34-3B	1237	1
General Aviation	Business Jet multi-engine light plus	Cessna 525B CitationJet	243	D	BIZLIGHTJET_F	3986	1
General Aviation	Business Jet multi-engine light plus	CX 750 Citation X+	487	D	AE3007C2	4249	1
Military	Narrowbody	Boeing 737-700 with winglets	365	D	CFM56-7B27/3	4131	1
Military	Multi-engine turboprop	Raytheon Super King Air 200	365	D	PT6A-61	3034	1
Helicopter		Robinson R44 Raven/Lycoming O-540-F1B5	183	D	TIO-540-J2B2	3161	1
Total			290,175				

1.1.2 Emission Factors

AEDT default emission factors were used to estimate all aircraft emissions. AEDT calculates emissions related to aircraft operations which includes emissions from taxi, aircraft engine startup, and auxiliary power units (APUs).

The four methods listed below are used by AEDT to compute airborne aircraft emissions.

- The Boeing Fuel Flow Method 2 (BFFM2) is used to compute NO_x, hydrocarbons (HC), and CO;
- A First Order Approximation (FOA) 3.0 is used to compute particulate matter below the mixing height;
- Fuel composition-based factors are used to compute SO_x, CO₂, and water (H₂O) in addition to particulate matter above the mixing height; and
- Derivative factors are used to compute non-methane hydrocarbons (NMHC), VOC, total organic compounds (TOG), and speciated organic gases.

1.1.3 Taxi/Delay

Taxi/delay emissions associated with emission inventories (EIs) are based on airport-wide taxi times. **Table C-7** shows the taxi/delay times associated with the emissions inventories. Notably, taxi/delay times for Alternative 2 and Alternative 3 would be essentially the same as times for the proposed project because the future aircraft and passenger activity levels, and key improvements such as the provision of additional gates and development of the new on-airport access road, would be comparable under both scenarios.

Table C-7 Aircraft Taxi/Delay Times for Existing/Baseline, Alternative 1 (No Project), Proposed Project, and Alternative 4 (minutes)

Project Phase	Year	Scenario	Taxi-in	Taxi-out	Total
Existing	2018	Existing/Baseline	4.2	16.9	21.0
1a	2024	Alternative 1 (No Project)	4.8	16.6	21.5
		Proposed Project	4.8	14.8	19.6
		Alternative 4	5.3	15.2	20.4
1b	2026	Alternative 1 (No Project)	4.8	17.6	22.5
		Proposed Project	4.6	15.5	20.2
		Alternative 4	4.7	15.1	19.8
2a	2030	Alternative 1 (No Project)	5.0	19.5	24.5
		Proposed Project	4.6	16.5	21.1
		Alternative 4	4.9	16.1	21.0
2b	2035	Alternative 1 (No Project)	5.0	24.7	29.7
		Proposed Project	4.8	21.1	25.9
		Alternative 4	4.9	20.2	25.2
Not applicable	2050	Alternative 1 (No Project)	5.0	24.7	29.7
		Proposed Project	4.8	21.1	25.9
		Alternative 4 4	4.9	20.2	25.2

Source: CDM Smith 2019.

Airport-specific, ground-based TIM for taxi-in, taxi-out and ground delay times were derived from the SIMMOD analysis.

Taxi/delay emissions associated with dispersion modeling are based on AEDT's Delay and Sequencing Module (DSQM). The DSQM takes into account taxiway assignments, delay, distance traveled, and aircraft ground speed.

APU and aircraft startup emissions were also estimated using AEDT defaults. Startup emissions are only inclusive of total hydrocarbons (THC), NMHC, VOC, and TOG. Because all passenger-related aircraft gates at SDIA are currently equipped with 400 hertz (Hz) electric power (i.e., "ground power") and preconditioned air (PCA) and following FAA's AQ Handbook, the analysis assumed APU usage for the passenger-related aircraft was seven minutes. For all other aircraft, APU run times were assumed to be AEDT defaults.

1.1.4 Runway Utilization

For dispersion analysis only, AEDT uses operational configurations to assign aircraft operations (i.e., arrivals and departures) to runway ends. Typically, aircraft arrive and depart into the wind. Therefore, aircraft were assigned to a runway end based on hourly wind direction. **Table C-8** shows the operational configurations used to assign aircraft to runway ends.

Table C-8 Runway Utilization

Runway End	Aircraft Size	Arrival Percentage	Departure Percentage	Wind Direction (deg)
27	Heavy	100	100	181 – 359
	Large			
	Small			
9	Heavy	100	100	0 - 180
	Large			
	Small			

Source : KB Environmental Sciences, Inc. 2019.

1.1.5 Temporal Factors

Temporal factors (also referred to as profiles) are used to describe the relationship of activity levels in one period of time to another (i.e., the relationship of the activity during 15-minute to the activity during a 24-hour period). Temporal factors represent a fraction to the peak period. Thus, annual operations can be represented as a weekly, daily, and quarter hour activity. The use of temporal factors gives the model the ability to more accurately reflect real world conditions.

Aircraft temporal profiles that reflect the variation in operations by month, day and quarter hour were derived from gate schedules developed in support of the ADP. **Tables C-9** through **C-11** presents the aircraft operational temporal factors for quarter hourly-arrivals and departures, daily operations, and monthly operations, respectively.

Table C-9 Monthly Operational Profiles for Aircraft

Month	All Aircraft
January	0.85
February	0.74
March	0.90
April	0.92
May	0.91
June	0.95
July	1.00
August	0.98
September	0.90
October	0.93
November	0.89
December	0.90

Source : KB Environmental Sciences, Inc., 2019.

Table C-10 Daily Operational Profiles for Aircraft

Day	All Aircraft
Monday	0.99
Tuesday	0.95
Wednesday	0.96
Thursday	0.99
Friday	1.00
Saturday	0.83
Sunday	0.93

Source : KB Environmental Sciences, Inc., 2019.

Table C-11 Quarter Hourly Operational Profiles for Aircraft

Time	Operational Profile		Time	Operational Profile		Time	Operational Profile
0:00	0.03		8:15	0.86		16:45	0.77
0:15	0.03		8:30	0.86		17:00	0.81
0:30	0.03		9:00	0.81		17:15	0.81
0:45	0.03		9:15	0.81		17:30	0.81
1:00	0.01		9:30	0.81		18:15	0.74
1:15	0.01		9:45	0.81		18:30	0.74
1:30	0.01		10:00	1.00		18:45	0.74
1:45	0.01		10:15	1.00		19:00	0.81
2:00	0.00		10:30	1.00		19:15	0.81
2:15	0.00		10:45	1.00		19:30	0.81
2:30	0.00		11:00	0.93		19:45	0.81
2:45	0.00		11:15	0.93		20:00	0.70
3:00	0.00		11:30	0.93		20:15	0.70
3:15	0.00		11:45	0.93		20:30	0.70
3:30	0.00		12:00	0.90		20:45	0.70
3:45	0.00		12:15	0.90		21:00	0.67
4:00	0.01		12:30	0.90		21:15	0.67
4:15	0.01		12:45	0.90		21:30	0.67
4:30	0.01		13:00	0.84		21:45	0.67
4:45	0.01		13:15	0.84		22:00	0.72
5:00	0.04		13:30	0.84		22:15	0.72
5:15	0.04		13:45	0.84		22:30	0.72
5:30	0.04		14:00	0.83		22:45	0.72
5:45	0.04		14:15	0.83		23:00	0.33
6:00	0.60		14:30	0.83		23:15	0.33
6:15	0.60		14:45	0.83		23:30	0.33
6:30	0.60		15:00	0.81		23:45	0.33
6:45	0.60		15:15	0.81			
7:00	0.83		15:30	0.81			
7:15	0.83		15:45	0.81			
7:30	0.83		16:00	0.77			
7:45	0.83		16:15	0.77			
8:00	0.86		16:30	0.77			
8:45	0.86		17:45	0.81			
9:00	0.81		18:00	0.74			

Source : KB Environmental Sciences, Inc., 2019.

1.2 Stationary Sources

Stationary sources were modeled using project-specific data and AEDT; and consisted of boilers, cooling towers, emergency generators, and fuel storage/transfer facilities. The existing Central Utility Plant (CUP), located along Airport Terminal Road adjacent to the T2 Parking Plaza, contains boilers, chillers, and cooling towers providing heated and chilled water for building heating and cooling. The proposed project calls for the expansion of the existing CUP which involves increasing the capacity of these units.

The total firing rate of all the existing boilers at SDIA is equal to 27.8 million British Thermal Units per hour (MMBtu/hour) (2 x 6.7 MMBtu/hour + 4 x 3.6 MMBtu/hour). The expansion of the existing CUP involves replacing aging boilers in-place (2 x 6.7 MMBtu/hour boilers) with four new boilers of firing rate 3.6 MMBtu/hour each. Thus, the new firing rate of all the boilers including the new boilers is equal to 28.8 MMBtu/hour (8 x 3.6 MMBtu/hour). **Table C-12** presents the annual natural gas usage for all boilers.

Table C-12 Annual Natural Gas Usage for Boilers (ft³)

Equipment	No Project	Proposed Project
Total Boilers	234,161,538	242,584,615

Source : KB Environmental Sciences, Inc. 2019.

As a part of the expansion of the CUP, capacity of the cooling tower would be increased from 5,000 tons to 6,250 tons. Emissions from the existing and proposed cooling towers were computed using default emission factor provided in the South Coast Air Quality Management District (AQMD) Guidelines for Calculating Emissions from Cooling Towers.¹ Emissions from the diesel emergency generators were based on an existing and future annual fuel usage of 17,550 gallons and computed using AP-42 emission factors.² Emissions from the existing and proposed fuel storage/transfer facilities were computed using the throughputs presented in **Table C-13**.

Table C-13 Annual Throughputs for Fuel Storage/Transfer Facilities (Gallons)

Equipment	2018	2024	2026	2030	2035	2050
Total Fuel Storage/Transfer Facilities	207,102,359	233,241,492	237,598,014	247,316,409	259,715,741	266,418,083

Source : KB Environmental Sciences, Inc. 2019.

With the exception of cooling towers and emergency generators, stationary sources emission factors were assumed to be the default AEDT factors.

Existing and proposed boilers, cooling towers, emergency generators and fuel storage/transfer facilities were also included in the dispersion analysis.

¹ South Coast Air Quality Management District (AQMD), Guidelines for Calculating Emissions from Cooling Towers, <http://www.aqmd.gov/docs/default-source/planning/annual-emission-reporting/guidecalcemisooltowerdec13.pdf>.

² U.S. EPA, 1999. "Compilation of Air Pollution Emission Factors. Volume 1: Stationary Point and Area Sources" AP-42, 5th Edition and Supplements, U.S. EPA, Office of Air Quality Planning and Standards, Environmental Sciences Research Laboratory, Research Triangle Park, NC.

1.3 Motor Vehicles

The motor vehicle emissions that would result from the daily operation of airport-related motor vehicles under the proposed project, No Project Alternative, and Alternatives 2 and 3 scenarios depend on several factors including the volume of vehicles, the vehicle fleet and fuel mix, the motor vehicle emission factors, travel distance, speed, and the year of analysis. These factors are obtained from several sources including the San Diego County Regional Airport Authority (SDCRAA), the traffic analysis prepared in support of the ADP (see Section 3.14, Traffic and Circulation, and Appendix R-H of the Recirculated Draft EIR), and CARB's emission factor model EMFAC2017³. **Table C-14** provides a summary of the data inputs needed to compute motor vehicle emissions, their descriptions, sources, and assumptions.

Table C-14: Summary of Motor Vehicle Emissions Data Inputs

Data	Description	Source	Assumptions
Vehicle Fleet Mix	Percent of each vehicle type operating on on-airport and off-airport roads.	SDCRAA ^a	Fleet mix is representative of the traffic in the vicinity of the airport. All applicable California policies are applied.
Fuel Mix	Percent of fuel usage for each vehicle type (e.g. gasoline, diesel, biodiesel, electric etc.)	SDCRAA	Fuel mix is representative of the traffic in the vicinity of the airport. All applicable California policies are applied.
Roadways	The network of roadway segments on which traffic volume were obtained	Traffic Analysis	Roadways analyzed are representative of where project impacts will occur.
Off-Airport Daily Traffic Volumes	Traffic volumes on roads in the vicinity of the airport. Volumes were developed in total and for airport- and non-airport-related traffic.	Traffic Analysis	Data provided is representative of daily average conditions and can be applied annually.
On-Airport Daily Traffic Volumes	Traffic volumes occurring on road segments on airport property including terminal roadways, parking facilities, and rental car facilities.	Traffic Analysis	Data provided is representative of daily conditions and can be applied annually.
Roadway Lengths	Lengths of roadway segments both on-and off-airport.	Determined using GIS	Lengths based on GIS locations are sufficiently accurate.
Emission factors	The rate a pollutant is released into the air by a source.	EMFAC2017 ^b	The San Diego Air Basin is used for representative emission factors.
Curbside Idle Times	Times cars are idle while waiting at the terminal curbsides for drop-offs and pick-ups.	Traffic Analysis	Idle times occur at terminal curbsides.
Parking Facility Traffic	Traffic counts in and out of parking facilities	SDCRAA	Traffic counts provided for July 2018 are representative conditions.

Source: KB Environmental Sciences, Inc., 2019.

^aSan Diego County Regional Airport Authority

^bCARB, EMFAC2017 Volume III – Technical Documentation Version 1.0.7, July 2018.

³ CARB, EMFAC2017 Volume III – Technical Documentation Version 1.0.7, <https://ww3.arb.ca.gov/msei/downloads/emfac2017-volume-iii-technical-documentation.pdf>, July 2018.

The following equation is used to obtain annual emissions for motor vehicles:

$$\text{Motor Vehicle Emissions (Tons/year)} = \text{Emission Factor (g/mile)} \times \text{vehicle miles travelled per day} \times (365 \text{ days/year}) \times (1 \text{ pound}/453.59 \text{ grams}) \times (1 \text{ ton}/2,000 \text{ pounds})$$

1.3.1 Fleet and Fuel Mix

The emission factors for motor vehicles on roadways in the vicinity of SDIA (both on- and off-airport) were based on data from EMFAC and the SDCRAA. The vehicle categories were passenger cars, light duty trucks (i.e. vans, pickup trucks), shuttle buses (with less than 20 seats), and commercial buses (with more than 20 seats). The fuel types considered for each vehicle type was gasoline, diesel, hybrids, compressed natural gas (CNG), biodiesel, propane and electric.

The recent State of California mandate for airport shuttles to transition to all-electric (i.e., zero emission vehicles (ZEVs) by 2035 were also considered.⁴ The mandate for the transition of airport shuttles stipulates that by 2027, 33 percent of the shuttles be ZEVs, by 2031 66 percent will be ZEVs, and by 2035 all shuttles will be ZEVs. This initiative is considered for the composite emission factors for each applicable year. Also considered for Alternative 4 is the inclusion of the shuttle service between the Old Town Transit Center and SDIA terminals. The shuttle buses will all be electric and serve to lower passenger cars traveling to the Airport beginning in 2020. These initiatives are considered in both the fuel mix and daily traffic volumes. Both of these data inputs, therefore, vary by scenario (i.e., No Project Alternative, Proposed Project, and Alternative 4) and analysis year.

The mandate for public buses to transition was also considered. The Innovative Clean Transit (ICT) regulation was adopted in December 2018 and requires all public transit agencies to gradually transition to a 100 percent zero-emission bus (ZEB) fleet. Beginning in 2029, 100 percent of new purchases by transit agencies must be ZEBs, with a goal for full transition by 2040. It applies to all transit agencies that own, operate, or lease buses with a gross vehicle weight rating (GVWR) greater than 14,000 lbs. It includes standard, articulated, over-the-road, double-decker, and cutaway buses.⁵

Table C-15 and **Table C-16** present the vehicle categories considered, and the fleet percentages by fuel type for each analysis year and scenario. Alternative 1 (No Project) and the Proposed Project have the same vehicle and fuel mixes. Only Alternative 4 differs due to the inclusion of the shuttle service between the Old Town Transit Center and SDIA terminals. The Alternative 4 vehicle and fuel mix therefore accounts for reduced passenger cars and light duty vehicles and increased electric shuttles.

⁴ California Air Resources Board Bulletin. California transitioning to all-electric public bus fleet by 2040. December 14, 2018. Available: <https://ww2.arb.ca.gov/news/california-transitioning-all-electric-public-bus-fleet-2040>.

⁵ California Air Resources Board. Innovative Clean Transit (ICT) Regulation Fact Sheet. May 16, 2019. Available: <https://ww2.arb.ca.gov/resources/fact-sheets/innovative-clean-transit-ict-regulation-fact-sheet>.

Table C-15. Vehicle and Fuel Mixes for the No-Project Alternative and Proposed Project

Vehicle	Fuel	Percentage of Vehicle/Fuel Type by Analysis Year					
		2018	2024	2026	2030	2035	2050
Passenger Cars	Gas	59.52	59.52	59.52	59.52	59.52	59.52
	Hybrid	15.79	15.79	15.79	15.79	15.79	15.79
	CNG	0.004	0.004	0.004	0.004	0.004	0.004
Light Duty Trucks	Gas	17.79	17.79	17.79	17.79	17.79	17.79
	Diesel	0.03	0.03	0.03	0.03	0.03	0.03
	CNG	0.22	0.22	0.22	0.22	0.22	0.22
	Biodiesel	0.05	0.05	0.05	0.05	0.05	0.05
	Hybrid	0.01	0.01	0.01	0.01	0.01	0.01
	Propane	0.01	0.01	0.01	0.01	0.01	0.01
Shuttle Buses	Gas	2.59	2.59	2.59	1.73	--	--
	Biodiesel	0.19	0.19	0.19	0.13	--	--
	CNG	0.25	0.25	0.25	0.17	--	--
	Flex Fuel	0.06	0.06	0.06	0.04	--	--
	Diesel	0.06	0.06	0.06	0.04	--	--
	Electric	--	--	--	1.32	4.01	4.01
Commuter Buses	Gas	0.02	0.02	0.02	0.02	0.02	--
	Propane	2.04	2.04	2.04	2.04	2.04	--
	CNG	0.51	0.51	0.51	0.51	0.51	--
	Electric	0.00	0.00	0.00	0.00	0.00	2.57
Total		100.00	100.00	100.00	100.00	100.00	100.00
Source: KB Environmental Sciences, Inc. 2019, and San Diego County Regional Airport Authority. Note: Values subject to rounding. CNG = Compressed Natural Gas. -- = Not applicable.							

Table C-16. Vehicle and Fuel Mixes for Alternative 4

Vehicle	Fuel	Percentage of Vehicle/Fuel Type by Analysis Year					
		2018	2024	2026	2030	2035	2050
Passenger Cars	Gas	59.52	57.61	57.61	57.61	57.61	57.61
	Hybrid	15.79	15.28	15.28	15.28	15.28	15.28
	CNG	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Light Duty Trucks	Gas	18	15	15	15	15	15
	Diesel	0.03	0.03	0.03	0.03	0.03	0.03
	CNG	0.22	0.19	0.19	0.19	0.19	0.19
	Biodiesel	0.05	0.05	0.05	0.05	0.05	0.05
	Hybrid	0.01	0.01	0.01	0.01	0.01	0.01
	Propane	0.01	0.01	0.01	0.01	0.01	0.01
Shuttle Buses	Gas	2.6	--	--	--	--	--
	Biodiesel	0.19	--	--	--	--	--
	CNG	0.25	--	--	--	--	--
	Flex Fuel	0.06	--	--	--	--	--
	Diesel	0.06	--	--	--	--	--
	Electric	--	8.84	8.84	8.84	8.84	8.84
Commuter Buses	Gas	0.02	0.02	0.02	0.02	0.02	--
	Propane	2.04	2.04	2.04	2.04	2.04	--
	CNG	0.51	0.51	0.51	0.51	0.51	--
	Electric	--	--	--	--	--	2.57
Total		100.00	100.00	100.00	100.00	100.00	100.00
Source: KB Environmental Sciences, Inc. 2019, and San Diego County Regional Airport Authority. Note: Values subject to rounding. CNG = Compressed Natural Gas. -- = Not applicable.							

1.3.2 Emission Factors

CARB's EMFAC2017 model was used to derive the emission factors for motor vehicles. The model includes updates to emission factors based on new vehicle testing data and the incorporation of state and federal regulations. New forecasting methods reflect emission benefits of CARB's recent rulemakings including on-road diesel fleet rules, California's Advanced Clean Car Standards (ACC), and the Smartway/Phase I Heavy Duty Vehicle Greenhouse Gas Regulation. In general, the current model predicts lower emissions after 2020.⁶ Notably, the models used to estimate air emissions are approved by regulatory agencies and include current and future regulatory emission controls. These data are embedded within the model. Changes to the emission factors that are a result of these emission controls can only be made by the regulatory agencies that develop the models.

Using EMFAC2017, a composite emission factor representative of the vehicle and fuel mix at an aggregated speed was calculated for each pollutant, scenario, and analysis year. **Table C-17** and **Table C-18** present the cruising speed and idle (terminal curbside) motor vehicle emission factors for 2018, 2024, 2026, 2030, 2035, and 2050, for Alternative 1 (No Project)/the proposed project and Alternative 4, respectively.

⁶ CARB, EMFAC2014 Volume III – Technical Documentation Version 1.0.7, <https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf>, May 2015.

Table C-17. EMFAC2017 Composite Cruise Emission Factors (grams/mile)

Year	Pollutant Emissions (grams/mile)								
	VOC	NO _x	PM ₁₀	PM _{2.5}	CO	SO _x	CO ₂	CH ₄	N ₂ O
Alternative 1 (No Project) and Proposed Project									
2018	0.04	0.16	0.05	0.05	1.15	0.003	362	0.06	0.02
2024	0.01	0.07	0.05	0.04	0.59	0.003	314	0.04	0.02
2026	0.01	0.07	0.05	0.04	0.53	0.003	299	0.04	0.01
2030	0.01	0.04	0.05	0.04	0.43	0.002	262	0.04	0.01
2035	0.003	0.03	0.04	0.04	0.36	0.002	223	0.03	0.01
2050	0.002	0.02	0.04	0.03	0.32	0.002	182	0.00	0.00
Alternative 4									
2018	0.04	0.16	0.05	0.05	1.15	0.003	362	0.06	0.02
2024	0.01	0.05	0.04	0.04	0.52	0.003	260	0.04	0.01
2026	0.01	0.05	0.04	0.04	0.46	0.002	247	0.04	0.01
2030	0.004	0.03	0.04	0.04	0.39	0.002	226	0.03	0.01
2035	0.003	0.03	0.04	0.04	0.34	0.002	212	0.03	0.01
2050	0.002	0.01	0.04	0.03	0.30	0.002	172	0.00	0.00
Source: EMFAC2017. Notes: Alternative 4 emission factors were applied to all of the on-airport roadways anticipated to be impacted by the Old Town Trolley Shuttle Service as well as Pacific Highway and North Harbor Drive. The emissions benefit (i.e., reduction in emissions) with the Old Town Trolley Shuttle was accounted for by a reduction in the number of passenger-related motor vehicle trips on these roadways. For all other off-airport roadways, the emission factors were the same both with and without the Proposed Project.									

Table C-18 EMFAC2017 Composite Idle Emission Factors (grams/mile)

Year	Pollutant Emissions (grams/mile)								
	VOC	NO _x	PM ₁₀	PM _{2.5}	CO	SO _x	CO ₂	CH ₄	N ₂ O
Alternative 1 (No Project) and Proposed Project									
2018	2.68	3.31	0.20	0.19	29.85	0.08	8,189	2.64	1.50
2024	0.60	1.84	0.14	0.13	14.29	0.07	7,155	1.47	1.39
2026	0.48	1.71	0.12	0.12	12.97	0.06	6,797	1.33	1.33
2030	0.31	1.10	0.07	0.06	10.19	0.05	5,489	0.38	0.84
2035	0.18	0.45	0.05	0.05	6.84	0.05	4,933	0.99	0.07
2050	0.10	0.28	0.03	0.03	6.10	0.04	4,187	0.04	0.05
Alternative 4									
2018	2.68	3.31	0.20	0.19	29.9	0.08	8,189	2.64	1.50
2024	0.51	0.81	0.13	0.12	10.1	0.06	5,782	1.40	0.11
2026	0.40	0.69	0.11	0.11	8.9	0.05	5,485	1.27	0.10
2030	0.26	0.42	0.06	0.06	7.4	0.05	4,585	0.34	0.07
2035	0.17	0.43	0.05	0.04	6.5	0.05	4,689	0.99	0.07
2050	0.10	0.26	0.03	0.03	5.8	0.04	3,958	0.04	0.05
Source: CARB's EMFAC2017.									

1.3.3 Traffic Volumes

The traffic analysis developed Average Daily Traffic (ADT) for both on-airport and off-airport roadway segments. On-airport ADT includes traffic that enters the airport roadways and travels on Terminal 1, Terminal 2 roads, and associated parking facilities and curbsides. **Figure C-1** shows the on-airport roadways analyzed. The off-airport roadway network extends south of the airport to Harbor Island Drive, north to Pacific Highway, and east to India Street. Also included is North Harbor Drive from Scott Street to Ash Street. The evaluated off-airport roadways are shown on **Figure C-2**. The on-airport ADT are provided in **Tables C-19, C-20, and C-21**. Off-airport ADT are provided in **Tables C-22, C-23, and C-24**.

Figure C-1: On-Airport Roadways

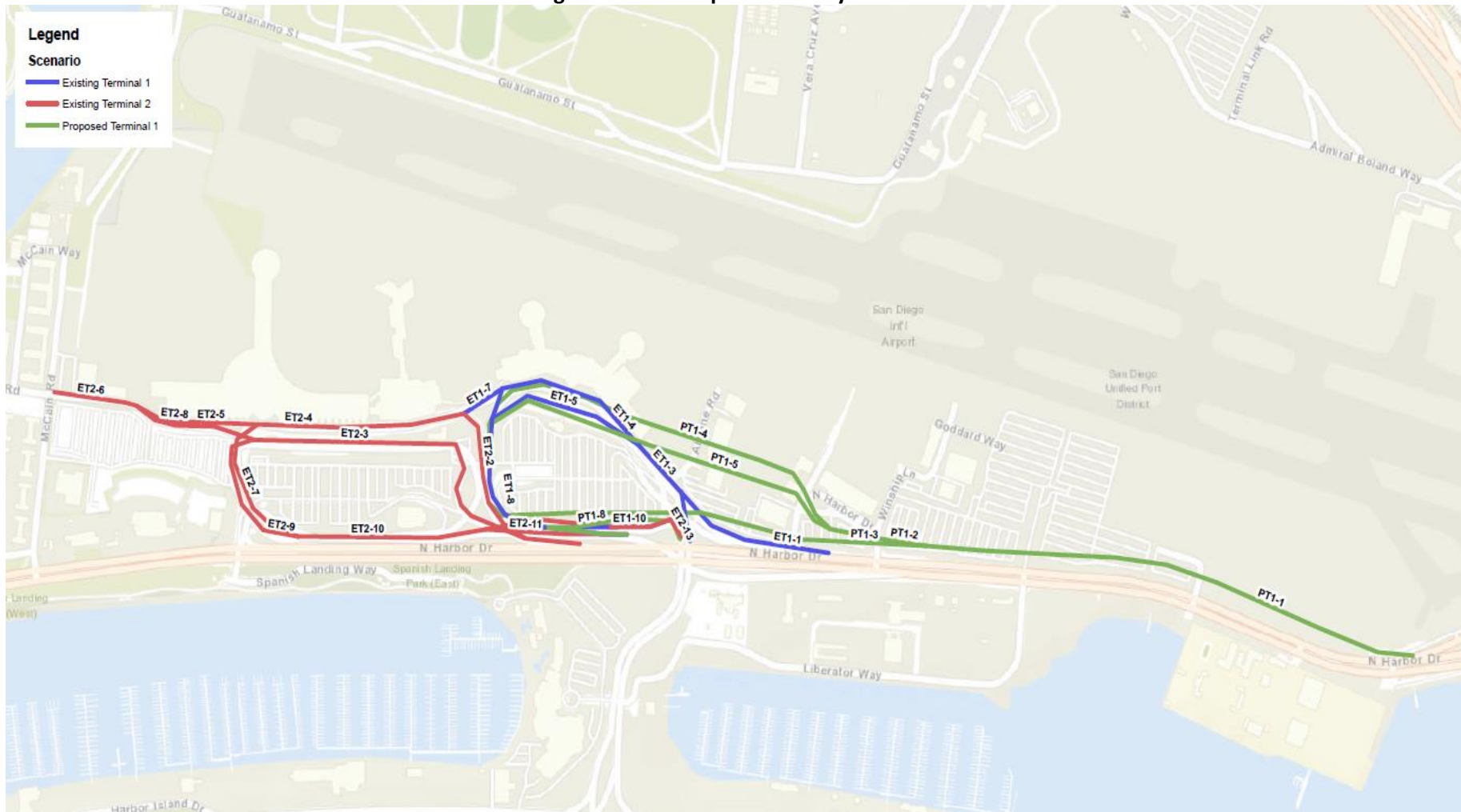
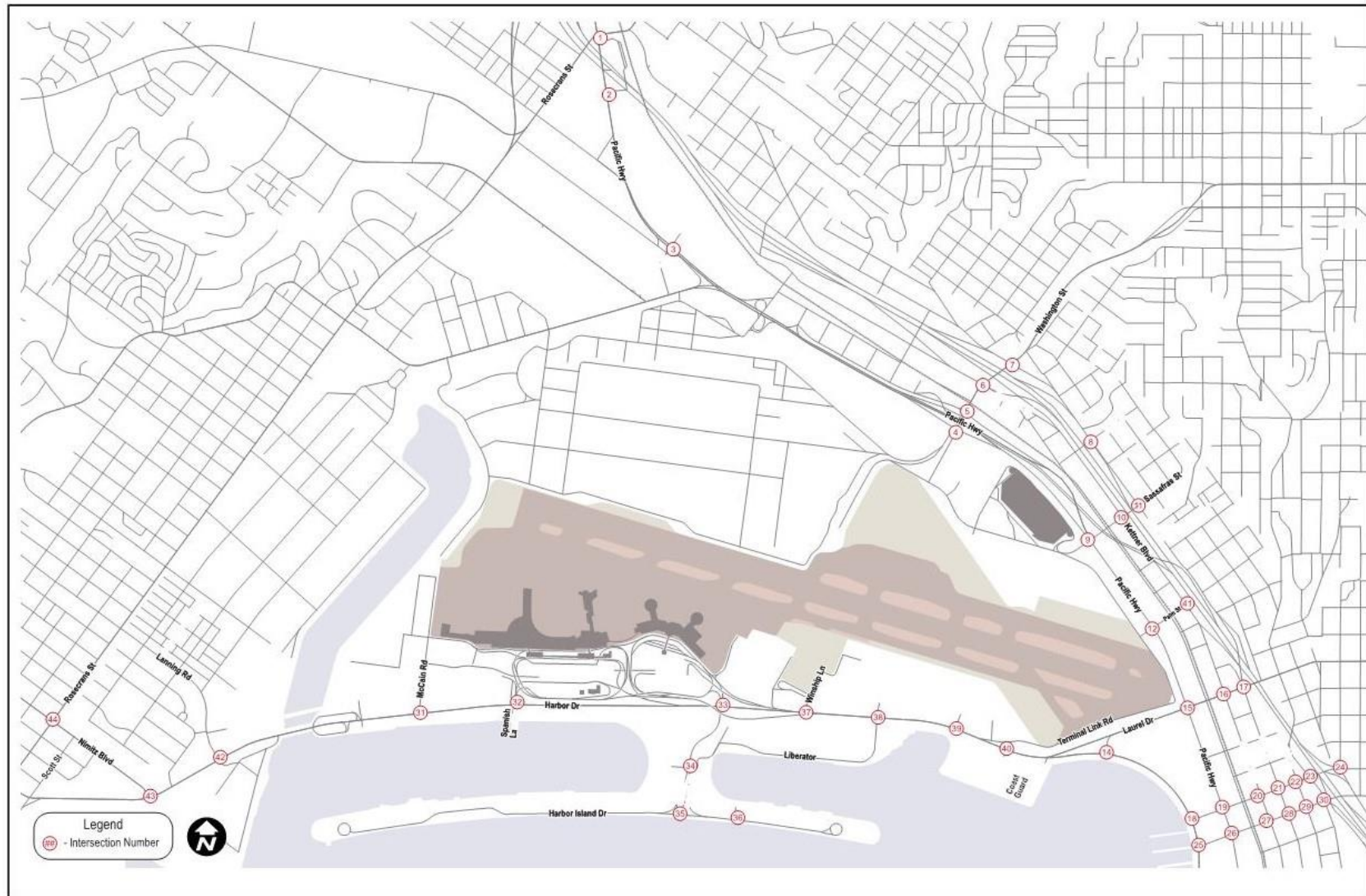


Figure C-2. Off-Airport Roadway Analysis Locations



Source: Kimley-Horn, 2019

Table C-19. Alternative 1 (No Project) On-Airport Daily Traffic Volumes

LINK ID	Analysis Years					
	2018	2024	2026	2030	2035	2050
ET1-1	17,050	15,857	17,391	19,267	21,313	21,313
ET1-10	6,392	5,945	6,520	7,223	7,990	7,990
ET1-2	2,319	2,157	2,365	2,620	2,899	2,899
ET1-3	19,369	18,013	19,756	21,887	24,211	24,211
ET1-4	19,333	17,980	19,720	21,846	24,166	24,166
ET1-5	1,823	1,695	1,859	2,060	2,279	2,279
ET1-6	17,159	15,958	17,502	19,390	21,449	21,449
ET1-7	2,174	2,022	2,217	2,457	2,718	2,718
ET1-8	18,982	17,653	19,362	21,450	23,728	23,728
ET1-9	42,956	39,949	43,815	48,540	53,695	53,695
ET2-1	16,429	15,279	16,758	18,565	20,536	20,536
ET2-10	28,154	26,183	28,717	31,814	35,193	35,193
ET2-11	26,476	24,623	27,006	29,918	33,095	33,095
ET2-12	3,830	3,562	3,907	4,328	4,788	4,788
ET2-13	6,686	6,218	6,820	7,555	8,358	8,358
ET2-2	6,872	6,391	7,009	7,765	8,590	8,590
ET2-3	9,557	8,888	9,748	10,799	11,946	11,946
ET2-4	9,466	8,803	9,655	10,697	11,833	11,833
ET2-5	2,000	1,860	2,040	2,260	2,500	2,500
ET2-6	4,637	4,312	4,730	5,240	5,796	5,796
ET2-7	7,466	6,943	7,615	8,437	9,333	9,333
ET2-8	2,637	2,452	2,690	2,980	3,296	3,296
ET2-9	17,996	16,736	18,356	20,335	22,495	22,495
T1-P	8,025	8587	7865	6982	6019	6019
T2-PG	12,483	13357	12233	10860	9362	9362
T2-PL	7,750	8292	7595	6742	5812	5812

Source: Kimley-Horn, 2019.

ET1 = Existing Terminal 1 ET2 = Existing Terminal 2 T1-P = Terminal 1 Parking T2-PG = Terminal 2 Parking Garage T2-PL = Terminal 2 Parking Plaza PT1 = Proposed Terminal 1 T1-PF = Proposed Future Terminal 1 Parking Structure

Table C-20. Proposed Project On-Airport Daily Traffic Volumes

LINK ID	Analysis Years				
	2024	2026	2030	2035	2050
ET2-10	18,116	19,722	22,473	24,767	25,594
ET2-11	14,493	15,778	17,979	19,814	20,475
ET2-12	1,811	1,972	2,247	2,476	2,559
ET2-2	4,971	5,411	6,166	6,795	7,022
ET2-3	6,813	7,417	8,452	9,314	9,625
ET2-4	4,924	5,360	6,108	6,732	6,956
ET2-5	2,184	2,377	2,709	2,985	3,085
ET2-6	3,763	4,096	4,668	5,144	5,316
ET2-7	5,203	5,664	6,454	7,113	7,350
ET2-8	1,579	1,719	1,959	2,159	2,231
ET2-9	8,950	9,743	11,102	12,235	12,644
PT1-1	41,636	45,325	51,650	56,920	58,821
PT1-2	19,293	21,003	23,934	26,376	27,257
PT1-3	22,217	24,186	27,561	30,373	31,387
PT1-4	11,706	12,743	14,521	16,003	16,538
PT1-5	10,374	11,294	12,869	14,183	14,657
PT1-6	7,216	7,855	8,951	9,865	10,194
PT1-7	38,013	41,381	47,156	51,967	53,703
PT1-8	3,468	3,775	4,302	4,741	4,900
T1-PF	8587	7865	6982	6019	6019
T2-PG	13357	12233	10860	9362	9362
T2-PL	8292	7595	6742	5812	5812
Source: Kimley-Horn, 2019. ET1 = Existing Terminal 1 ET2 = Existing Terminal 2 T1-P = Terminal 1 Parking T2-PG = Terminal 2 Parking Garage T2-PL = Terminal 2 Parking Plaza PT1 = Proposed Terminal 1 T1-PF = Proposed Future Terminal 1 Parking					

Table C-21. Alternative 4 On-Airport Daily Traffic Volumes

LINK ID	Analysis Years				
	2024	2026	2030	2035	2050
ET2-10	13,393	14,677	16,328	17,979	18,580
ET2-11	1,674	1,834	2,041	2,247	2,322
ET2-12	4,593	5,034	5,600	6,166	6,372
ET2-2	6,296	6,899	7,675	8,452	8,734
ET2-3	4,550	4,986	5,547	6,108	6,312
ET2-4	2,018	2,211	2,460	2,709	2,799
ET2-5	3,477	3,810	4,239	4,668	4,824
ET2-6	4,808	5,269	5,862	6,454	6,670
ET2-7	1,459	1,599	1,779	1,959	2,024
ET2-8	8,270	9,063	10,083	11,102	11,473
ET2-9	38,474	42,163	46,907	51,650	53,375
PT1-1	17,828	19,538	21,736	23,934	24,733
PT1-2	20,647	22,626	25,172	27,717	28,643
PT1-3	10,817	11,854	13,188	14,521	15,006
PT1-4	9,586	10,506	11,687	12,869	13,299
PT1-5	6,668	7,307	8,129	8,951	9,250
PT1-6	35,126	38,494	42,825	47,156	48,731
PT1-7	3,205	3,512	3,907	4,302	4,446
PT1-8	8,587	7,865	6,982	6,019	6,019
T1-PF	13,357	12,233	10,860	9,362	9,362
T2-PG	8,292	7,595	6,742	5,812	5,812
T2-PL	13,393	14,677	16,328	17,979	18,580
Source: Kimley-Horn, 2019. ET1 = Existing Terminal 1 ET2 = Existing Terminal 2 T1-P = Terminal 1 Parking T2-PG = Terminal 2 Parking Garage T2-PL = Terminal 2 Parking Plaza PT1 = Proposed Terminal 1 T1-PF = Proposed Future Terminal 1 Parking					

Table C-22. Alternative 1 (No Project) Off-Airport Daily Traffic Volumes

Roadway	Roadway Segment	Existing			2024			2026			2030			2035			2050		
		Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.
Pacific Highway	Kurtz St to Barnett Ave	21,780	2,580	19,200	23,243	2,883	20,360	23,698	3,108	20,590	24,579	3,523	21,056	25,516	3,864	21,653	28,648	3,993	24,784
	Barnett Ave to Washington St	51,778	4,158	47,620	62,035	5,406	56,630	63,637	5,789	57,848	65,612	6,518	59,095	67,847	7,155	60,692	71,910	7,394	64,755
	Washington St to Sassafras St	14,219	4,872	9,347	15,308	4,684	10,625	15,869	5,089	10,780	16,907	5,812	11,094	20,595	6,368	14,228	38,904	6,581	32,536
	Sassafras St to Palm St	18,988	9,991	8,997	21,811	11,315	10,496	22,892	12,191	10,701	24,927	13,810	11,117	26,798	15,147	11,650	29,605	15,653	14,458
	Palm St to Laurel St	20,447	12,428	8,019	23,029	13,657	9,372	24,332	14,735	9,596	26,778	16,716	10,062	30,445	18,331	12,114	37,047	18,944	18,716
	Laurel Dr to Juniper St	10,478	6,924	3,554	14,119	7,964	6,156	14,873	8,574	6,299	16,319	9,706	6,613	18,749	10,647	8,102	22,270	11,002	11,623
Kettner Blvd	Vine St to Sassafras St	26,492	18,117	8,375	33,140	19,025	14,115	35,468	20,574	14,894	40,762	23,391	17,370	45,494	25,644	19,850	39,871	26,500	14,227
	Sassafras St to Palm St	18,406	15,838	2,568	30,000	16,935	13,065	32,163	18,298	13,865	37,279	20,785	16,495	43,417	22,789	20,629	44,109	23,550	21,320
	Palm St to Laurel St	18,406	10,719	7,687	24,101	10,304	13,797	25,825	11,196	14,629	30,054	12,787	17,267	32,581	14,009	18,572	33,977	14,477	19,968
India St	Sassafras St to Laurel St	14,465	11,303	3,162	22,494	16,935	5,559	24,526	18,298	6,229	29,270	20,785	8,485	31,831	22,789	9,042	34,348	23,550	11,559
	Laurel St to Juniper St	3,884	0	3,884	4,022	0	4,022	4,063	0	4,063	4,144	0	4,144	4,249	0	4,249	4,579	0	4,579
Washington St	West of Pacific Hwy	4,847	2,683	2,164	6,383	4,289	2,094	6,771	4,558	2,214	7,545	5,091	2,454	8,315	5,596	2,720	9,971	5,782	4,376
	Hancock St to San Diego Ave	22,972	3,397	19,575	25,553	3,567	21,986	26,315	3,858	22,457	27,743	4,386	23,357	28,841	4,808	24,033	31,132	4,969	26,324
	East of India St	24,710	3,397	21,313	29,954	3,567	26,386	30,814	3,858	26,956	32,460	4,386	28,074	33,677	4,808	28,869	36,344	4,969	31,536
Admiral Boland Wy	Washington St to Terminal Link Rd	13,099	13,099	0	21,786	20,942	844	23,235	22,251	984	26,124	24,857	1,267	28,949	27,319	1,629	31,006	28,232	3,686
	Terminal Link Rd to Pacific Hwy	13,099	13,099	0	21,951	20,942	1,009	23,402	22,251	1,151	26,294	24,857	1,437	29,124	27,319	1,804	31,194	28,232	3,874
Sassafras St	Pacific Hwy to Kettner Blvd	15,983	12,852	3,131	22,686	18,994	3,692	24,096	20,238	3,858	26,865	22,672	4,194	33,156	24,908	8,248	35,627	25,740	10,719

Roadway	Roadway Segment	Existing			2024			2026			2030			2035			2050		
		Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.
Palm St	Pacific Hwy to Kettner Blvd	1,940	1,700	240	7,891	2,342	5,550	8,198	2,544	5,653	8,722	2,906	5,816	12,648	3,184	9,465	13,270	12,675	682
Laurel St	Harbor Dr to Pacific Hwy	35,441	32,004	3,437	50,475	40,063	10,411	55,367	43,524	11,844	66,248	49,705	16,543	72,351	54,456	17,895	78,436	56,275	23,980
	Pacific Hwy to India St	21,042	16,552	4,490	25,245	16,213	9,032	27,341	17,598	9,744	32,165	20,079	12,086	34,753	22,001	12,751	37,587	22,736	15,586
	India St to State St/ Reynard Wy	14,072	3,397	10,675	14,495	3,567	10,928	14,929	3,858	11,072	15,748	4,386	11,362	16,543	4,808	11,735	17,879	4,969	13,071
Hawthorn St	Harbor Dr to Pacific Hwy	26,337	16,566	9,771	27,940	15,924	12,016	29,604	17,302	12,302	32,644	19,762	12,882	38,044	21,651	16,394	41,328	22,374	19,677
	Pacific Hwy to India St	30,936	16,566	14,370	33,178	15,924	17,254	35,637	17,302	18,334	41,439	19,762	21,676	55,852	21,651	34,202	60,272	22,374	38,621
	India St to State St	30,936	16,566	14,370	33,715	15,924	17,791	36,250	17,302	18,948	42,026	19,762	22,264	56,370	21,651	34,719	60,829	22,374	39,178
	State St to Albatross St	10,483	0	10,483	10,856	0	10,856	10,965	0	10,965	11,185	0	11,185	11,468	0	11,468	12,358	0	12,358
Grape St	Harbor Dr to Pacific Hwy	23,826	19,002	4,824	28,409	18,266	10,143	30,920	19,847	11,073	36,884	22,668	14,216	53,203	24,835	28,369	57,465	25,664	32,630
	Pacific Hwy to India St1	28,167	19,002	9,165	38,686	18,266	20,419	41,299	19,847	21,452	47,472	22,668	24,804	62,486	24,835	37,652	67,469	25,664	42,635
	India St to State St	32,386	19,002	13,384	48,045	18,266	29,779	52,391	19,847	32,544	59,646	22,668	36,978	77,125	24,835	52,291	83,245	25,664	58,411
	Albatross St to Front St1	2,172	0	2,172	3,138	0	3,138	3,415	0	3,415	4,413	0	4,413	5,555	0	5,555	5,986	0	5,986
North Harbor Dr	Scott Rd to Nimitz Blvd2	11,759	2,923	8,836	16,522	2,810	13,712	16,932	3,053	13,879	17,704	3,487	14,216	18,470	3,821	14,649	19,962	3,948	16,142
	Nimitz Blvd to Laning Rd2	19,644	8,770	10,874	25,941	8,431	17,511	26,934	9,160	17,774	28,770	10,462	18,308	30,454	11,462	18,992	32,993	11,845	21,531
	Laning Rd to McCain Rd	28,798	11,694	17,104	30,248	11,241	19,008	32,003	12,213	19,789	36,245	13,950	22,296	38,414	15,283	23,131	41,559	15,793	26,276
	McCain Rd to Spanish Landing	29,392	7,980	21,412	30,335	11,241	19,094	32,150	12,213	19,937	36,394	13,950	22,445	38,473	15,283	23,190	41,334	15,793	26,051
	Spanish Landing to Harbor Island Dr	30,278	5,732	24,546	44,351	24,038	20,313	47,703	26,947	20,756	52,226	30,212	22,014	55,943	33,251	22,692	61,567	34,362	27,205

Roadway	Roadway Segment	Existing			2024			2026			2030			2035			2050		
		Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.
	Harbor Island Dr to Winship Ln2	77,384	21,445	55,939	49,996	31,387	18,609	57,042	34,417	22,625	75,552	38,130	37,422	80,650	42,178	38,472	90,143	43,587	46,556
	Winship Ln to Liberator Way	89,066	75,645	13,421	101,911	74,963	26,948	113,229	81,791	31,438	139,501	92,133	47,368	151,416	101,378	50,038	173,618	104,764	68,854
	Liberator Way to Cell Phone Lot	94,942	75,645	19,297	105,851	77,239	28,612	117,407	84,288	33,119	143,983	94,900	49,083	156,233	104,438	51,795	178,675	107,926	70,749
	Cell Phone Lot to Laurel St/ Solar Turbines	95,096	87,131	7,965	109,443	80,122	29,321	121,400	87,450	33,950	148,564	98,403	50,161	161,504	108,313	53,191	185,076	111,931	73,145
	Laurel St/ Solar Turbines to W Laurel St	76,603	70,000	6,603	65,744	41,000	24,744	73,805	44,542	29,263	96,120	50,867	45,252	103,727	55,729	47,997	114,246	57,591	58,516
	Laurel St to Hawthorn St	59,521	43,364	16,157	66,921	41,684	25,237	73,129	45,291	27,838	88,614	51,730	36,883	116,755	56,674	60,082	125,941	58,567	69,267
	Hawthorn St to Grape St1	37,881	26,798	11,083	43,369	25,760	17,609	47,956	27,989	19,967	60,489	31,968	28,521	82,007	35,023	46,983	88,165	36,193	53,142
	Grape St to Ash St1	20,437	7,796	12,641	22,096	7,494	14,602	23,606	8,142	15,464	27,770	9,300	18,470	29,241	10,189	19,053	31,420	10,529	21,231
Harbor Island Dr	Harbor Dr to Old Rent A Car Access	12,743	1,132	11,611	13,543	1,189	12,354	17,419	1,286	16,133	32,445	1,462	30,983	32,936	1,603	31,334	34,097	1,656	32,494
	West of Harbor Island Dr	7,661	1,132	6,529	13,556	1,189	12,367	13,788	1,286	12,502	14,238	1,462	12,776	14,730	1,603	13,127	15,891	1,656	14,289
	Harbor Island Dr to Parking Lot	4,801	0	4,801	6,902	0	6,902	7,013	0	7,013	7,153	0	7,153	8,044	0	8,044	13,296	0	13,296
	East of Parking Lot	3,929	0	3,929	6,902	0	6,902	7,013	0	7,013	7,153	0	7,153	8,044	0	8,044	13,296	0	13,296
Source: Kimley-Horn, 2019.																			

Table C-23. Proposed Project Off-Airport Daily Traffic Volumes

Roadway	Roadway Segment	Existing			2024			2026			2030			2035			2050		
		Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.
Pacific Highway	Kurtz St to Barnett Ave	21,780	2,580	19,200	23,148	2,883	20,360	23,594	3,108	20,590	24,463	3,523	21,056	25,389	3,864	21,653	28,517	3,993	24,655
	Barnett Ave to Washington St	51,778	4,158	47,620	61,940	5,406	56,630	63,533	5,789	57,848	65,497	6,518	59,095	67,720	7,155	60,692	71,782	7,394	64,516
	Washington St to Sassafras St	14,219	4,872	9,347	1,570	4,684	10,625	15,609	5,089	10,780	16,618	5,812	11,094	20,278	6,368	14,228	38,575	6,581	32,323
	Sassafras St to Palm St	18,988	9,991	8,997	21,454	11,315	10,496	22,503	12,191	10,701	24,493	13,810	11,117	20,322	15,147	11,650	29,115	15,653	13,952
	Palm St to Laurel St	20,447	12,428	8,019	22,553	13,657	9,372	23,813	14,735	9,596	26,149	16,716	10,062	29,810	18,331	12,114	36,393	18,944	18,104
	Laurel Dr to Juniper St	10,478	6,924	3,554	13,882	7,964	6,156	14,614	8,574	6,299	16,030	9,706	6,613	18,432	10,647	8,102	21,944	11,002	11,268
Kettner Blvd	Vine St to Sassafras St	26,492	18,117	8,375	32,379	19,025	14,115	34,633	20,574	14,894	39,836	23,391	17,370	44,478	25,644	19,850	33,321	26,500	13,371
	Sassafras St to Palm St	18,406	15,838	2,568	29,358	16,935	13,065	31,462	18,298	13,865	36,498	20,785	16,495	42,560	22,789	20,629	43,224	23,550	20,559
	Palm St to Laurel St	18,406	10,719	7,687	23,578	10,304	13,797	25,254	11,196	14,629	29,417	12,787	17,267	31,885	14,009	18,572	33,253	14,477	19,500
India St	Sassafras St to Laurel St	14,465	11,303	3,162	21,852	16,935	5,559	23,326	18,298	6,229	28,489	20,785	8,485	30,974	22,789	9,042	33,463	23,550	10,798
	Laurel St to Juniper St	3,884	0	3,884	4,022	0	4,022	4,063	0	4,063	4,144	0	4,144	4,249	0	4,249	4,579	0	4,579
Washington St	West of Pacific Hwy	4,847	2,683	2,164	6,383	4,289	2,094	6,771	4,558	2,214	7,545	5,091	2,454	8,315	5,596	2,720	9,475	5,782	4,189
	Hancock St to San Diego Ave	22,972	3,397	19,575	25,410	3,567	21,986	26,159	3,858	22,457	27,569	4,386	23,357	28,650	4,808	24,033	30,935	4,969	26,164
	East of India St	24,710	3,397	21,313	29,811	3,567	26,386	30,658	3,858	26,956	32,286	4,386	28,074	33,468	4,808	28,869	36,147	4,969	31,375
Admiral Boland Wy	Washington St to Terminal Link Rd	13,099	13,099	0	21,786	20,942	844	23,235	22,251	984	26,124	24,857	1,267	28,949	27,319	1,629	31,006	28,232	2,774
	Terminal Link Rd to Pacific Hwy	13,099	13,099	0	21,951	20,942	1,009	23,402	22,251	1,151	26,294	24,857	1,437	29,124	27,319	1,804	31,194	28,232	2,962
Sassafras St	Pacific Hwy to Kettner Blvd	15,983	12,852	3,131	22,568	18,994	3,692	23,966	20,238	3,858	26,721	22,672	4,194	32,998	24,908	8,248	35,476	25,740	9,887

Roadway	Roadway Segment	Existing			2024			2026			2030			2035			2050		
		Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.
Palm St	Pacific Hwy to Kettner Blvd	1,940	1,700	240	7,772	2,342	5,550	8,068	2,544	5,653	8,577	2,906	5,816	12,490	3,184	9,465	12,845	12,710	595
Laurel St	Harbor Dr to Pacific Hwy	35,441	32,004	3,437	48,454	40,063	10,411	53,162	43,524	11,844	63,789	49,705	16,543	69,652	54,456	17,895	75,639	56,275	22,161
	Pacific Hwy to India St	21,042	16,552	4,490	24,460	16,213	9,032	26,485	17,598	9,744	32,210	20,079	12,086	33,705	22,001	12,751	36,501	22,736	14,851
	India St to State St/ Reynard Wy	14,072	3,397	10,675	14,353	3,567	10,928	14,774	3,858	11,072	15,575	4,386	11,362	16,353	4,808	11,735	17,683	4,969	12,911
Hawthorn St	Harbor Dr to Pacific Hwy	26,337	16,566	9,771	27,131	15,924	12,016	28,722	17,302	12,302	31,661	19,762	12,882	36,965	21,651	16,394	40,204	22,374	18,954
	Pacific Hwy to India St	30,936	16,566	14,370	32,370	15,924	17,254	34,755	17,302	18,334	40,455	19,762	21,676	54,773	21,651	34,202	59,153	22,374	37,898
	India St to State St	30,936	16,566	14,370	32,906	15,924	17,791	35,368	17,302	18,948	41,043	19,762	22,264	55,290	21,651	34,719	59,710	22,374	38,455
	State St to Albatross St	10,483	0	10,483	10,356	0	10,856	10,965	0	10,965	11,185	0	11,185	11,468	0	11,468	12,358	0	12,358
Grape St	Harbor Dr to Pacific Hwy	23,826	19,002	4,824	27,482	18,266	10,143	29,908	19,847	11,073	35,756	22,668	14,216	51,965	24,835	28,369	56,182	25,664	31,801
	Pacific Hwy to India St1	28,167	19,002	9,165	37,758	18,266	20,419	40,287	19,847	21,452	46,344	22,668	24,804	61,248	24,835	37,652	66,186	25,664	41,805
	India St to State St	32,386	19,002	13,384	47,118	18,266	29,779	51,379	19,847	32,544	58,518	22,668	36,978	75,887	24,835	52,291	81,962	25,664	57,581
	Albatross St to Front St1	2,172	0	2,172	3,138	0	3,138	3,415	0	3,415	4,413	0	4,413	5,555	0	5,555	5,986	0	5,986
North Harbor Dr	Scott Rd to Nimitz Blvd2	11,759	2,923	8,836	16,379	2,810	13,712	16,776	3,053	13,879	17,530	3,487	14,216	18,279	3,821	14,649	19,765	3,948	16,014
	Nimitz Blvd to Laning Rd2	19,644	8,770	10,874	25,531	8,431	17,511	26,467	9,160	17,774	28,249	10,462	18,308	29,882	11,462	18,992	32,401	11,845	21,148
	Laning Rd to McCain Rd	28,798	11,694	17,104	29,678	11,241	19,008	31,380	12,213	19,789	35,551	13,950	22,296	37,652	15,283	23,131	40,769	15,793	25,765
	McCain Rd to Spanish Landing	29,392	7,980	21,412	29,764	11,241	19,094	16,776	12,213	19,937	35,700	13,950	22,445	37,711	15,283	23,190	40,544	15,793	25,541
	Spanish Landing to	30,278	5,732	24,546	28,626	8,759	20,313	30,424	10,189	20,756	33,082	11,647	22,014	34,772	12,715	22,692	37,309	10,683	27,205

Roadway	Roadway Segment	Existing			2024			2026			2030			2035			2050		
		Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.
	Harbor Island Dr																		
	Harbor Island Dr to Winship Ln2	77,384	21,445	55,939	18,861	252	18,609	22,893	268	22,625	37,722	299	37,422	38,801	329	38,472	46,856	299	46,556
	Winship Ln to Liberator Way	89,066	75,645	13,421	65,879	41,000	26,948	73,723	44,542	31,438	95,719	50,867	47,368	103,004	55,729	50,038	113,184	46,845	68,855
	Liberator Way to Cell Phone Lot	94,942	75,645	19,297	67,543	41,000	28,612	75,404	44,542	33,119	97,433	50,867	49,083	104,762	55,729	51,795	115,078	46,845	70,749
	Cell Phone Lot to Laurel St/ Solar Turbines	95,096	87,131	7,965	68,252	41,000	29,321	76,235	44,542	33,950	98,512	50,867	50,161	106,158	55,729	53,191	117,475	46,845	73,145
	Laurel St/ Solar Turbines to W Laurel St	76,603	70,000	6,603	63,675	41,000	24,744	71,548	44,542	29,263	93,603	50,867	45,252	100,964	55,729	47,997	111,383	57,591	56,655
	Laurel St to Hawthorn St	59,521	43,364	16,157	64,805	41,684	25,237	70,820	45,291	27,838	86,039	51,730	36,883	113,929	56,674	60,082	123,012	58,567	67,374
	Hawthorn St to Grape St1	37,881	26,798	11,083	42,061	25,760	17,609	46,259	27,989	19,967	58,898	31,968	28,521	80,260	35,023	46,983	86,355	36,193	51,972
	Grape St to Ash St1	20,437	7,796	12,641	21,715	7,494	14,602	23,191	8,142	15,464	27,307	9,300	18,470	28,733	10,189	19,053	30,893	10,529	20,891
Harbor Island Dr	Harbor Dr to Old Rent A Car Access	12,743	1,132	11,611	13,495	1,189	12,354	17,367	1,286	16,133	32,387	1,462	30,983	32,873	1,603	31,334	34,031	1,656	32,440
	West of Harbor Island Dr	7,661	1,132	6,529	13,508	1,189	12,367	13,736	1,286	12,502	14,180	1,462	12,776	14,667	1,603	13,127	15,826	1,656	14,235
	Harbor Island Dr to Parking Lot	4,801	0	4,801	6,902	0	6,902	7,013	0	7,013	7,153	0	7,153	8,044	0	8,044	13,296	0	13,296
	East of Parking Lot	3,929	0	3,929	6,902	0	6,902	7,013	0	7,013	7,153	0	7,153	8,044	0	8,044	13,296	0	13,296
Source: Kimley-Horn, 2019.																			

Table C-24. Alternative 4 Off-Airport Daily Traffic Volumes

Roadway	Roadway Segment	Existing			2024			2026			2030			2035			2050		
		Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.
Pacific Highway	Kurtz St to Barnett Ave	21,780	2,580	19,200	23,113	2,753	20,360	23,512	2,922	20,590	24,297	3,241	21,056	25,201	3,549	21,653	28,317	3,498	24,819
	Barnett Ave to Washington St	51,778	4,158	47,620	61,697	5,067	56,630	63,252	5,404	57,848	65,090	5,995	59,095	67,266	6,574	60,692	71,300	6,482	64,818
	Washington St to Sassafras St	14,219	4,872	9,347	14,995	4,371	10,625	15,404	4,625	10,780	16,245	5,150	11,094	19,875	5,647	14,228	38,150	5,556	32,594
	Sassafras St to Palm St	18,988	9,991	8,997	21,200	10,704	10,496	22,089	11,387	10,701	23,791	12,674	11,117	25,565	13,915	11,650	28,310	13,716	14,594
	Palm St to Laurel St	20,447	12,428	8,019	22,064	12,692	9,372	23,098	13,502	9,596	25,113	15,051	10,062	28,654	16,540	12,114	35,171	16,290	18,881
	Laurel Dr to Juniper St	10,478	6,924	3,554	13,683	7,527	6,156	14,315	8,016	6,299	15,544	8,931	6,613	17,917	9,815	8,102	21,395	9,676	11,719
Kettner Blvd	Vine St to Sassafras St	26,492	18,117	8,375	31,382	17,267	14,115	33,241	18,347	14,894	37,836	20,465	17,370	42,341	22,491	19,850	36,577	22,118	14,459
	Sassafras St to Palm St	18,406	15,838	2,568	28,723	15,659	13,065	30,512	16,646	13,865	35,059	18,564	16,495	41,030	20,401	20,629	41,609	20,084	21,526
	Palm St to Laurel St	18,406	10,719	7,687	23,402	9,605	13,797	24,811	10,181	14,629	28,639	11,373	17,267	31,072	12,499	18,572	32,397	12,301	20,096
India St	Sassafras St to Laurel St	14,465	11,303	3,162	20,937	15,379	5,559	22,578	16,349	6,229	26,717	18,231	8,485	29,078	20,036	9,042	31,471	19,706	11,765
	Laurel St to Juniper St	3,884	0	3,884	4,022	0	4,022	4,063	0	4,063	4,144	0	4,144	4,249	0	4,249	4,579	0	4,579
Washington St	West of Pacific Hwy	4,847	2,683	2,164	6,027	3,934	2,094	6,433	4,219	2,214	7,136	4,682	2,454	7,864	5,144	2,720	9,497	5,072	4,424
	Hancock St to San Diego Ave	22,972	3,397	19,575	25,224	3,238	21,986	25,897	3,440	22,457	27,194	3,837	23,357	28,250	4,217	24,033	30,515	4,147	26,368
	East of India St	24,710	3,397	21,313	29,624	3,238	26,386	30,396	3,440	26,956	31,911	3,837	28,074	33,086	4,217	28,869	35,726	4,147	31,579
Admiral Boland Wy	Washington St to Terminal Link Rd	13,099	13,099	0	20,050	19,206	844	21,583	20,599	984	24,126	22,859	1,267	26,744	25,115	1,629	28,689	24,765	3,924
	Terminal Link Rd to Pacific Hwy	13,099	13,099	0	20,348	19,338	1,009	21,882	20,731	1,151	24,428	22,991	1,437	27,051	25,247	1,804	29,014	24,901	4,112
Sassafras St	Pacific Hwy to Kettner Blvd	15,983	12,852	3,131	21,364	17,672	3,692	22,781	18,924	3,858	25,212	21,019	4,194	31,342	23,094	8,248	33,717	22,780	10,937

Roadway	Roadway Segment	Existing			2024			2026			2030			2035			2050		
		Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.
Palm St	Pacific Hwy to Kettner Blvd	1,940	1,700	240	7,669	2,119	5,550	7,900	2,246	5,653	8,325	2,509	5,816	12,222	2,758	9,465	12,758	12,622	135
Laurel St	Harbor Dr to Pacific Hwy	35,441	32,004	3,437	47,233	36,822	10,411	50,873	39,030	11,844	60,139	43,596	16,543	65,810	47,915	17,895	71,599	47,123	24,477
	Pacific Hwy to India St	21,042	16,552	4,490	23,994	14,962	9,032	25,611	15,867	9,744	29,805	17,719	12,086	32,226	19,474	12,751	34,944	19,158	15,786
	India St to State St/ Reynard Wy	14,072	3,397	10,675	14,166	3,238	10,928	14,512	3,440	11,072	15,200	3,837	11,362	15,952	4,217	11,735	17,262	4,147	13,115
Hawthorn St	Harbor Dr to Pacific Hwy	26,337	16,566	9,771	26,428	14,412	12,016	27,577	15,275	12,302	29,945	17,062	12,882	35,146	18,753	16,394	38,302	18,428	19,875
	Pacific Hwy to India St	30,936	16,566	14,370	31,666	14,412	17,254	33,609	15,275	18,334	38,739	17,062	21,676	52,954	18,753	34,202	57,246	18,428	38,818
	India St to State St	30,936	16,566	14,370	32,203	14,412	17,791	34,222	15,275	18,948	39,326	17,062	22,264	53,472	18,753	34,719	57,803	18,428	39,376
	State St to Albatross St	10,483	0	10,483	10,856	0	10,856	10,965	0	10,965	11,185	0	11,185	11,468	0	11,468	12,358	0	12,358
Grape St	Harbor Dr to Pacific Hwy	23,826	19,002	4,824	26,675	16,532	10,143	28,594	17,521	11,073	33,787	19,571	14,216	49,879	21,510	28,369	53,994	21,138	32,857
	Pacific Hwy to India St1	28,167	19,002	9,165	36,951	16,532	20,419	38,973	17,521	21,452	44,375	19,571	24,804	59,162	21,510	37,652	63,999	21,138	42,861
	India St to State St	32,386	19,002	13,384	46,310	16,532	29,779	50,065	17,521	32,544	56,549	19,571	36,978	73,801	21,510	52,291	79,775	21,138	58,637
	Albatross St to Front St1	2,172	0	2,172	3,138	0	3,138	3,415	0	3,415	4,413	0	4,413	5,555	0	5,555	5,986	0	5,986
North Harbor Dr	Scott Rd to Nimitz Blvd2	11,759	2,923	8,836	16,255	2,543	13,712	16,574	2,696	13,879	17,227	3,011	14,216	17,958	3,309	14,649	19,428	3,252	16,177
	Nimitz Blvd to Laning Rd2	19,644	8,770	10,874	25,141	7,630	17,511	25,861	8,087	17,774	27,341	9,033	18,308	28,919	9,928	18,992	31,391	9,756	21,636
	Laning Rd to McCain Rd	28,798	11,694	17,104	29,181	10,173	19,008	30,571	10,782	19,789	34,340	12,044	22,296	36,368	13,237	23,131	39,423	13,008	26,415
	McCain Rd to Spanish Landing	29,392	7,980	21,412	29,267	10,173	19,094	30,719	10,782	19,937	34,489	12,044	22,445	36,427	13,237	23,190	39,198	13,008	26,190
	Spanish Landing to	30,278	5,732	24,546	29,360	9,047	20,313	30,695	9,938	20,756	33,061	11,047	22,014	34,822	12,130	22,692	37,344	11,909	25,435

Roadway	Roadway Segment	Existing			2024			2026			2030			2035			2050		
		Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.	Total	Airp.	Non Airp.
	Harbor Island Dr																		
	Harbor Island Dr to Winship Ln2	77,384	21,445	55,939	20,031	1,422	18,609	23,882	1,257	22,625	38,824	1,401	37,422	40,020	1,548	38,472	48,113	1,510	46,603
	Winship Ln to Liberator Way	89,066	75,645	13,421	64,653	37,705	26,948	71,276	39,838	31,438	91,866	44,498	47,368	98,947	48,910	50,038	108,919	48,057	60,862
	Liberator Way to Cell Phone Lot	94,942	75,645	19,297	66,729	38,117	28,612	73,386	40,267	33,119	94,045	44,962	49,083	101,203	49,407	51,795	111,328	48,571	62,756
	Cell Phone Lot to Laurel St/ Solar Turbines	95,096	87,131	7,965	67,437	38,117	29,321	74,217	40,267	33,950	95,123	44,962	50,161	102,598	49,407	53,191	113,724	48,571	65,153
	Laurel St/ Solar Turbines to W Laurel St	76,603	70,000	6,603	62,993	38,249	24,744	69,663	40,399	29,263	90,346	45,094	45,252	97,537	49,539	47,997	107,769	48,708	59,061
	Laurel St to Hawthorn St	59,521	43,364	16,157	63,227	37,990	25,237	68,086	40,248	27,838	81,810	44,927	36,883	109,433	49,352	60,082	118,294	48,510	69,784
	Hawthorn St to Grape St1	37,881	26,798	11,083	41,186	23,578	17,609	44,940	24,973	19,967	56,386	27,865	28,521	77,582	30,599	46,983	83,543	30,082	53,461
	Grape St to Ash St1	20,437	7,796	12,641	21,648	7,046	14,602	22,916	7,452	15,464	26,763	8,293	18,470	28,142	9,089	19,053	30,269	8,945	21,324
Harbor Island Dr	Harbor Dr to Old Rent A Car Access	12,743	1,132	11,611	13,433	1,079	12,354	17,280	1,147	16,133	32,262	1,279	30,983	32,739	1,406	31,334	33,891	1,382	32,508
	West of Harbor Island Dr	7,661	1,132	6,529	13,446	1,079	12,367	13,649	1,147	12,502	14,055	1,279	12,776	14,533	1,406	13,127	15,685	1,382	14,303
	Harbor Island Dr to Parking Lot	4,801	0	4,801	6,902	0	6,902	7,013	0	7,013	7,153	0	7,153	8,044	0	8,044	13,296	0	13,296
	East of Parking Lot	3,929	0	3,929	6,902	0	6,902	7,013	0	7,013	7,153	0	7,153	8,044	0	8,044	13,296	0	13,296
Source: Kimley-Horn, 2019.																			

1.4 Other Sources

Criteria pollutants are emitted as a result of activities in buildings for which electricity and natural gas are used as energy sources. Emissions of the criteria air pollutants and their precursors due to the use of natural gas was estimated for existing conditions and all future years. The estimates were prepared using the California Air Pollution Control Officers Association's (CAPCOA's) California Emissions Estimator Model (CalEEMod-Version 2016.3.2) and were based on project-specific land uses and sizes.

CalEEMod's emission factors for natural gas combustion are based on EPA's AP-42 Compilation and the California Climate Action Registry (CCAR). For the existing condition and Alternative 1 (No Project), the total square footage of all of the buildings at the airport were used for input to CalEEMod. These are:

- Administrative Building/ Former Commuter Terminal – 132,000 square feet (sf)
- Terminal 1 – 336,000 sf
- Terminal 2 (East) – 350,000 sf
- Terminal 2 (West) – 889,000 sf

The proposed project was also modeled using CalEEMod and were based on the information and square footages provided in Section 1.5.3 of this Appendix.

1.5 Construction Activities

For this assessment, construction-related emissions are primarily associated with the exhaust from heavy equipment (e.g., backhoes, loaders, graders, etc.), delivery trucks (e.g., cement trucks, dump trucks, etc.), and construction worker vehicles getting to and from the Airport construction site(s); dust from site preparation, land clearing, material handling, equipment movement on unpaved areas, and demolition activities; and fugitive emissions from the storage/transfer of raw materials. These emissions are temporary in nature and generally confined to the construction site and the access/egress roadways.

Emissions of CO, NO_x, VOC, SO_x, PM_{10/2.5}, as well as GHG (i.e., CO₂, CH₄, and N₂O) were evaluated for the proposed project's 15-year construction period of approximately late 2020/early 2021 to 2035. Emission factors for on-road motor vehicles and off-road construction equipment were developed using CARB's EMFAC2017 and OFFROAD2017, respectively. Fugitive emissions were calculated using emission factors within U.S. EPA's Compilation of Air Pollutant Emission Factors (AP-42).⁷

Data regarding the types of construction activities and equipment/vehicle activity data (e.g., equipment mixes/operating times) were estimated from the Airport Construction Emissions Inventory Tool (ACEIT) based on the proposed project's development phasing (i.e., Phases 1a, 1b, 2a, and 2b).

⁷ U.S. EPA, Emissions Factors and AP-42, *Compilation of Air Pollutant Emission Factors*, <http://www.epa.gov/ttn/chiefl/ap42/index.html#toc>.

1.5.1 On-road Vehicles

For on-road vehicles, the estimated vehicles miles traveled (VMT) were estimated to determine annual emissions. In deriving the VMT, the following was assumed.

- VMT by hauling, delivering, and pickup trucks were based on the number of trips and a roundtrip travel distance of 40 miles.
- In deriving the VMT for each worker traveling to and from the construction site, it was assumed that a composite of passenger cars and trucks would commute a roundtrip distance of 30 miles.

The following equation was used to obtain annual emissions for on-road vehicles:

$$\text{On-road Vehicle Emissions (tons/year) for on-road vehicles} = \text{Emission Factor (g/mile)} \times \text{vehicle miles travelled per day} \times \text{days/year} \times (1 \text{ pound}/453.59 \text{ grams}) \times (1 \text{ ton}/2,000 \text{ pounds})$$

EMFAC2017 emission factors associated with commuter vehicles, hauling, delivery, and pickup trucks for the construction period are presented in **Table C-25**.

Table C-25 On-road Vehicle Emission Factors (grams/mile)

Vehicles	EMFAC Vehicle Classification	Pollutant	2021	2022	2023	2024	2025	2026	2027
Employee Commuters	LDA (Gasoline)	CO	0.63	0.59	0.55	0.52	0.49	0.47	0.45
		NO _x	0.040	0.035	0.031	0.028	0.026	0.024	0.023
		VOC	0.010	0.009	0.008	0.007	0.006	0.005	0.005
		SO _x	0.003	0.003	0.003	0.003	0.002	0.002	0.002
		PM ₁₀	0.002	0.002	0.001	0.001	0.001	0.001	0.001
		PM _{2.5}	0.002	0.001	0.001	0.001	0.001	0.001	0.001
		CO ₂	275	268	260	253	246	239	233
		CH ₄	0.003	0.002	0.002	0.002	0.002	0.002	0.001
		N ₂ O	0.005	0.004	0.004	0.004	0.004	0.003	0.003
Haul Trucks	T7 Single (Diesel)	CO	1.04	0.48	0.21	0.21	0.21	0.22	0.22
		NO _x	5.76	3.45	2.05	2.08	2.11	2.14	2.15
		VOC	0.33	0.13	0.02	0.02	0.02	0.02	0.02
		SO _x	0.015	0.014	0.014	0.014	0.013	0.013	0.013
		PM ₁₀	0.14	0.045	0.012	0.012	0.012	0.012	0.013
		PM _{2.5}	0.13	0.043	0.011	0.011	0.012	0.012	0.012
		CO ₂	1,617	1,523	1,446	1,430	1,415	1,400	1,382
		CH ₄	0.015	0.006	0.001	0.001	0.001	0.001	0.001
		N ₂ O	0.254	0.239	0.227	0.225	0.222	0.220	0.217
Material Delivery	T7 Tractor (Diesel)	CO	0.48	0.26	0.16	0.16	0.16	0.16	0.16
		NO _x	3.86	2.99	2.02	2.02	2.02	2.01	1.99
		VOC	0.12	0.06	0.02	0.02	0.02	0.02	0.02
		SO _x	0.013	0.013	0.012	0.012	0.012	0.011	0.011
		PM ₁₀	0.079	0.040	0.028	0.028	0.029	0.029	0.029
		PM _{2.5}	0.075	0.038	0.027	0.027	0.028	0.028	0.028
		CO ₂	1,379	1,333	1,265	1,246	1,226	1,205	1,181
		CH ₄	0.006	0.003	0.001	0.001	0.001	0.001	0.001
		N ₂ O	0.217	0.210	0.199	0.196	0.193	0.189	0.186

Source : CARB's EMFAC2017.

Table C-25 (Continued) On-road Vehicle Emission Factors (grams/mile)

Vehicles	EMFAC Vehicle Classification	Pollutant	2028	2029	2030	2031	2032	2033	2034	2035
Employee Commuters	Composite of LDA/LDT1	CO	0.44	0.43	0.42	0.41	0.40	0.39	0.39	0.38
		NO _x	0.021	0.020	0.020	0.019	0.019	0.018	0.018	0.018
		VOC	0.004	0.004	0.004	0.003	0.003	0.003	0.003	0.003
		SO _x	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
		PM ₁₀	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
		PM _{2.5}	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
		CO ₂	228	223	219	215	212	209	207	205
		CH ₄	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
		N ₂ O	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Haul Trucks	T7 Single	CO	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
		NO _x	2.17	2.18	2.20	2.21	2.22	2.23	2.23	2.22
		VOC	0.02	0.02	0.018	0.018	0.018	0.018	0.018	0.018
		SO _x	0.013	0.013	0.013	0.012	0.012	0.012	0.012	0.012
		PM ₁₀	0.013	0.013	0.013	0.013	0.013	0.014	0.014	0.014
		PM _{2.5}	0.012	0.012	0.013	0.013	0.013	0.013	0.013	0.013
		CO ₂	1,365	1,350	1,336	1,323	1,309	1,295	1,279	1,262
		CH ₄	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
		N ₂ O	0.215	0.212	0.210	0.208	0.206	0.203	0.201	0.198
Material Delivery	T7 Tractor	CO	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
		NO _x	1.97	1.94	1.92	1.89	1.87	1.85	1.83	1.81
		VOC	0.02	0.02	0.019	0.019	0.019	0.018	0.018	0.018
		SO _x	0.011	0.011	0.010	0.010	0.010	0.010	0.010	0.010
		PM ₁₀	0.029	0.029	0.028	0.028	0.028	0.028	0.028	0.027
		PM _{2.5}	0.028	0.027	0.027	0.027	0.027	0.027	0.026	0.026
		CO ₂	1,157	1,133	1,110	1,088	1,066	1,046	1,027	1,009
		CH ₄	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
		N ₂ O	0.182	0.178	0.175	0.171	0.168	0.164	0.161	0.159

Source : CARB's EMFAC2017.

Passenger Cars = LDA

Light-Duty Trucks = LDT

Heavy Heavy Truck = T7

1.5.2 Off-road Construction Equipment

CARB's OFFROAD2017 model is used to estimate emissions for off-road equipment. **Table C-26** presents the off-road equipment used for the analysis along with the corresponding OFFROAD2017 category description and the horsepower (hp) assigned to each type of construction equipment. A load factor was applied to account for the average operational load level applied to each piece of equipment.

Table C-26 Construction Equipment Data

Equipment	OFFROAD Equipment	Horsepower	Load Factor
40 Ton Crane	Cranes	300	0.43
90 Ton Crane			
Air Compressor	Non-Rental Compressors	100	0.43
Asphalt Paver	Pavers	175	0.59
Backhoe	Tractors/Loaders/Backhoes	100	0.21
Caisson Drilling Rig	Bore/Drill Rigs	175	0.43
Chain Saw	Concrete/Industrial Saws	25	0.7
Chipper/Stump Grinder	Agricultural Construction Equipment	100	0.43
Concrete Pump	Light Commercial Pumps	25	0.43
Concrete Ready Mix Trucks	Off-Highway Trucks	600	0.59
Concrete Saws	Concrete/Industrial Saws	50	0.59
Concrete Truck	Off-Highway Trucks	600	0.59
Curb/Gutter Paver	Pavers	175	0.59
Distributing Tanker	Off-Highway Trucks	600	0.59
Dozer	Rubber Tired Dozers	175	0.59
Dump Truck	Off-Highway Trucks	600	0.59
Excavator	Excavators	175	0.59
Flatbed Truck	Off-Highway Trucks	600	0.59
Fork Lift	Rough Terrain Forklifts	100	0.59
Fork Truck	Rough Terrain Forklifts	100	0.59
Generator	Non-Rental Generator	50	0.43
Grader	Graders	300	0.59
High Lift	Aerial Lifts	100	0.59
Hydroseeder	Agricultural - Others	600	0.59
Loader	Tractors/Loaders/Backhoes	100	0.59
		175	
Man Lift	Aerial Lifts	75	0.21
Material Deliveries	Off-Highway Trucks	600	0.59
Off-Road Truck	Off-Highway Trucks	600	0.59
Other General	Other Construction Equipment	175	0.43

Equipment	OFFROAD Equipment	Horsepower	Load Factor
Equipment			
Pickup Truck	Off-Highway Trucks	600	0.59
Pumps	Light Commercial Pumps	25	0.43
Roller	Rollers	100	0.59
Rubber Tired Loader	Rubber Tire Loaders	175	0.59
Scraper	Scrapers	600	0.59
Skid Steer Loader	Skid Steer Loaders	75	0.21
Slip Form Paver	Paving Equipment	175	0.59
Surfacing Equipment (Grooving)	Paving Equipment	50	0.59
Survey Crew Trucks	Off-Highway Trucks	600	0.59
Tool Truck	Off-Highway Trucks	600	0.59
Tractor Trailer- Material Delivery	Off-Highway Trucks	600	0.59
Tractor Trailer- Steel Deliveries	Off-Highway Trucks	600	0.59
Tractor Trailers Temp Fac.	Off-Highway Trucks	600	0.59
Tractors/Loader/Backhoe	Tractors/Loaders/Backhoes	75	0.21
		100	
Trencher	Trenchers	75	0.59
Trowel Machine	Other Construction Equipment	600	0.59
Vibratory Compactor	Plate Compactors	25	0.43
Water Truck	Off-Highway Trucks	600	0.59

Source: OFFROAD2017; ACEIT.

The following equation was used to obtain emission estimates for off-road construction equipment:

$$\text{Construction Equipment Emissions (tons/year)} = \text{Emission Factor (grams/hp-hour)} \times \text{Horsepower (hp)} \times \text{hours per year} \times \text{Load Factor} \times (1 \text{ pound}/453.59 \text{ grams}) \times (1 \text{ ton}/2,000 \text{ pounds})$$

Tables C-27 through C-41 present the construction emissions factors (grams/horsepower-hour) for 2021 through 2035, respectively, for both criteria pollutants/precursor pollutants and GHGs.

Table C-27 2021 Construction Equipment Emission Factors (grams/hp-hr)

Equipment	Horsepower	VOC	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}	CO ₂	CH ₄	N ₂ O
Agricultural - Construction Equipment	100	0.26	1.29	1.76	0.0003	0.143	0.131	28.1	0.0112	0.0051
Agricultural - Others	600	0.10	0.52	1.01	0.0002	0.042	0.039	18.7	0.0074	0.0034
Bore/Drill Rigs	175	0.07	1.26	0.69	0.0021	0.030	0.028	226.9	0.0127	0.0058
Cranes	300	0.08	0.38	0.90	0.0010	0.036	0.033	111.9	0.0062	0.0029
Excavators	175	0.07	0.99	0.65	0.0016	0.032	0.029	168.3	0.0094	0.0043
Graders	300	0.10	0.40	1.19	0.0014	0.039	0.036	155.8	0.0087	0.0040
Off-Highway Trucks	600	0.05	0.32	0.47	0.0012	0.017	0.016	126.5	0.0071	0.0032
Other Construction Equipment	175	0.12	1.15	1.25	0.0018	0.065	0.060	190.1	0.0106	0.0048
	600	0.05	0.40	0.61	0.0013	0.022	0.020	139.1	0.0078	0.0035
Pavers	175	0.10	1.13	1.02	0.0018	0.050	0.046	198.0	0.0111	0.0050
Paving Equipment	50	0.15	1.04	0.96	0.0013	0.050	0.046	143.9	0.0080	0.0037
	175	0.07	0.91	0.72	0.0014	0.036	0.033	156.0	0.0087	0.0040
Rollers	100	0.11	1.14	1.15	0.0016	0.070	0.064	172.8	0.0097	0.0044
Rough Terrain Forklifts	100	0.05	1.25	0.81	0.0019	0.025	0.023	204.4	0.0114	0.0052
Rubber Tired Dozers	175	0.23	1.28	2.22	0.0016	0.127	0.117	175.1	0.0098	0.0045
Rubber Tired Loaders	175	0.11	1.04	0.97	0.0015	0.053	0.049	163.4	0.0091	0.0042
Scrapers	600	0.09	0.68	1.08	0.0017	0.041	0.038	179.4	0.0100	0.0046
Skid Steer Loaders	75	0.06	1.13	0.81	0.0017	0.033	0.030	182.8	0.0102	0.0047
Tractors/Loaders/Backhoes	75	0.57	1.90	4.47	0.0017	0.358	0.330	185.9	0.0104	0.0047
	100	0.09	1.08	0.89	0.0015	0.052	0.047	162.2	0.0091	0.0041
	175	0.07	0.94	0.62	0.0015	0.032	0.029	158.5	0.0089	0.0040
Trenchers	75	0.40	2.07	3.38	0.0023	0.228	0.210	250.7	0.0140	0.0064
Aerial Lifts	75	0.03	0.94	0.48	0.0014	0.011	0.010	156.7	0.0088	0.0040
	100	0.03	0.77	0.48	0.0012	0.006	0.006	127.0	0.0071	0.0032
Concrete/Industrial Saws	25	0.29	1.21	2.23	0.0037	0.083	0.077	293.1	0.0168	0.0076
	50	0.29	2.17	1.96	0.0036	0.089	0.082	274.7	0.0158	0.0072
Plate Compactors	25	0.08	0.48	0.57	0.0012	0.022	0.020	78.2	0.0045	0.0020
Light Commercial - Pumps	25	0.20	0.99	1.46	0.0026	0.068	0.063	184.9	0.0106	0.0048
Non-Rental Compressor	100	0.06	0.91	0.70	0.0012	0.046	0.043	134.3	0.0075	0.0034
Non-Rental Generator	50	0.13	1.52	1.35	0.0014	0.064	0.059	148.0	0.0083	0.0038

Source: OFFROAD 2017.

Table C-28 2022 Construction Equipment Emission Factors (grams/hp-hr)

Equipment	HP	VOC	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}	CO ₂	CH ₄	N ₂ O
Agricultural - Construction Equipment	100	0.25	1.28	1.65	0.0003	0.135	0.124	28.1	0.0112	0.0051
Agricultural - Others	600	0.10	0.50	0.95	0.0002	0.040	0.037	18.7	0.0074	0.0034
Bore/Drill Rigs	175	0.06	1.26	0.56	0.0021	0.025	0.023	227.1	0.0127	0.0058
Cranes	300	0.07	0.38	0.79	0.0010	0.033	0.030	111.7	0.0062	0.0028
Excavators	175	0.06	0.98	0.54	0.0016	0.026	0.024	168.3	0.0094	0.0043
Graders	300	0.09	0.38	1.06	0.0014	0.035	0.032	155.7	0.0087	0.0040
Off-Highway Trucks	600	0.05	0.30	0.36	0.0012	0.013	0.012	126.4	0.0071	0.0032
Other Construction Equipment	175	0.11	1.14	1.09	0.0018	0.057	0.052	190.0	0.0106	0.0048
	600	0.05	0.36	0.50	0.0013	0.018	0.017	139.2	0.0078	0.0035
Pavers	175	0.08	1.13	0.83	0.0018	0.040	0.037	198.2	0.0111	0.0050
Paving Equipment	50	0.14	1.05	0.95	0.0013	0.047	0.043	144.0	0.0080	0.0037
	175	0.07	0.91	0.67	0.0014	0.036	0.033	155.2	0.0087	0.0040
Rollers	100	0.10	1.13	1.02	0.0016	0.059	0.054	172.9	0.0097	0.0044
Rough Terrain Forklifts	100	0.05	1.24	0.75	0.0019	0.020	0.018	204.5	0.0114	0.0052
Rubber Tired Dozers	175	0.21	1.23	1.89	0.0016	0.120	0.111	170.0	0.0095	0.0043
Rubber Tired Loaders	175	0.09	1.02	0.78	0.0015	0.042	0.039	163.3	0.0091	0.0042
Scrapers	600	0.08	0.62	0.90	0.0017	0.034	0.032	179.5	0.0100	0.0046
Skid Steer Loaders	75	0.06	1.13	0.75	0.0017	0.028	0.025	183.0	0.0102	0.0047
Tractors/Loaders/Backhoes	75	0.56	1.87	4.40	0.0017	0.356	0.328	186.0	0.0104	0.0047
	100	0.08	1.07	0.78	0.0015	0.041	0.038	162.4	0.0091	0.0041
	175	0.06	0.93	0.53	0.0015	0.027	0.025	158.6	0.0089	0.0040
Trenchers	75	0.41	2.08	3.45	0.0023	0.236	0.218	249.8	0.0139	0.0064
Aerial Lifts	75	0.03	0.95	0.49	0.0014	0.009	0.008	156.9	0.0088	0.0040
	100	0.02	0.76	0.38	0.0012	0.007	0.007	127.8	0.0071	0.0033
Concrete/Industrial Saws	25	0.30	1.22	2.27	0.0038	0.085	0.078	297.2	0.0170	0.0078
	50	0.26	2.13	1.89	0.0035	0.076	0.070	273.4	0.0157	0.0072
Plate Compactors	25	0.08	0.48	0.57	0.0012	0.022	0.020	78.2	0.0045	0.0020
Light Commercial - Pumps	25	0.19	0.99	1.44	0.0026	0.065	0.060	184.9	0.0106	0.0048
Non-Rental Compressor	100	0.04	0.91	0.56	0.0012	0.037	0.034	134.3	0.0075	0.0034
Non-Rental Generator	50	0.13	1.52	1.35	0.0014	0.064	0.059	148.0	0.0083	0.0038

Source: OFFROAD 2017.

Table C-29 2023 Construction Equipment Emission Factors (grams/hp-hr)

Equipment	HP	VOC	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}	CO ₂	CH ₄	N ₂ O
Agricultural - Construction Equipment	100	0.23	1.27	1.54	0.0003	0.127	0.117	28.1	0.0112	0.0051
Agricultural - Others	600	0.10	0.48	0.89	0.0002	0.037	0.034	18.7	0.0074	0.0034
Bore/Drill Rigs	175	0.05	1.26	0.47	0.0021	0.021	0.019	228.2	0.0127	0.0058
Cranes	300	0.07	0.38	0.73	0.0010	0.031	0.028	111.5	0.0062	0.0028
Excavators	175	0.06	0.98	0.47	0.0016	0.023	0.021	168.3	0.0094	0.0043
Graders	300	0.08	0.38	0.95	0.0014	0.032	0.029	154.7	0.0086	0.0039
Off-Highway Trucks	600	0.04	0.29	0.32	0.0012	0.011	0.011	126.4	0.0071	0.0032
Other Construction Equipment	175	0.10	1.14	0.98	0.0018	0.051	0.047	190.0	0.0106	0.0048
	600	0.05	0.35	0.46	0.0013	0.017	0.016	139.8	0.0078	0.0036
Pavers	175	0.08	1.12	0.74	0.0018	0.035	0.033	198.2	0.0111	0.0050
Paving Equipment	50	0.13	1.05	0.93	0.0013	0.043	0.039	144.2	0.0081	0.0037
	175	0.07	0.92	0.62	0.0014	0.032	0.030	155.5	0.0087	0.0040
Rollers	100	0.09	1.12	0.95	0.0016	0.052	0.048	172.9	0.0097	0.0044
Rough Terrain Forklifts	100	0.05	1.25	0.71	0.0019	0.017	0.016	204.6	0.0114	0.0052
Rubber Tired Dozers	175	0.20	1.23	1.84	0.0016	0.117	0.107	168.9	0.0094	0.0043
Rubber Tired Loaders	175	0.08	1.02	0.69	0.0015	0.037	0.034	163.2	0.0091	0.0042
Scrapers	600	0.08	0.60	0.84	0.0017	0.032	0.030	179.5	0.0100	0.0046
Skid Steer Loaders	75	0.05	1.13	0.71	0.0017	0.024	0.022	183.3	0.0102	0.0047
Tractors/Loaders/Backhoes	75	0.56	1.87	4.38	0.0017	0.356	0.328	186.6	0.0104	0.0048
	100	0.07	1.07	0.71	0.0015	0.034	0.031	162.5	0.0091	0.0041
	175	0.06	0.93	0.46	0.0015	0.023	0.021	158.9	0.0089	0.0040
Trenchers	75	0.42	2.08	3.48	0.0023	0.241	0.222	248.0	0.0139	0.0063
Aerial Lifts	75	0.03	0.91	0.49	0.0014	0.011	0.010	151.6	0.0085	0.0039
	100	0.02	0.76	0.34	0.0012	0.004	0.004	126.1	0.0070	0.0032
Concrete/Industrial Saws	25	0.30	1.23	2.27	0.0038	0.085	0.078	297.7	0.0168	0.0077
	50	0.24	2.11	1.84	0.0035	0.065	0.060	274.0	0.0158	0.0072
Plate Compactors	25	0.08	0.48	0.57	0.0012	0.022	0.020	78.2	0.0045	0.0020
Light Commercial - Pumps	25	0.19	0.98	1.43	0.0026	0.062	0.057	184.9	0.0106	0.0048
Non-Rental Compressor	100	0.04	0.91	0.53	0.0012	0.035	0.032	134.3	0.0075	0.0034
Non-Rental Generator	50	0.13	1.52	1.35	0.0014	0.064	0.059	148.0	0.0083	0.0038

Source: OFFROAD 2017.

Table C-30 2024 Construction Equipment Emission Factors (grams/hp-hr)

Equipment	HP	VOC	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}	CO ₂	CH ₄	N ₂ O
Agricultural - Construction Equipment	100	0.22	1.27	1.44	0.0003	0.120	0.110	28.1	0.0112	0.0051
Agricultural - Others	600	0.09	0.46	0.84	0.0002	0.035	0.032	18.7	0.0074	0.0034
Bore/Drill Rigs	175	0.05	1.27	0.45	0.0021	0.020	0.019	227.9	0.0127	0.0058
Cranes	300	0.06	0.36	0.66	0.0010	0.028	0.025	111.3	0.0062	0.0028
Excavators	175	0.05	0.98	0.43	0.0016	0.021	0.019	168.4	0.0094	0.0043
Graders	300	0.08	0.37	0.85	0.0014	0.028	0.026	154.3	0.0086	0.0039
Off-Highway Trucks	600	0.04	0.29	0.30	0.0012	0.011	0.010	126.5	0.0071	0.0032
Other Construction Equipment	175	0.10	1.14	0.92	0.0018	0.048	0.044	189.9	0.0106	0.0048
	600	0.04	0.35	0.41	0.0013	0.015	0.014	139.7	0.0078	0.0036
Pavers	175	0.07	1.13	0.69	0.0018	0.033	0.030	198.1	0.0111	0.0050
Paving Equipment	50	0.13	1.06	0.93	0.0013	0.041	0.037	144.1	0.0081	0.0037
	175	0.07	0.92	0.59	0.0014	0.031	0.029	155.8	0.0087	0.0040
Rollers	100	0.09	1.12	0.90	0.0016	0.047	0.043	172.9	0.0097	0.0044
Rough Terrain Forklifts	100	0.05	1.25	0.69	0.0019	0.017	0.015	204.6	0.0114	0.0052
Rubber Tired Dozers	175	0.19	1.21	1.66	0.0016	0.107	0.099	169.9	0.0095	0.0043
Rubber Tired Loaders	175	0.08	1.02	0.59	0.0015	0.032	0.029	163.1	0.0091	0.0042
Scrapers	600	0.08	0.58	0.78	0.0017	0.030	0.028	179.6	0.0100	0.0046
Skid Steer Loaders	75	0.05	1.13	0.67	0.0017	0.021	0.019	183.3	0.0102	0.0047
Tractors/Loaders/Backhoes	75	0.57	1.90	4.48	0.0017	0.359	0.330	185.0	0.0103	0.0047
	100	0.07	1.07	0.67	0.0015	0.030	0.027	162.6	0.0091	0.0041
	175	0.05	0.94	0.42	0.0015	0.021	0.019	159.1	0.0089	0.0041
Trenchers	75	0.39	2.04	3.40	0.0023	0.254	0.234	254.9	0.0142	0.0065
Aerial Lifts	75	0.03	0.91	0.47	0.0014	0.010	0.010	151.6	0.0085	0.0039
	100	0.02	0.76	0.34	0.0012	0.004	0.004	126.4	0.0071	0.0032
Concrete/Industrial Saws	25	0.30	1.24	2.30	0.0038	0.086	0.079	301.7	0.0168	0.0077
	50	0.22	2.09	1.78	0.0035	0.056	0.051	273.9	0.0157	0.0072
Plate Compactors	25	0.08	0.48	0.57	0.0012	0.022	0.020	78.2	0.0045	0.0020
Light Commercial - Pumps	25	0.19	0.98	1.42	0.0026	0.060	0.055	184.9	0.0106	0.0048
Non-Rental Compressor	100	0.04	0.91	0.55	0.0012	0.036	0.033	134.3	0.0075	0.0034
Non-Rental Generator	50	0.13	1.52	1.35	0.0014	0.064	0.059	148.0	0.0083	0.0038

Source: OFFROAD 2017.

Table C-31 2025 Construction Equipment Emission Factors (grams/hp-hr)

Equipment	HP	VOC	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}	CO ₂	CH ₄	N ₂ O
Agricultural - Construction Equipment	100	0.21	1.26	1.34	0.0003	0.113	0.104	28.1	0.0112	0.0051
Agricultural - Others	600	0.09	0.45	0.78	0.0002	0.033	0.031	18.7	0.0074	0.0034
Bore/Drill Rigs	175	0.05	1.27	0.39	0.0021	0.017	0.016	227.5	0.0127	0.0058
Cranes	300	0.06	0.32	0.58	0.0010	0.025	0.023	110.9	0.0062	0.0028
Excavators	175	0.05	0.98	0.37	0.0016	0.018	0.017	168.4	0.0094	0.0043
Graders	300	0.07	0.36	0.72	0.0014	0.024	0.022	154.7	0.0086	0.0039
Off-Highway Trucks	600	0.04	0.28	0.26	0.0012	0.009	0.008	126.4	0.0071	0.0032
Other Construction Equipment	175	0.09	1.14	0.79	0.0018	0.041	0.038	190.1	0.0106	0.0048
	600	0.04	0.34	0.38	0.0013	0.014	0.013	141.4	0.0079	0.0036
Pavers	175	0.07	1.13	0.63	0.0018	0.030	0.028	198.1	0.0111	0.0050
Paving Equipment	50	0.12	1.04	0.90	0.0013	0.035	0.032	144.1	0.0080	0.0037
	175	0.06	0.92	0.50	0.0014	0.026	0.024	156.3	0.0087	0.0040
Rollers	100	0.08	1.12	0.85	0.0016	0.042	0.039	172.8	0.0097	0.0044
Rough Terrain Forklifts	100	0.05	1.25	0.66	0.0019	0.014	0.013	204.6	0.0114	0.0052
Rubber Tired Dozers	175	0.17	1.19	1.44	0.0016	0.093	0.086	170.1	0.0095	0.0043
Rubber Tired Loaders	175	0.07	1.02	0.50	0.0015	0.026	0.024	163.1	0.0091	0.0042
Scrapers	600	0.07	0.53	0.65	0.0017	0.025	0.023	179.0	0.0100	0.0046
Skid Steer Loaders	75	0.05	1.13	0.65	0.0017	0.020	0.018	183.2	0.0102	0.0047
Tractors/Loaders/Backhoes	75	0.56	1.87	4.41	0.0017	0.356	0.328	184.4	0.0103	0.0047
	100	0.06	1.07	0.62	0.0015	0.024	0.022	162.8	0.0091	0.0041
	175	0.05	0.93	0.36	0.0015	0.018	0.016	159.1	0.0089	0.0041
Trenchers	75	0.46	2.10	3.63	0.0023	0.277	0.255	246.9	0.0138	0.0063
Aerial Lifts	75	0.03	0.92	0.45	0.0014	0.008	0.008	155.2	0.0087	0.0040
	100	0.02	0.78	0.36	0.0012	0.005	0.005	128.4	0.0072	0.0033
Concrete/Industrial Saws	25	0.30	1.24	2.30	0.0038	0.086	0.079	302.1	0.0172	0.0078
	50	0.21	2.08	1.74	0.0036	0.048	0.044	274.9	0.0158	0.0072
Plate Compactors	25	0.08	0.48	0.57	0.0012	0.022	0.020	78.2	0.0045	0.0020
Light Commercial - Pumps	25	0.19	0.98	1.41	0.0026	0.059	0.054	184.9	0.0106	0.0048
Non-Rental Compressor	100	0.04	0.90	0.48	0.0012	0.034	0.031	134.3	0.0075	0.0034
Non-Rental Generator	50	0.13	1.52	1.02	0.0014	0.039	0.036	148.0	0.0083	0.0038

Source: OFFROAD 2017.

Table C-32 2026 Construction Equipment Emission Factors (grams/hp-hr)

Equipment	HP	VOC	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}	CO ₂	CH ₄	N ₂ O
Agricultural - Construction Equipment	100	0.20	1.25	1.25	0.0003	0.106	0.097	28.1	0.0112	0.0051
Agricultural - Others	600	0.09	0.43	0.73	0.0002	0.031	0.029	18.7	0.0074	0.0034
Bore/Drill Rigs	175	0.05	1.27	0.38	0.0021	0.017	0.016	227.7	0.0127	0.0058
Cranes	300	0.05	0.31	0.53	0.0010	0.022	0.020	111.0	0.0062	0.0028
Excavators	175	0.05	0.98	0.32	0.0016	0.016	0.014	168.4	0.0094	0.0043
Graders	300	0.06	0.35	0.62	0.0014	0.021	0.019	154.7	0.0086	0.0039
Off-Highway Trucks	600	0.04	0.28	0.24	0.0012	0.009	0.008	126.5	0.0071	0.0032
Other Construction Equipment	175	0.08	1.13	0.71	0.0018	0.036	0.034	190.2	0.0106	0.0048
	600	0.04	0.33	0.34	0.0013	0.013	0.012	141.7	0.0079	0.0036
Pavers	175	0.06	1.13	0.56	0.0018	0.027	0.025	198.1	0.0111	0.0050
Paving Equipment	50	0.11	1.03	0.88	0.0013	0.031	0.029	144.1	0.0080	0.0037
	175	0.05	0.90	0.45	0.0014	0.022	0.020	154.6	0.0086	0.0039
Rollers	100	0.08	1.12	0.81	0.0016	0.038	0.035	172.9	0.0097	0.0044
Rough Terrain Forklifts	100	0.04	1.25	0.64	0.0019	0.013	0.012	204.6	0.0114	0.0052
Rubber Tired Dozers	175	0.14	1.18	1.22	0.0016	0.072	0.067	173.6	0.0097	0.0044
Rubber Tired Loaders	175	0.07	1.02	0.43	0.0015	0.023	0.021	163.2	0.0091	0.0042
Scrapers	600	0.07	0.52	0.59	0.0017	0.023	0.021	179.1	0.0100	0.0046
Skid Steer Loaders	75	0.05	1.12	0.63	0.0017	0.018	0.016	183.2	0.0102	0.0047
Tractors/Loaders/Backhoes	75	0.55	1.83	4.28	0.0017	0.353	0.324	186.2	0.0104	0.0047
	100	0.06	1.07	0.58	0.0015	0.020	0.018	162.9	0.0091	0.0042
	175	0.05	0.94	0.33	0.0015	0.016	0.015	159.2	0.0089	0.0041
Trenchers	75	0.48	2.13	3.76	0.0022	0.283	0.260	244.6	0.0137	0.0062
Aerial Lifts	75	0.03	0.93	0.46	0.0014	0.009	0.008	155.6	0.0087	0.0040
	100	0.02	0.76	0.34	0.0012	0.004	0.004	126.9	0.0071	0.0032
Concrete/Industrial Saws	25	0.29	1.22	2.25	0.0038	0.084	0.077	295.6	0.0168	0.0077
	50	0.20	2.06	1.68	0.0035	0.041	0.037	274.4	0.0158	0.0072
Plate Compactors	25	0.08	0.48	0.57	0.0012	0.022	0.020	78.2	0.0045	0.0020
Light Commercial - Pumps	25	0.19	0.97	1.40	0.0026	0.058	0.053	184.9	0.0106	0.0048
Non-Rental Compressor	100	0.04	0.90	0.48	0.0012	0.034	0.031	134.3	0.0075	0.0034
Non-Rental Generator	50	0.13	1.52	1.02	0.0014	0.039	0.036	148.0	0.0083	0.0038

Source: OFFROAD 2017.

Table C-33 2027 Construction Equipment Emission Factors (grams/hp-hr)

Equipment	HP	VOC	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}	CO ₂	CH ₄	N ₂ O
Agricultural - Construction Equipment	100	0.19	1.25	1.17	0.0003	0.099	0.091	28.1	0.0112	0.0051
Agricultural - Others	600	0.08	0.42	0.68	0.0002	0.029	0.027	18.7	0.0074	0.0034
Bore/Drill Rigs	175	0.05	1.27	0.37	0.0021	0.017	0.016	227.8	0.0127	0.0058
Cranes	300	0.05	0.30	0.47	0.0010	0.020	0.018	110.8	0.0062	0.0028
Excavators	175	0.05	0.98	0.29	0.0016	0.014	0.013	168.4	0.0094	0.0043
Graders	300	0.06	0.35	0.54	0.0014	0.018	0.017	155.1	0.0087	0.0040
Off-Highway Trucks	600	0.04	0.28	0.23	0.0012	0.008	0.008	126.4	0.0071	0.0032
Other Construction Equipment	175	0.08	1.14	0.66	0.0018	0.034	0.032	190.2	0.0106	0.0048
	600	0.04	0.33	0.32	0.0013	0.012	0.011	141.6	0.0079	0.0036
Pavers	175	0.06	1.13	0.52	0.0018	0.025	0.023	198.0	0.0111	0.0050
Paving Equipment	50	0.11	1.02	0.88	0.0013	0.032	0.029	144.1	0.0080	0.0037
	175	0.05	0.90	0.42	0.0014	0.020	0.018	154.6	0.0086	0.0039
Rollers	100	0.07	1.12	0.78	0.0016	0.035	0.032	172.9	0.0097	0.0044
Rough Terrain Forklifts	100	0.04	1.25	0.63	0.0019	0.012	0.011	204.7	0.0114	0.0052
Rubber Tired Dozers	175	0.13	1.18	1.12	0.0016	0.065	0.060	174.0	0.0097	0.0044
Rubber Tired Loaders	175	0.06	1.02	0.38	0.0015	0.020	0.018	163.2	0.0091	0.0042
Scrapers	600	0.06	0.52	0.55	0.0017	0.022	0.020	179.7	0.0100	0.0046
Skid Steer Loaders	75	0.04	1.12	0.61	0.0017	0.016	0.015	183.2	0.0102	0.0047
Tractors/Loaders/Backhoes	75	0.55	1.84	4.29	0.0017	0.353	0.325	186.2	0.0104	0.0047
	100	0.05	1.07	0.56	0.0015	0.017	0.015	162.9	0.0091	0.0041
	175	0.05	0.94	0.29	0.0015	0.014	0.013	159.2	0.0089	0.0041
Trenchers	75	0.47	2.16	3.80	0.0022	0.265	0.244	241.7	0.0135	0.0062
Aerial Lifts	75	0.03	0.94	0.46	0.0014	0.009	0.008	155.8	0.0087	0.0040
	100	0.02	0.75	0.34	0.0012	0.004	0.004	126.4	0.0071	0.0032
Concrete/Industrial Saws	25	0.30	1.23	2.28	0.0038	0.085	0.078	299.4	0.0171	0.0078
	50	0.19	2.05	1.64	0.0035	0.034	0.031	273.9	0.0158	0.0072
Plate Compactors	25	0.08	0.48	0.57	0.0012	0.022	0.020	78.2	0.0045	0.0020
Light Commercial - Pumps	25	0.18	0.97	1.40	0.0026	0.057	0.052	184.9	0.0106	0.0048
Non-Rental Compressor	100	0.04	0.90	0.43	0.0012	0.031	0.029	134.3	0.0075	0.0034
Non-Rental Generator	50	0.13	1.52	1.02	0.0014	0.039	0.036	148.0	0.0083	0.0038

Source: OFFROAD 2017.

Table C-34 2028 Construction Equipment Emission Factors (grams/hp-hr)

Equipment	HP	VOC	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}	CO ₂	CH ₄	N ₂ O
Agricultural - Construction Equipment	100	0.18	1.24	1.09	0.0003	0.093	0.085	28.1	0.0112	0.0051
Agricultural - Others	600	0.08	0.40	0.64	0.0002	0.028	0.025	18.7	0.0074	0.0034
Bore/Drill Rigs	175	0.05	1.28	0.37	0.0021	0.017	0.016	227.8	0.0127	0.0058
Cranes	300	0.05	0.30	0.44	0.0010	0.019	0.017	111.1	0.0062	0.0028
Excavators	175	0.04	0.98	0.27	0.0016	0.013	0.012	168.3	0.0094	0.0043
Graders	300	0.06	0.35	0.49	0.0014	0.017	0.016	155.2	0.0087	0.0040
Off-Highway Trucks	600	0.04	0.28	0.21	0.0012	0.008	0.007	126.4	0.0071	0.0032
Other Construction Equipment	175	0.08	1.14	0.63	0.0018	0.033	0.030	190.2	0.0106	0.0048
	600	0.04	0.33	0.30	0.0013	0.011	0.011	141.3	0.0079	0.0036
Pavers	175	0.06	1.13	0.46	0.0018	0.022	0.020	198.1	0.0111	0.0050
Paving Equipment	50	0.11	1.03	0.88	0.0013	0.031	0.028	144.1	0.0080	0.0037
	175	0.05	0.92	0.40	0.0015	0.021	0.020	157.4	0.0088	0.0040
Rollers	100	0.07	1.12	0.74	0.0016	0.031	0.028	173.0	0.0097	0.0044
Rough Terrain Forklifts	100	0.04	1.24	0.61	0.0019	0.011	0.010	204.9	0.0114	0.0052
Rubber Tired Dozers	175	0.11	1.16	0.85	0.0016	0.050	0.046	174.1	0.0097	0.0044
Rubber Tired Loaders	175	0.06	1.03	0.34	0.0015	0.017	0.015	163.2	0.0091	0.0042
Scrapers	600	0.06	0.51	0.51	0.0017	0.020	0.019	179.9	0.0100	0.0046
Skid Steer Loaders	75	0.04	1.12	0.59	0.0017	0.015	0.014	183.2	0.0102	0.0047
Tractors/Loaders/Backhoes	75	0.55	1.83	4.29	0.0017	0.353	0.324	185.5	0.0104	0.0047
	100	0.05	1.08	0.54	0.0015	0.015	0.014	163.0	0.0091	0.0042
	175	0.04	0.94	0.27	0.0015	0.013	0.012	159.1	0.0089	0.0041
Trenchers	75	0.49	2.20	3.95	0.0022	0.280	0.257	242.7	0.0136	0.0062
Aerial Lifts	75	0.03	0.94	0.46	0.0014	0.009	0.008	155.5	0.0087	0.0040
	100	0.02	0.74	0.34	0.0012	0.004	0.003	125.8	0.0070	0.0032
Concrete/Industrial Saws	25	0.30	1.23	2.29	0.0038	0.085	0.079	299.8	0.0172	0.0078
	50	0.18	2.04	1.60	0.0035	0.028	0.025	274.1	0.0158	0.0072
Plate Compactors	25	0.08	0.48	0.57	0.0012	0.022	0.020	78.2	0.0045	0.0020
Light Commercial - Pumps	25	0.18	0.97	1.39	0.0026	0.056	0.051	184.9	0.0106	0.0048
Non-Rental Compressor	100	0.04	0.90	0.42	0.0012	0.031	0.029	134.3	0.0075	0.0034
Non-Rental Generator	50	0.13	1.52	1.02	0.0014	0.039	0.036	148.0	0.0083	0.0038

Source: OFFROAD 2017.

Table C-35 2029 Construction Equipment Emission Factors (grams/hp-hr)

Equipment	HP	VOC	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}	CO ₂	CH ₄	N ₂ O
Agricultural - Construction Equipment	100	0.17	1.24	1.01	0.0003	0.087	0.080	28.1	0.0112	0.0051
Agricultural - Others	600	0.08	0.39	0.60	0.0002	0.026	0.024	18.7	0.0074	0.0034
Bore/Drill Rigs	175	0.05	1.27	0.35	0.0021	0.017	0.015	227.8	0.0127	0.0058
Cranes	300	0.05	0.30	0.43	0.0010	0.018	0.017	111.2	0.0062	0.0028
Excavators	175	0.04	0.99	0.25	0.0016	0.012	0.011	168.3	0.0094	0.0043
Graders	300	0.06	0.34	0.46	0.0014	0.016	0.015	154.7	0.0086	0.0039
Off-Highway Trucks	600	0.04	0.28	0.20	0.0012	0.007	0.006	126.7	0.0071	0.0032
Other Construction Equipment	175	0.08	1.14	0.62	0.0018	0.032	0.030	190.1	0.0106	0.0048
	600	0.04	0.33	0.29	0.0013	0.011	0.010	140.6	0.0079	0.0036
Pavers	175	0.06	1.13	0.44	0.0018	0.022	0.020	198.0	0.0111	0.0050
Paving Equipment	50	0.11	1.04	0.88	0.0013	0.030	0.028	144.2	0.0081	0.0037
	175	0.05	0.92	0.37	0.0015	0.020	0.018	157.3	0.0088	0.0040
Rollers	100	0.07	1.12	0.72	0.0016	0.029	0.027	173.0	0.0097	0.0044
Rough Terrain Forklifts	100	0.04	1.24	0.60	0.0019	0.011	0.010	204.6	0.0114	0.0052
Rubber Tired Dozers	175	0.10	1.17	0.77	0.0016	0.042	0.039	173.5	0.0097	0.0044
Rubber Tired Loaders	175	0.06	1.03	0.30	0.0015	0.015	0.014	163.3	0.0091	0.0042
Scrapers	600	0.06	0.50	0.47	0.0017	0.019	0.017	180.3	0.0101	0.0046
Skid Steer Loaders	75	0.04	1.12	0.58	0.0017	0.014	0.013	183.3	0.0102	0.0047
Tractors/Loaders/Backhoes	75	0.55	1.84	4.30	0.0017	0.353	0.325	185.7	0.0104	0.0047
	100	0.05	1.08	0.53	0.0015	0.013	0.012	163.0	0.0091	0.0042
	175	0.04	0.94	0.26	0.0015	0.013	0.012	159.0	0.0089	0.0041
Trenchers	75	0.41	2.08	3.48	0.0022	0.238	0.219	244.2	0.0136	0.0062
Aerial Lifts	75	0.03	0.92	0.47	0.0014	0.011	0.011	151.8	0.0085	0.0039
	100	0.02	0.74	0.33	0.0012	0.003	0.003	124.6	0.0070	0.0032
Concrete/Industrial Saws	25	0.30	1.25	2.31	0.0039	0.086	0.080	303.6	0.0172	0.0078
	50	0.17	2.03	1.57	0.0035	0.023	0.021	274.0	0.0157	0.0072
Plate Compactors	25	0.08	0.48	0.57	0.0012	0.022	0.020	78.2	0.0045	0.0020
Light Commercial - Pumps	25	0.18	0.97	1.38	0.0026	0.055	0.050	184.9	0.0106	0.0048
Non-Rental Compressor	100	0.03	0.90	0.40	0.0012	0.028	0.026	134.3	0.0075	0.0034
Non-Rental Generator	50	0.13	1.52	0.97	0.0014	0.032	0.029	148.0	0.0083	0.0038

Source: OFFROAD 2017.

Table C-36 2030 Construction Equipment Emission Factors (grams/hp-hr)

Equipment	HP	VOC	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}	CO ₂	CH ₄	N ₂ O
Agricultural - Construction Equipment	100	0.16	1.24	0.94	0.0003	0.081	0.074	28.1	0.0112	0.0051
Agricultural - Others	600	0.07	0.38	0.56	0.0002	0.024	0.022	18.7	0.0074	0.0034
Bore/Drill Rigs	175	0.05	1.27	0.33	0.0021	0.016	0.015	227.8	0.0127	0.0058
Cranes	300	0.05	0.28	0.40	0.0010	0.017	0.016	111.2	0.0062	0.0028
Excavators	175	0.04	0.99	0.23	0.0016	0.011	0.010	168.3	0.0094	0.0043
Graders	300	0.06	0.34	0.43	0.0014	0.015	0.014	154.7	0.0086	0.0039
Off-Highway Trucks	600	0.04	0.28	0.19	0.0012	0.007	0.006	126.7	0.0071	0.0032
Other Construction Equipment	175	0.07	1.14	0.59	0.0018	0.031	0.028	190.1	0.0106	0.0048
	600	0.04	0.33	0.27	0.0013	0.010	0.010	140.6	0.0079	0.0036
Pavers	175	0.06	1.13	0.41	0.0018	0.020	0.019	198.0	0.0111	0.0050
Paving Equipment	50	0.10	1.03	0.86	0.0013	0.025	0.023	144.2	0.0081	0.0037
	175	0.05	0.92	0.36	0.0015	0.020	0.018	157.3	0.0088	0.0040
Rollers	100	0.06	1.12	0.71	0.0016	0.027	0.025	173.0	0.0097	0.0044
Rough Terrain Forklifts	100	0.04	1.24	0.60	0.0019	0.010	0.009	204.6	0.0114	0.0052
Rubber Tired Dozers	175	0.10	1.17	0.70	0.0016	0.041	0.038	173.5	0.0097	0.0044
Rubber Tired Loaders	175	0.06	1.03	0.28	0.0015	0.014	0.013	163.3	0.0091	0.0042
Scrapers	600	0.06	0.50	0.44	0.0017	0.018	0.017	180.3	0.0101	0.0046
Skid Steer Loaders	75	0.04	1.12	0.57	0.0017	0.013	0.012	183.3	0.0102	0.0047
Tractors/Loaders/Backhoes	75	0.53	1.80	4.18	0.0017	0.348	0.320	185.7	0.0104	0.0047
	100	0.05	1.08	0.52	0.0015	0.012	0.011	163.0	0.0091	0.0042
	175	0.04	0.94	0.24	0.0015	0.012	0.011	159.0	0.0089	0.0041
Trenchers	75	0.38	2.03	3.19	0.0022	0.227	0.209	244.2	0.0136	0.0062
Aerial Lifts	75	0.03	0.92	0.46	0.0014	0.011	0.010	151.8	0.0085	0.0039
	100	0.02	0.74	0.33	0.0012	0.003	0.003	124.6	0.0070	0.0032
Concrete/Industrial Saws	25	0.30	1.24	2.29	0.0038	0.086	0.079	300.6	0.0168	0.0077
	50	0.16	2.02	1.55	0.0035	0.020	0.018	273.2	0.0157	0.0072
Plate Compactors	25	0.08	0.48	0.57	0.0012	0.022	0.020	78.2	0.0045	0.0020
Light Commercial - Pumps	25	0.18	0.97	1.38	0.0026	0.054	0.050	184.9	0.0106	0.0048
Non-Rental Compressor	100	0.03	0.90	0.40	0.0012	0.028	0.026	134.3	0.0075	0.0034
Non-Rental Generator	50	0.13	1.52	0.97	0.0014	0.032	0.029	148.0	0.0083	0.0038

Source: OFFROAD 2017.

Table C-37 2031 Construction Equipment Emission Factors (grams/hp-hr)

Equipment	HP	VOC	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}	CO ₂	CH ₄	N ₂ O
Agricultural - Construction Equipment	100	0.15	1.23	0.87	0.0003	0.075	0.069	28.1	0.0112	0.0051
Agricultural - Others	600	0.07	0.37	0.52	0.0002	0.023	0.021	18.7	0.0074	0.0034
Bore/Drill Rigs	175	0.05	1.27	0.31	0.0021	0.015	0.014	227.8	0.0127	0.0058
Cranes	300	0.04	0.28	0.38	0.0010	0.016	0.015	111.2	0.0062	0.0028
Excavators	175	0.04	0.98	0.22	0.0016	0.011	0.010	168.3	0.0094	0.0043
Graders	300	0.05	0.34	0.38	0.0014	0.013	0.012	154.7	0.0086	0.0039
Off-Highway Trucks	600	0.04	0.27	0.17	0.0012	0.007	0.006	126.7	0.0071	0.0032
Other Construction Equipment	175	0.07	1.14	0.54	0.0018	0.029	0.027	190.1	0.0106	0.0048
	600	0.04	0.33	0.25	0.0013	0.010	0.009	140.6	0.0079	0.0036
Pavers	175	0.05	1.13	0.37	0.0018	0.019	0.017	198.1	0.0111	0.0050
Paving Equipment	50	0.08	1.01	0.84	0.0013	0.022	0.020	144.2	0.0081	0.0037
	175	0.05	0.91	0.31	0.0015	0.018	0.016	157.1	0.0088	0.0040
Rollers	100	0.06	1.11	0.69	0.0016	0.026	0.024	173.0	0.0097	0.0044
Rough Terrain Forklifts	100	0.04	1.24	0.59	0.0019	0.010	0.009	204.6	0.0114	0.0052
Rubber Tired Dozers	175	0.10	1.17	0.65	0.0016	0.040	0.037	173.5	0.0097	0.0044
Rubber Tired Loaders	175	0.05	1.03	0.26	0.0015	0.013	0.012	163.3	0.0091	0.0042
Scrapers	600	0.06	0.49	0.41	0.0017	0.017	0.016	180.3	0.0101	0.0046
Skid Steer Loaders	75	0.04	1.12	0.56	0.0017	0.012	0.011	183.3	0.0102	0.0047
Tractors/Loaders/Backhoes	75	0.53	1.80	4.18	0.0017	0.348	0.320	185.7	0.0104	0.0047
	100	0.05	1.08	0.50	0.0015	0.011	0.010	163.0	0.0091	0.0042
	175	0.04	0.94	0.23	0.0015	0.011	0.011	159.0	0.0089	0.0041
Trenchers	75	0.37	1.99	3.08	0.0022	0.223	0.205	244.2	0.0136	0.0062
Aerial Lifts	75	0.03	0.92	0.46	0.0014	0.011	0.010	151.8	0.0085	0.0039
	100	0.02	0.74	0.32	0.0012	0.003	0.003	124.6	0.0070	0.0032
Concrete/Industrial Saws	25	0.30	1.23	2.27	0.0038	0.085	0.078	297.8	0.0164	0.0075
	50	0.16	2.02	1.54	0.0035	0.017	0.016	273.7	0.0157	0.0072
Plate Compactors	25	0.08	0.48	0.57	0.0012	0.022	0.020	78.2	0.0045	0.0020
Light Commercial - Pumps	25	0.18	0.97	1.38	0.0026	0.054	0.049	184.9	0.0106	0.0048
Non-Rental Compressor	100	0.03	0.90	0.39	0.0012	0.027	0.025	134.3	0.0075	0.0034
Non-Rental Generator	50	0.13	1.52	0.97	0.0014	0.032	0.029	148.0	0.0083	0.0038

Source: OFFROAD 2017.

Table C-38 2032 Construction Equipment Emission Factors (grams/hp-hr)

Equipment	HP	VOC	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}	CO ₂	CH ₄	N ₂ O
Agricultural - Construction Equipment	100	0.14	1.23	0.80	0.0003	0.070	0.065	28.1	0.0112	0.0051
Agricultural - Others	600	0.07	0.36	0.49	0.0002	0.021	0.020	18.7	0.0074	0.0034
Bore/Drill Rigs	175	0.05	1.27	0.30	0.0021	0.015	0.013	227.8	0.0127	0.0058
Cranes	300	0.04	0.28	0.35	0.0010	0.015	0.014	111.2	0.0062	0.0028
Excavators	175	0.04	0.98	0.20	0.0016	0.010	0.009	168.3	0.0094	0.0043
Graders	300	0.05	0.34	0.34	0.0014	0.012	0.011	154.7	0.0086	0.0039
Off-Highway Trucks	600	0.04	0.27	0.16	0.0012	0.006	0.006	126.7	0.0071	0.0032
Other Construction Equipment	175	0.07	1.14	0.50	0.0018	0.027	0.025	190.1	0.0106	0.0048
	600	0.04	0.33	0.24	0.0013	0.009	0.009	140.6	0.0079	0.0036
Pavers	175	0.05	1.13	0.35	0.0018	0.018	0.017	198.1	0.0111	0.0050
Paving Equipment	50	0.08	1.00	0.84	0.0013	0.020	0.019	144.2	0.0081	0.0037
	175	0.05	0.91	0.30	0.0015	0.018	0.016	157.3	0.0088	0.0040
Rollers	100	0.06	1.11	0.67	0.0016	0.025	0.023	173.0	0.0097	0.0044
Rough Terrain Forklifts	100	0.04	1.24	0.58	0.0019	0.009	0.009	204.6	0.0114	0.0052
Rubber Tired Dozers	175	0.09	1.16	0.61	0.0016	0.039	0.036	173.5	0.0097	0.0044
Rubber Tired Loaders	175	0.05	1.03	0.24	0.0015	0.013	0.012	163.3	0.0091	0.0042
Scrapers	600	0.06	0.49	0.39	0.0017	0.017	0.015	180.3	0.0101	0.0046
Skid Steer Loaders	75	0.04	1.12	0.55	0.0017	0.011	0.010	183.3	0.0102	0.0047
Tractors/Loaders/Backhoes	75	0.52	1.75	3.96	0.0017	0.348	0.320	185.7	0.0104	0.0047
	100	0.05	1.08	0.50	0.0015	0.011	0.010	163.0	0.0091	0.0042
	175	0.04	0.94	0.22	0.0015	0.011	0.010	159.0	0.0089	0.0041
Trenchers	75	0.37	1.99	3.07	0.0022	0.223	0.205	244.2	0.0136	0.0062
Aerial Lifts	75	0.03	0.92	0.45	0.0014	0.010	0.010	151.8	0.0085	0.0039
	100	0.02	0.74	0.32	0.0012	0.003	0.003	124.6	0.0070	0.0032
Concrete/Industrial Saws	25	0.30	1.23	2.27	0.0038	0.085	0.078	298.2	0.0165	0.0075
	50	0.15	2.01	1.52	0.0035	0.015	0.014	273.0	0.0157	0.0071
Plate Compactors	25	0.08	0.48	0.57	0.0012	0.022	0.020	78.2	0.0045	0.0020
Light Commercial - Pumps	25	0.18	0.97	1.38	0.0026	0.053	0.049	184.9	0.0106	0.0048
Non-Rental Compressor	100	0.03	0.90	0.37	0.0012	0.026	0.024	134.3	0.0075	0.0034
Non-Rental Generator	50	0.13	1.52	0.97	0.0014	0.032	0.029	148.0	0.0083	0.0038

Source: OFFROAD 2017.

Table C-39 2033 Construction Equipment Emission Factors (grams/hp-hr)

Equipment	HP	VOC	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}	CO ₂	CH ₄	N ₂ O
Agricultural - Construction Equipment	100	0.13	1.22	0.74	0.0003	0.065	0.060	28.1	0.0112	0.0051
Agricultural - Others	600	0.07	0.35	0.46	0.0002	0.020	0.018	18.7	0.0074	0.0034
Bore/Drill Rigs	175	0.04	1.27	0.28	0.0021	0.013	0.012	227.8	0.0127	0.0058
Cranes	300	0.04	0.28	0.33	0.0010	0.014	0.013	111.2	0.0062	0.0028
Excavators	175	0.04	0.98	0.19	0.0016	0.009	0.009	168.3	0.0094	0.0043
Graders	300	0.05	0.34	0.31	0.0014	0.011	0.010	154.7	0.0086	0.0039
Off-Highway Trucks	600	0.04	0.27	0.15	0.0012	0.006	0.006	126.7	0.0071	0.0032
Other Construction Equipment	175	0.07	1.14	0.48	0.0018	0.025	0.023	190.1	0.0106	0.0048
	600	0.03	0.33	0.22	0.0013	0.009	0.008	140.6	0.0079	0.0036
Pavers	175	0.05	1.13	0.33	0.0018	0.017	0.016	198.1	0.0111	0.0050
Paving Equipment	50	0.08	1.00	0.83	0.0013	0.018	0.016	144.2	0.0081	0.0037
	175	0.05	0.91	0.29	0.0015	0.017	0.015	157.3	0.0088	0.0040
Rollers	100	0.06	1.11	0.65	0.0016	0.023	0.021	173.0	0.0097	0.0044
Rough Terrain Forklifts	100	0.04	1.24	0.58	0.0019	0.009	0.008	204.6	0.0114	0.0052
Rubber Tired Dozers	175	0.09	1.16	0.61	0.0016	0.039	0.036	173.5	0.0097	0.0044
Rubber Tired Loaders	175	0.05	1.03	0.22	0.0015	0.012	0.011	163.3	0.0091	0.0042
Scrapers	600	0.06	0.49	0.37	0.0017	0.015	0.014	180.3	0.0101	0.0046
Skid Steer Loaders	75	0.04	1.12	0.54	0.0017	0.010	0.009	183.3	0.0102	0.0047
Tractors/Loaders/Backhoes	75	0.51	1.73	3.84	0.0017	0.349	0.321	185.7	0.0104	0.0047
	100	0.05	1.08	0.49	0.0015	0.010	0.009	163.0	0.0091	0.0042
	175	0.04	0.94	0.21	0.0015	0.010	0.009	159.0	0.0089	0.0041
Trenchers	75	0.37	1.99	3.07	0.0022	0.224	0.206	244.2	0.0136	0.0062
Aerial Lifts	75	0.03	0.92	0.44	0.0014	0.009	0.008	151.8	0.0085	0.0039
	100	0.02	0.74	0.32	0.0012	0.003	0.003	124.6	0.0070	0.0032
Concrete/Industrial Saws	25	0.30	1.23	2.28	0.0038	0.085	0.078	298.6	0.0168	0.0077
	50	0.15	2.01	1.51	0.0035	0.013	0.012	273.5	0.0157	0.0072
Plate Compactors	25	0.08	0.48	0.57	0.0012	0.022	0.020	78.2	0.0045	0.0020
Light Commercial - Pumps	25	0.18	0.97	1.38	0.0026	0.053	0.049	184.9	0.0106	0.0048
Non-Rental Compressor	100	0.03	0.90	0.32	0.0012	0.024	0.022	134.3	0.0075	0.0034
Non-Rental Generator	50	0.13	1.52	0.82	0.0014	0.010	0.009	148.0	0.0083	0.0038

Source: OFFROAD 2017.

Table C-40 2034 Construction Equipment Emission Factors (grams/hp-hr)

Equipment	HP	VOC	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}	CO ₂	CH ₄	N ₂ O
Agricultural - Construction Equipment	100	0.13	1.22	0.69	0.0003	0.061	0.056	28.1	0.0112	0.0051
Agricultural - Others	600	0.06	0.35	0.43	0.0002	0.019	0.017	18.7	0.0074	0.0034
Bore/Drill Rigs	175	0.04	1.27	0.27	0.0021	0.012	0.011	227.8	0.0127	0.0058
Cranes	300	0.04	0.27	0.32	0.0010	0.014	0.013	111.2	0.0062	0.0028
Excavators	175	0.04	0.98	0.18	0.0016	0.009	0.008	168.3	0.0094	0.0043
Graders	300	0.05	0.34	0.28	0.0014	0.010	0.009	154.7	0.0086	0.0039
Off-Highway Trucks	600	0.04	0.27	0.15	0.0012	0.006	0.005	126.7	0.0071	0.0032
Other Construction Equipment	175	0.06	1.14	0.47	0.0018	0.023	0.021	190.1	0.0106	0.0048
	600	0.03	0.33	0.20	0.0013	0.008	0.007	140.6	0.0079	0.0036
Pavers	175	0.05	1.13	0.30	0.0018	0.015	0.014	198.1	0.0111	0.0050
Paving Equipment	50	0.07	1.00	0.82	0.0013	0.015	0.014	144.2	0.0081	0.0037
	175	0.04	0.91	0.28	0.0015	0.016	0.014	157.3	0.0088	0.0040
Rollers	100	0.06	1.11	0.64	0.0016	0.022	0.020	173.0	0.0097	0.0044
Rough Terrain Forklifts	100	0.04	1.24	0.57	0.0019	0.009	0.008	204.6	0.0114	0.0052
Rubber Tired Dozers	175	0.09	1.16	0.60	0.0016	0.037	0.034	173.5	0.0097	0.0044
Rubber Tired Loaders	175	0.05	1.03	0.21	0.0015	0.011	0.010	163.3	0.0091	0.0042
Scrapers	600	0.05	0.48	0.34	0.0017	0.014	0.013	180.3	0.0101	0.0046
Skid Steer Loaders	75	0.04	1.12	0.53	0.0017	0.009	0.009	183.3	0.0102	0.0047
Tractors/Loaders/Backhoes	75	0.51	1.72	3.75	0.0017	0.349	0.321	185.7	0.0104	0.0047
	100	0.05	1.08	0.48	0.0015	0.009	0.008	163.0	0.0091	0.0042
	175	0.04	0.94	0.20	0.0015	0.009	0.009	159.0	0.0089	0.0041
Trenchers	75	0.37	1.98	3.01	0.0022	0.214	0.197	244.2	0.0136	0.0062
Aerial Lifts	75	0.03	0.92	0.44	0.0014	0.008	0.007	151.8	0.0085	0.0039
	100	0.02	0.74	0.32	0.0012	0.003	0.003	124.6	0.0070	0.0032
Concrete/Industrial Saws	25	0.30	1.24	2.30	0.0038	0.086	0.079	302.1	0.0175	0.0080
	50	0.15	2.01	1.51	0.0035	0.011	0.011	274.1	0.0157	0.0072
Plate Compactors	25	0.08	0.48	0.57	0.0012	0.022	0.020	78.2	0.0045	0.0020
Light Commercial - Pumps	25	0.18	0.97	1.38	0.0026	0.053	0.049	184.9	0.0106	0.0048
Non-Rental Compressor	100	0.03	0.90	0.29	0.0012	0.022	0.021	134.3	0.0075	0.0034
Non-Rental Generator	50	0.13	1.52	0.82	0.0014	0.006	0.005	148.0	0.0083	0.0038

Source: OFFROAD 2017.

Table C-41 2035 Construction Equipment Emission Factors (grams/hp-hr)

Equipment	HP	VOC	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}	CO ₂	CH ₄	N ₂ O
Agricultural - Construction Equipment	100	0.12	1.22	0.64	0.0003	0.056	0.052	28.1	0.0112	0.0051
Agricultural - Others	600	0.06	0.34	0.40	0.0002	0.018	0.016	18.7	0.0074	0.0034
Bore/Drill Rigs	175	0.04	1.27	0.27	0.0021	0.011	0.011	227.8	0.0127	0.0058
Cranes	300	0.04	0.27	0.30	0.0010	0.013	0.012	111.2	0.0062	0.0028
Excavators	175	0.04	0.98	0.17	0.0016	0.008	0.007	168.3	0.0094	0.0043
Graders	300	0.05	0.34	0.24	0.0014	0.009	0.008	154.7	0.0086	0.0039
Off-Highway Trucks	600	0.04	0.27	0.14	0.0012	0.005	0.005	126.7	0.0071	0.0032
Other Construction Equipment	175	0.06	1.14	0.45	0.0018	0.022	0.020	190.1	0.0106	0.0048
	600	0.03	0.32	0.19	0.0013	0.007	0.007	140.6	0.0079	0.0036
Pavers	175	0.05	1.13	0.29	0.0018	0.014	0.013	198.1	0.0111	0.0050
Paving Equipment	50	0.07	0.99	0.80	0.0013	0.011	0.010	144.2	0.0081	0.0037
	175	0.04	0.91	0.27	0.0015	0.015	0.014	157.3	0.0088	0.0040
Rollers	100	0.06	1.11	0.63	0.0016	0.021	0.019	173.0	0.0097	0.0044
Rough Terrain Forklifts	100	0.04	1.24	0.57	0.0019	0.009	0.008	204.6	0.0114	0.0052
Rubber Tired Dozers	175	0.09	1.16	0.57	0.0016	0.034	0.031	173.5	0.0097	0.0044
Rubber Tired Loaders	175	0.05	1.03	0.20	0.0015	0.010	0.009	163.3	0.0091	0.0042
Scrapers	600	0.05	0.48	0.32	0.0017	0.013	0.012	180.3	0.0101	0.0046
Skid Steer Loaders	75	0.04	1.12	0.52	0.0017	0.009	0.008	183.3	0.0102	0.0047
Tractors/Loaders/Backhoes	75	0.50	1.71	3.68	0.0017	0.349	0.321	185.7	0.0104	0.0047
	100	0.05	1.08	0.48	0.0015	0.008	0.007	163.0	0.0091	0.0042
	175	0.04	0.94	0.19	0.0015	0.009	0.008	159.0	0.0089	0.0041
Trenchers	75	0.36	1.95	2.90	0.0022	0.213	0.196	244.2	0.0136	0.0062
Aerial Lifts	75	0.03	0.92	0.43	0.0014	0.007	0.006	151.8	0.0085	0.0039
	100	0.02	0.74	0.32	0.0012	0.003	0.003	124.6	0.0070	0.0032
Concrete/Industrial Saws	25	0.30	1.23	2.28	0.0038	0.085	0.078	299.4	0.0176	0.0080
	50	0.15	2.01	1.50	0.0035	0.010	0.009	274.3	0.0157	0.0072
Plate Compactors	25	0.08	0.48	0.57	0.0012	0.022	0.020	78.2	0.0045	0.0020
Light Commercial - Pumps	25	0.18	0.97	1.37	0.0026	0.053	0.049	184.9	0.0106	0.0048
Non-Rental Compressor	100	0.03	0.90	0.24	0.0012	0.020	0.019	134.3	0.0075	0.0034
Non-Rental Generator	50	0.13	1.52	0.82	0.0014	0.006	0.005	148.0	0.0083	0.0038

Source: OFFROAD 2017.

1.5.3 Construction Schedules

Tables C-42 through C-45 provide the construction schedules for the proposed project and Alternative 4 and a table summarizing the project elements (including a description of each project, project location, and approximate areas). The construction schedules indicate that construction will begin in 2021 and be completed in 2035. Notably, the construction schedules are intended to provide a reasonable and conservative representation of project-related construction activities for emissions estimation purposes based on information available at the time of the analysis.

Table C-42: Demolition by Phase – Proposed Project

Phase	Map ID #	Facility	Approximate Area (SF) ^a	Current Use	Disposition of Facility/Use
Phase 1a					
1a	A	Airport Administration Building	132,000	Airport Administration Offices	Building to be demolished. Function to be moved to a new building constructed on the west side of airport as part of the proposed project.
1a	C	Facilities Management Department (FMD) Administration Building	10,000	FMD administrative offices	Building to be demolished. Function moved to new support facilities complex developed on the north side to be developed separate from the proposed project.
1a	D	Triturator & Wash Rack	3,500	Lavatory waste trituration and vehicle washing	Buildings to be demolished. Function relocated to a smaller consolidated facility within the south side support facilities area.
1a	E	United Cargo	17,000	Aircraft belly cargo handling	Building to be demolished. Function relocated to the consolidated Airline Facility Support Building on the south side (east of the new T1) to be developed separate from the proposed project.
1a	F	Southwest Cargo	32,000	Aircraft belly cargo handling	Building to be demolished. Function relocated to the consolidated Airline Facility Support Building on the south side (east of the new T1) to be developed separate from the proposed project.
1a	G	Air Freight (Southwest, Alaska, Hawaiian, Delta, jetBlue)	30,000	Aircraft belly cargo handling	Building to be demolished. Function relocated to the consolidated Airline Support Building on the south side (east of the new T1) to be developed separate from the proposed project.
1a	H	United Airlines Hangar and Terminal Building (a.k.a. the ASIG building or Menzies Aviation Maintenance) ^b	9,000	Fueling administration and support facility	Building to be demolished. Function relocated to the consolidated Airline Support Building on the south side (east of the new T1) to be developed separate from the proposed project.
1a	I	American Airlines Maintenance	12,000	Airline maintenance facility	Building to be demolished. Function relocated to the consolidated Airline Support Building on the south side (east of the new T1) to be developed separate from the proposed project.
1a	J	FMD Workshop; Paint Shop & Procurement	29,000	FMD maintenance workshop	Building to be demolished. Function moved to new support facilities complex on the north side to be developed separate from the proposed project.
1a	K	FMD Maintenance Shops	25,000	FMD maintenance workshop	Building to be demolished. Function moved to new support facilities complex on the north side to be developed separate from the proposed project.

Table C-42: Demolition by Phase – Proposed Project

Phase	Map ID #	Facility	Approximate Area (SF) ^a	Current Use	Disposition of Facility/Use
1a	L	Terminal 1 (Gates 1, 1A, & 2)	36,000	Passenger terminal	Partial structure to be demolished to make way for construction of initial phase of new Terminal 1 (East).
1a	M	On-Airport Roadways	590,000	Arrivals/departure entry roadway	Airport roads and associated features to be demolished for construction of new roadway and parking improvements in Phase 1a.
1a	N	Administration Building Parking Lot & Access Roads	390,000	Airport administration parking and access roads	Surface parking, airport roads, and associated features to be demolished for construction of new roadway improvements in Phase 1a.
1a	O	Taxiway B	300,000	Taxiway B	Taxiway pavement to be demolished and replaced in conjunction with new T1 improvements in Phase 1a.
1a	P	Employee/Public Parking Lots	1,003,000	Employee and public parking	Surface parking lot and associated features to be demolished in conjunction with new T1 improvements in Phase 1a.
1a	Q	Terminal 1 Parking Lot	270,000	Terminal 1 surface parking lot	Surface parking lot and associated features to be demolished for construction of new roadway and parking improvements in Phase 1a.
1a	R	Aircraft Apron	1,415,000	Aircraft apron	Aircraft apron pavement to be demolished and replaced in conjunction with initial phase of new T1.
Phase 1a - Buildings Total			335,500		
Phase 1a - Surface Elements Total			3,968,000		
Phase 1a - Total			4,303,500		
Phase 1b					
1b	S	Terminal 1	300,000	Passenger terminal	Building to be demolished and replaced with remainder of new T1.
1b	T	Terminal 1 Parking Lot	300,000	Surface parking lot	Surface parking lot and associated features to be demolished for construction of remainder of new T1 Parking Structure (East)
1b	U	Aircraft Apron	410,000	Aircraft apron	Aircraft apron pavement to be demolished and replaced in conjunction with remaining phase of new T1.
1b	V	Employee Parking Lot	490,000	Employee Parking Lot	Surface parking lot and associated features to be demolished for construction of RON area and nearby taxiway improvements.
1b	W	Taxiway B	300,000	Taxiway B	Taxiway pavement to be demolished and replaced in conjunction with construction of new RON area nearby.
Phase 1b - Buildings Total			300,000		
Phase 1b - Surface Elements Total			1,500,000		
Phase 1b - Total			1,800,000		

Table C-42: Demolition by Phase – Proposed Project

Phase	Map ID #	Facility	Approximate Area (SF) ^a	Current Use	Disposition of Facility/Use
Phase 2a					
2a	X	Aircraft Apron	440,000	Aircraft apron	Aircraft apron pavement to be demolished and replaced in conjunction with construction of new concourse (stinger) at T2-West.
2a	Y	NTC Parking Lot	250,000	Public and employee parking lot	Surface parking lot and associated features to be replaced with parking improvements in Phase 2a.
2a	Z	On-Airport Roadways	35,000	On-airport roadways	Airport roads and associated features to be demolished and replaced with roadway improvements in Phase 2a.
Phase 2a - Buildings Total			0		
Phase 2a - Surface Elements Total			725,000		
Phase 2a - Total			725,000		
Phase 2b					
2b	AA	Terminal 2 East	350,000	Passenger terminal	Building to be demolished and replaced with new apron area and new concourse between the new T1 and existing T2-East
2b	AB	Aircraft Apron	540,000	Aircraft apron	Aircraft apron pavement to be demolished and replaced with new apron area and new concourse between the new T1 and existing T2-East
Phase 2b - Buildings Total			350,000		
Phase 2b - Surface Elements Total			540,000		
Phase 2b - Total			890,000		
Project Total (Phases 1 and 2) [demolition]					
Project Total - Buildings			985,500		
Project Total - Surface Elements			6,733,000		
Grand Total			7,718,500		

Table C-43: New Construction by Phase – Proposed Project

Phase	Map ID #	Facility Type	Approximate Area (square feet)	Building Height (feet above ground level)	Building Stories
Sub-Phase 1a					
1a	1	Terminal 1 - 22 Gates	810,000	90 ^a	3
1a	3	Terminal 1 Parking Structure - East	1,500,000	60 ^b	5
1a	4	Airport Administration Building	150,000	95	6
1a	5	Existing CUP Capacity Expansion	12,000	45 (Existing)	1 (Existing)
1a	6	Aircraft Apron	1,230,000	-	-
1a	7	Taxiway A	385,000	-	-
1a	8	Taxiway B	360,000	-	-
1a	9	Terminal Area Roads-On Grade	310,000	-	-
1a	10	Terminal Area Roads-Structure	170,000	-	-
1a	11	Airport Access Road-On Grade	165,000	-	-
1a	12	Airport Access Road-Structure	9,300	-	-
1a	18	Aircraft Overnight Parking	230,000	-	-
Phase 1a - Buildings Total			2,472,000		
Phase 1a - Surface Elements Total			2,859,300		
Phase 1a - Total			5,331,300		
Phase 1b					
1b	13	Terminal 1 - 8 Gates	400,000	90 ^a	3
1b	14	Terminal 1 Parking Structure - West	1,280,000	60 ^b	5
1b	15	Aircraft Apron	260,000	-	-
1b	16	Taxiway A	380,000	-	-
1b	17	Taxiway B	290,000	-	-
1b	19	Terminal Area Road-On Grade	20,000	-	-
Phase 1b - Buildings Total			1,680,000		
Phase 1b - Surface Elements Total			950,000		
Phase 1b - Total			2,630,000		
Phase 2a					
2a	20	Terminal T2-West (Stinger) - 7 Gates	450,000	65	3
2a	21	Commercial Development Opportunity	400,000	90	10
2a	22	Aircraft Apron	310,000	-	-
2a	23	Terminal Area Road-Structure	20,000	-	-

Table C-43: New Construction by Phase – Proposed Project

Phase	Map ID #	Facility Type	Approximate Area (square feet)	Building Height (feet above ground level)	Building Stories
2a	24	Terminal Area Road-On Grade	60,000	-	-
2a	25	Surface Parking Lot	130,000	-	-
Phase 2a - Buildings Total			850,000		
Phase 2a - Surface Elements Total			520,000		
Phase 2a – Total			1,370,000		
Phase 2b					
2b	26	Terminal T2-East Connector - 7 Gates	250,000	65	3
2b	27	Aircraft Apron	560,000	-	-
Phase 2b - Buildings Total			250,000		
Phase 2b - Surface Elements Total			560,000		
Phase 2b - Total			810,000		
Project Total (Phases 1 and 2) [new construction]					
<i>Project Total - Buildings</i>			<i>5,252,000</i>		
<i>Project Total - Surface Elements</i>			<i>4,889,300</i>		
<i>Grand Total</i>			<i>10,141,300</i>		

Table C-44: Demolition by Phase – Alternative 4

Phase	Map ID #	Facility	Approximate Area (SF) ^a	Current Use	Disposition of Facility/Use
Phase 1a (2021-2024)					
1a	A	Airport Administration Building	132,000	Airport Administration Offices	Building to be demolished. Function to be moved to a new building constructed on the west side of airport as part of the proposed project.
1a	C	Facilities Maintenance Division (FMD) Administration Building	10,000	FMD administrative offices	Building to be demolished. Function moved to new support facilities complex developed on the north side to be developed separate from the proposed project.
1a	D	Triturator and Wash Rack	3,500	Lavatory waste trituration and vehicle washing	Buildings to be demolished. Function relocated to a smaller consolidated facility within the south side support facilities area.
1a	E	United Cargo	17,000	Aircraft belly cargo handling	Building to be demolished. Function relocated to the consolidated Airline Facility Support Building on the south side (east of the new T1) to be developed separate from the proposed project.
1a	F	Southwest Cargo	32,000	Aircraft belly cargo handling	Building to be demolished. Function relocated to the consolidated Airline Facility Support Building on the south side (east of the new T1) to be developed separate from the proposed project.
1a	G	Air Freight (Southwest, Alaska, Hawaiian, Delta, jetBlue)	30,000	Aircraft belly cargo handling	Building to be demolished. Function relocated to the consolidated Airline Support Building on the south side (east of the new T1) to be developed separate from the proposed project.
1a	H	Menzies Aviation Maintenance	9,000	Fueling administration and support facility	Building to be demolished. Function relocated to the consolidated Airline Support Building on the south side (east of the new T1) to be developed separate from the proposed project.
1a	I	American Airlines Maintenance	12,000	Airline maintenance facility	Building to be demolished. Function relocated to the consolidated Airline Support Building on the south side (east of the new T1) to be developed separate from the proposed project.
1a	J	FMD Workshop; Paint Shop and Procurement	29,000	FMD maintenance workshop	Building to be demolished. Function moved to new support facilities complex on the north side to be developed separate from the proposed project.
1a	K	FMD Maintenance Shops	25,000	FMD maintenance workshop	Building to be demolished. Function moved to new support facilities complex on the north side to be developed separate from the proposed project.
1a	L	Terminal 1 (Gates 1, 1A, and 2)	36,000	Passenger terminal	Partial structure to be demolished to make way for construction of initial phase of new Terminal 1 (East).
1a	M	On-Airport Roadways	590,000	Arrivals/departure entry roadway	Airport roads and associated features to be demolished for construction of new roadway and parking improvements in Phase 1a.
1a	N	Administration Building Parking Lot and Access Roads	390,000	Airport administration parking and access roads	Surface parking, airport roads, and associated features to be demolished for construction of new roadway improvements in Phase 1a.

Table C-44: Demolition by Phase – Alternative 4

Phase	Map ID #	Facility	Approximate Area (SF) ^a	Current Use	Disposition of Facility/Use
1a	O	Taxiway B	585,000	Taxiway B	Taxiway pavement to be demolished and replaced in conjunction with new T1 improvements in Phase 1a.
1a	P	Employee/Public Parking Lots	1,493,000	Employee and public parking	Surface parking lot and associated features to be demolished in conjunction with new T1 improvements in Phase 1a.
1a	Q	Terminal 1 Parking Lot	470,000	Terminal 1 surface parking lot	Surface parking lot and associated features to be demolished for construction of new roadway and parking improvements in Phase 1a.
1a	R	Aircraft Apron	1,265,000	Aircraft apron	Aircraft apron pavement to be demolished and replaced in conjunction with initial phase of new T1.
		Phase 1a - Buildings Total	335,500		
		Phase 1a - Surface Elements Total	4,793,000		
		Phase 1a - Total	5,128,500		
Phase 1b (2024-2026)					
1b	S	Terminal 1	300,000	Passenger terminal	Building to be demolished and replaced with remainder of new T1.
1b	T	Terminal 1 Parking Lot	100,000	Surface parking lot	Surface parking lot and associated features to be demolished for construction of remainder of new T1 Parking Structure (East)
1b	U	Aircraft Apron	580,000	Aircraft apron	Aircraft apron pavement to be demolished and replaced in conjunction with remaining phase of new T1.
		Phase 1b - Buildings Total	300,000		
		Phase 1b - Surface Elements Total	680,000		
		Phase 1b - Total	980,000		
Project Total (Phase 1) [demolition]					
		Buildings	635,500		
		Surface Elements	5,473,000		
		Grand Total	6,108,500		

Table C-45: New Construction by Phase – Alternative 4

Phase	Map ID #	Facility Type	Approximate Area (square feet)	Building Height (feet above ground level)	Building Stories
Phase 1a (2021-2024)					
1a	1	Terminal 1 - 19 Gates	835,000	90 ^a	3
1a	3	Terminal 1 Parking Plaza	2,250,000	60 ^b	5
1a	4	Airport Administration Building	150,000	84	5
1a	5	Existing CUP Capacity Expansion/TES	12,000	45 (Existing)	1 (Existing)
1a	6	Aircraft Apron	1,120,000	-	-
1a	7	Taxiway A	506,000	-	-
1a	8	Taxiway B	640,000	-	-
1a	9	Terminal Area Roads-On Grade	310,000	-	-
1a	10	Terminal Area Roads-Structure	170,000	-	-
1a	11	Airport Access Road-On Grade	165,000	-	-
1a	12	Airport Access Road-Structure	9,300	-	-
1b	18	Aircraft Overnight Parking	230,000	-	-
Phase 1a - Buildings Total			3,247,000		
Phase 1a - Surface Elements Total			3,150,300		
Phase 1a - Total			6,397,300		
Phase 1b (2024-2026)					
1b	13	Terminal 1 - 11 Gates	375,000	65	3
1b	14	Aircraft Apron	285,000	-	-
1b	15	Taxiway A	269,000	-	-
1b	17	Terminal Area Road-On Grade	20,000	-	-
1b	18	Parking Lot	100,000		
Phase 1b - Buildings Total			375,000		
Phase 1b - Surface Elements Total			674,000		
Phase 1b - Total			1,049,000		
Project Total (Phase 1) [new construction]					
	Buildings		3,622,000		
	Surface Elements		3,824,300		
	Grand Total		7,446,300		

1.5.4 Hours of Construction

Tables C-46 and C-47 provide lists of the construction equipment types and total number of operating hours by equipment type during each major phase of project development (i.e., Phases 1a, 1b, 2a, and 2b). These data were used to estimate construction-related air pollutant, pollutant precursor, and GHG emissions for the proposed project and Alternative 4.

The types of construction activities and equipment/vehicle activity data (e.g., equipment mixes/operating times) were estimated using the Transportation Research Board's (TRB's) Airport Construction Emissions Inventory Tool (ACEIT). The ACEIT was developed by the TRB to better ensure how construction equipment is characterized and to more consistently represent the level of activity data that is used in the preparation of airport-related assessments. According to documentation prepared by the TRB for ACEIT, the activity data (hours of use) that is output by the tool was developed for each type of equipment based on expert engineering judgement and experience with airport construction projects.

Table C-46: Hours of Construction – Proposed Project

Proposed Project - Phase 1A (2021-2024)

Equipment	Hours of Operation
40 Ton Crane	2,043
90 Ton Crane	13,243
Air Compressor	1,059
Asphalt Paver	892
Backhoe	13,132
Caisson Drilling Rig	750
Chain Saw	881
Chipper/Stump Grinder	881
Concrete Pump	947
Concrete Ready Mix Trucks	6,117
Concrete Saws	1,059
Concrete Truck	8,785
Curb/Gutter Paver	1,090
Distributing Tanker	433
Dozer	10,329
Dump Truck	16,969
Dump Truck (12 cy)	9,998
Excavator	11,335
Flatbed Truck	6,540
Fork Truck	114,284
Forklift	1,500
Generator	13,938
Grader	354
High Lift	32,476
Hydroseeder	319
Loader	4,538
Man Lift	97,440
Man Lift (Fascia Construction)	912
Material Deliveries	2,305
Off-Road Truck	319
Other General Equipment	14,908
Pickup Truck	36,494
Pumps	2,544
Roller	4,241
Rubber Tired Loader	1,059
Scraper	1,323
Skid Steer Loader	2,536
Slip Form Paver	1,059
Surfacing Equipment (Grooving)	1,567
Survey Crew Trucks	389
Tool Truck	25,865
Tractor Trailer- Material Delivery	30,880
Tractor Trailer- Steel Deliveries	2,796
Tractor Trailers Temp Fac.	160
Tractors/Loader/Backhoe	13,825
Trencher	1,995
Trowel Machine	1,884
Vibratory Compactor	2,181
Water Truck	23,040

Proposed Project - Phase 1B (2024-2026)

Equipment	Hours of Operation
40 Ton Crane	1,498
90 Ton Crane	6,828
Air Compressor	351
Asphalt Paver	554
Backhoe	6,406
Caisson Drilling Rig	640
Chain Saw	274
Chipper/Stump Grinder	274
Concrete Pump	640
Concrete Ready Mix Trucks	4,320
Concrete Saws	351
Concrete Truck	1,911
Curb/Gutter Paver	33
Distributing Tanker	77
Dozer	3,347
Dump Truck	8,507
Dump Truck (12 cy)	3,316
Excavator	6,390
Flatbed Truck	2,169
Fork Truck	48,331
Forklift	1,280
Generator	7,600
Grader	110
High Lift	14,406
Hydroseeder	99
Loader	9,300
Man Lift	40,000
Man Lift (Fascia Construction)	320
Material Deliveries	1,120
Off-Road Truck	99
Other General Equipment	3,640
Pickup Truck	12,985
Pumps	2,011
Roller	1,160
Rubber Tired Loader	351
Scraper	439
Skid Steer Loader	309
Slip Form Paver	351
Surfacing Equipment (Grooving)	520
Survey Crew Trucks	183
Tool Truck	11,291
Tractor Trailer- Material Delivery	14,634
Tractor Trailer- Steel Deliveries	1,812
Tractor Trailers Temp Fac.	78
Tractors/Loader/Backhoe	380
Trencher	1,702
Trowel Machine	1,440
Vibratory Compactor	67
Water Truck	11,520

Proposed Project - Phase 2A (2027-2030)

Equipment	Hours of Operation
40 Ton crane	109
90 Ton Crane	1,013
Air Compressor	144
Asphalt Paver	54
Backhoe	6,891
Caisson Drilling Rig	20
Chain Saw	132
Chipper/Stump Grinder	3,012
Concrete Pump	1,013
Concrete Ready Mix Trucks	4,162
Concrete Saws	144
Concrete Truck	922
Curb/Gutter Paver	2
Distributing Tanker	92
Dozer	1,749
Dump Truck	381
Dump Truck (12 cy)	1,364
Excavator	1,529
Flatbed Truck	903
Fork Truck	64,198
Generator	4,820
Grader	48
High Lift	5,924
Hydroseeder	44
Loader	467
Man Lift	64,680
Man Lift (Fascia Construction)	360
Material Deliveries	436
Off-Road Truck	64
Other General Equipment	5,960
Pickup Truck	3,826
Pumps	40
Roller	846
Rubber Tired Loader	144
Scraper	180
Skid Steer Loader	97
Slip Form Paver	354
Surfacing Equipment (Grooving)	214
Survey Crew Trucks	473
Tool Truck	20,514
Tractor Trailer- Material Delivery	23,871
Tractor Trailer- Steel Deliveries	1,586
Tractor Trailers Temp Fac.	501
Tractors/Loader/Backhoe	98
Trowel Machine	302
Vibratory Compactor	4
Water Truck	8,640

Proposed Project - Phase 2B (2031-2035)

Equipment	Hours of Operation
90 Ton Crane	2,668
Air Compressor	207
Asphalt Paver	78
Backhoe	2,668
Chain Saw	158
Chipper/Stump Grinder	158
Concrete Pump	100
Concrete Ready Mix Trucks	500
Concrete Saws	207
Concrete Truck	1,071
Distributing Tanker	166
Dozer	1,602
Dump Truck	8,912
Dump Truck (12 cy)	1,955
Excavator	4,972
Flatbed Truck	1,279
Fork Truck	28,335
Generator	6,700
Grader	64
High Lift	7,668
Hydroseeder	57
Loader	58
Man Lift	25,000
Man Lift (Fascia Construction)	200
Material Deliveries	500
Off-Road Truck	57
Other General Equipment	2,158
Pickup Truck	9,356
Pumps	53
Roller	659
Rubber Tired Loader	207
Scraper	259
Skid Steer Loader	131
Slip Form Paver	207
Surfacing Equipment (Grooving)	306
Survey Crew Trucks	83
Tool Truck	6,185
Tractor Trailer- Material Delivery	6,883
Tractor Trailer- Steel Deliveries	333
Tractor Trailers Temp Fac.	33
Tractors/Loader/Backhoe	8,519
Trowel Machine	100
Water Truck	2,880

Table C-47: Hours of Construction – Alternative 4

Alt 4 - Phase 1A (2021-2024)

Equipment	Hours of Operation
40 Ton Crane	2,921
90 Ton Crane	15,010
Air Compressor	1,166
Asphalt Paver	1,180
Backhoe	14,651
Caisson Drilling Rig	1,125
Chain Saw	964
Chipper/Stump Grinder	964
Concrete Pump	1,238
Concrete Ready Mix Trucks	8,230
Concrete Saws	1,166
Concrete Truck	9,259
Curb/Gutter Paver	1,090
Distributing Tanker	400
Dozer	11,712
Dump Truck	17,384
Dump Truck (12 cy)	11,014
Excavator	12,788
Flatbed Truck	7,204
Fork Truck	118,873
Forklift	2,250
Generator	14,188
Grader	388
High Lift	34,495
Hydroseeder	349
Loader	5,699
Man Lift	99,940
Man Lift (Fascia Construction)	932
Material Deliveries	2,542
Off-Road Truck	349
Other General Equipment	15,931
Pickup Truck	39,804
Pumps	3,696
Roller	4,589
Rubber Tired Loader	1,166
Scraper	1,458
Skid Steer Loader	2,616
Slip Form Paver	1,166
Surfacing Equipment (Grooving)	1,726
Survey Crew Trucks	427
Tool Truck	27,301
Tractor Trailer- Material Delivery	33,691
Tractor Trailer- Steel Deliveries	3,579
Tractor Trailers Temp Fac.	178
Tractors/Loader/Backhoe	13,903
Trencher	2,993
Trowel Machine	2,644
Vibratory Compactor	2,181
Water Truck	25,928

Alt 4 - Phase 1B (2024-2026)

Equipment	Hours of Operation
40 Ton crane	109
90 Ton Crane	4,001
Air Compressor	212
Asphalt Paver	80
Backhoe	4,171
Caisson Drilling Rig	20
Chain Saw	178
Chipper/Stump Grinder	3,058
Concrete Pump	150
Concrete Ready Mix Trucks	892
Concrete Saws	212
Concrete Truck	1,305
Curb/Gutter Paver	33
Distributing Tanker	84
Dozer	2,076
Dump Truck	7,924
Dump Truck (12 cy)	2,005
Excavator	4,552
Flatbed Truck	1,323
Fork Truck	42,550
Generator	7,350
Grader	67
High Lift	11,679
Hydroseeder	60
Loader	7,761
Man Lift	37,500
Man Lift (Fascia Construction)	300
Material Deliveries	892
Off-Road Truck	80
Other General Equipment	2,433
Pickup Truck	9,176
Pumps	55
Roller	1,091
Rubber Tired Loader	212
Scraper	265
Skid Steer Loader	210
Slip Form Paver	421
Surfacing Equipment (Grooving)	314
Survey Crew Trucks	408
Tool Truck	9,278
Tractor Trailer- Material Delivery	11,634
Tractor Trailer- Steel Deliveries	499
Tractor Trailers Temp Fac.	475
Tractors/Loader/Backhoe	285
Trowel Machine	150
Vibratory Compactor	67
Water Truck	8,076

2.0 Dispersion Analysis

2.1 Receptors

Based on land use information, receptors were located in areas within close proximity to SDIA and where the general public could have unrestricted access for one to several hours or longer. These include, but are not limited to, the school and residential areas of Liberty Station to the west and northwest; Spanish Landing Park and the recreation area along the Navy Boat Channel to the south and west, respectively; and the military installations (U.S. Marine Corps Recruitment Depot [MCRD] San Diego and U.S. Coast Guard [USCG]) to the north and southeast, respectively. Other model receptors were placed along the SDIA property boundary approximately 1,000 feet apart as a means of the identifying areas of highest pollutant concentrations at which the public has access. A total of 67 receptors were included in the analysis. Receptors were placed at a height of 1.8 meters (typical breathing height) above ground level. **Table C-48** provides a listing of the receptor locations.

Table C-48 Receptor Descriptions

Receptor ID	Description
1-40	Boundary Receptor
41	Carbrillo Elementary School
42	Point Loma Community Park
43	Dana Middle School
44	The Loma Club
45	Rock Academy
46	NTC Park3
47	NTC Park1
48	NTC Park2
49	Boat Ramp/Dock
50	Point Loma High
51	Loma Portal Elementary School
52	Dewey Elementary
53	MCRD San Diego
54	St Charles Parish
55	IHigh Virtual Academy
56	USCG Station
57	Harbor Island Park
58	Spanish Landing Park (West)
59	Spanish Landing Park (East-1)
60	Spanish Landing Park (East-2)
61	Waterfront Park (North)
62	Waterfront Park (South)
63	San Diego School of International Studies
64	Balboa Park (North)
65	San Diego Zoo
66	Old Town Academy
67	Balboa Park (South)

Source : KB Environmental Sciences, Inc. 2019.

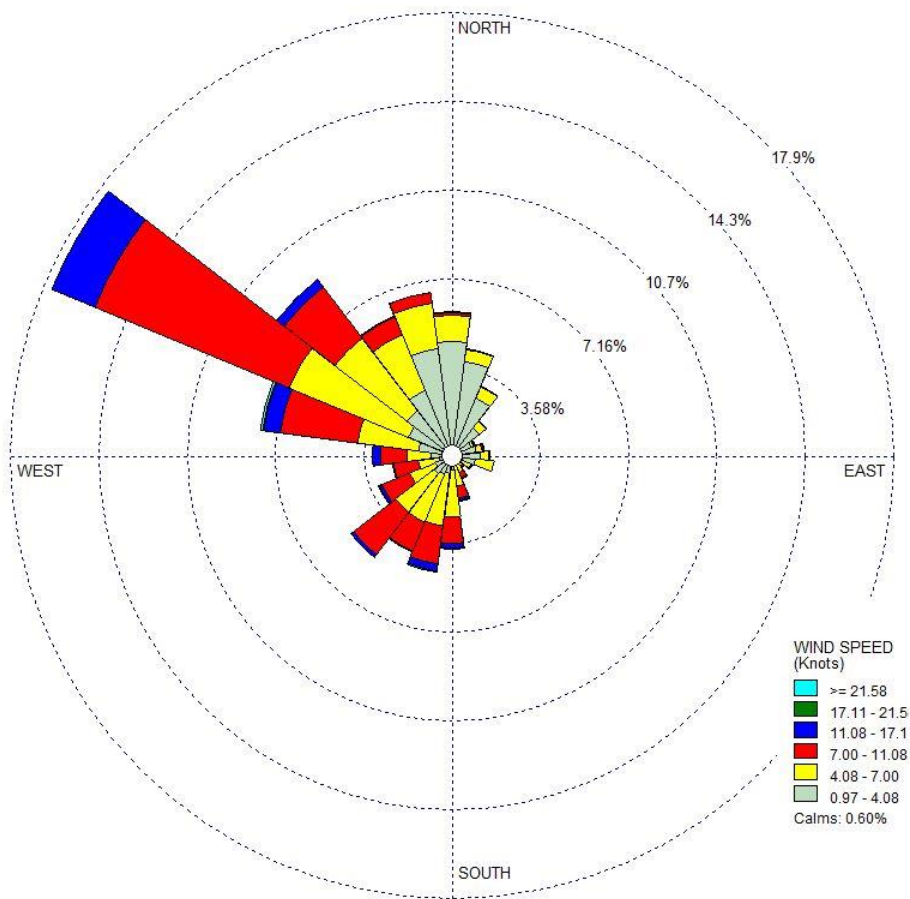
2.2 Meteorological Data

Meteorological data (i.e., wind speed, wind direction, temperature, etc.) were used in support of the air dispersion analysis. These data, obtained from the National Climatic Data Center (NCDC), were collected at weather stations located at SDIA (surface data) and Miramar, CA (upper air data). Five years of the most recent data available (2014 through 2018) were obtained and processed using U.S. EPA's AERMET Version 18081. AERMINUTE Version 15272 was used to process 1-minute wind data collected by the automatic surface observing system (ASOS) into hourly averages of wind direction and wind speed. A minimum wind speed threshold of 0.5 meters per second (m/s) was used. Land use parameters were extracted seasonally and for twelve 30-degree wind direction sectors using AERSURFACE Version 13016.

To determine which of the five years of meteorological data results in the highest predicted concentrations of air pollutants around San Diego Airport, the existing/baseline (2018) conditions at SDIA were analyzed. Because nitrogen oxides (NO_x) are the most indicative of airport activities, particularly as related to aircraft operations at which NO_x emissions are highest of the criteria pollutants from aircraft, it was selected as the assessment pollutant. Using AEDT2d, the 2018 airport operational data (including aircraft, ground support equipment, and stationary sources) were combined with the NCDC meteorological data. Five separate AEDT2d analyses were made; one for each year from 2014 to 2018. Both short-term (one hour) and long-term (annual) conditions were analyzed. Based on this analysis, the year 2016 meteorological data caused the highest one-hour NO_x concentrations. Therefore, the 2016 meteorological data represent worst-case conditions and were used in support of the atmospheric dispersion analysis for existing and future year conditions at the Airport under the proposed project, No Project Alternative, and Alternative 4.

A wind rose for the year 2016 is provided as **Figure C-3** showing a strong dominance of winds from the west-northwest.

Figure C-3 San Diego Airport Wind Rose (2016)



2.3 NO₂ Analysis

A three-tiered modeling approach based on the U.S. EPA modeling guidance document (Tyler Fox, March 1, 2011; Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO₂ National Ambient Air Quality Standard), is recommended for modeling NO₂ concentrations. These approaches are:

- Tier 1: assumes NO_x emissions are fully converted to NO₂;
- Tier 2: utilizes the Ambient Ratio Method (ARM) or ARM2; and
- Tier 3: uses a more detailed modeling approach such as Plume Volume Molar Ratio Method (PVMRM) or the Ozone Limited Method (OLM) to further refine NO₂ predicted values.

For this analysis, the OLM Tier 3 modeling approach was used to predict NO₂ concentrations. Hourly O₃ data used for the OLM was obtained from an air quality monitor in Chula Vista (the closest air monitor to SDIA that is currently active)(06-073-0001).

2.3.1 Urban Land Use

The average population density per square kilometer (km) is 3,091 within a 3km radius around SDIA, which is greater than the 750 people/km² threshold.⁸ Thus, urban dispersion coefficients were used based on the population density procedure.

2.4 Background Concentrations

The dispersion modeling performed for the air quality analysis does not represent all pollutant sources in proximity to the Airport that contribute to total pollutant levels. Therefore, background concentrations were developed to reflect the emissions from nearby sources. When background concentrations are added to the airport dispersion modeling results, the results represent total pollutant concentrations at each receptor. Measured concentrations during the past three years (i.e., 2014 – 2016) from nearby air quality monitors were used to represent background concentrations.

Table C-49 presents the background concentrations.

⁸ 40 CFR Part 51, [EPA-HQ-OAR-2015-0310; FRL-9956-23-OAR], Revisions to the Guideline on Air Quality Models: Enhancements to the AERMOD Dispersion Modeling System and Incorporation of Approaches to Address Ozone and Fine Particulate Matter. Available: https://www3.epa.gov/ttn/scram/appendix_w/2016/AppendixW_2017.pdf

Table C-49 Background Concentrations ($\mu\text{g}/\text{m}^3$)

Pollutant	Averaging Time	Applicable to the CAAQS		Applicable to the NAAQS		Location
		Standard	Measured Concentration	Standard	Measured Concentration	
CO	1-hour	23,000	2,865	40,000	2,827	Beardsley Street
	8-hour	10,000	2,101	10,000	1,948	Beardsley Street
NO ₂	1-hour	339	131.7	189	107.8	Beardsley Street
	Annual	57	24.2	100	24.2	Beardsley Street
SO ₂	1-hour	655	3.7	196	2.6	Lloyd Smith Drive
	3-hour	--	--	1,300	1.7	Lloyd Smith Drive
	24-hour	105	1.2	--	--	Lloyd Smith Drive
PM ₁₀	24-hour	--	--	150	42	Beardsley Street
	Annual	12	23	--	--	Beardsley Street
PM _{2.5}	24-hour	50	35	35	22	Beardsley Street
	Annual	20	9.7	12	9.7	Beardsley Street

Notes: NAAQS = National Ambient Air Quality Standard.

^a Based on recent three-year average of measured concentrations.

Source : U.S. EPA, 2018 <https://www.epa.gov/outdoor-air-quality-data>.

Notably, the majority of the background concentrations were obtained from an air monitoring station that was located on Beardsley Street. This station was located 2.5 miles from SDIA. In 2016, the San Diego County Air Pollution Control District (SDAPCD) discontinued monitoring at this location. To be conservative and use background concentrations more representative of those in the vicinity of SDIA, measured values from the Beardsley Street monitor were used in the analysis. It is important to note that based on historical data the measured concentrations of pollutants at this station trended downward. As such, use of the data results in conservative results.

3.0 Greenhouse Gases

This section of Appendix R-C presents the overall data, assumptions, and methodology for preparing the greenhouse gas (GHG) emissions inventory in support of the GHG impacts analysis for the SDIA ADP EIR. As was prepared for the criteria air pollutant inventory, the GHG inventory was prepared for the existing/baseline year (2018) and future years (2024, 2026, 2030, and 2035) for Alternative 1 (No Project), the proposed project, and Alternative 4 using the best available data at the time of the analysis. Emissions were also calculated for the year 2050 as a long-term analysis year that coincides with the planning horizon year in the *San Diego Forward: The Regional Plan / 2015-2050*. The year 2050 emissions inventory is subject to additional uncertainty as compared to the less distant future analyses due to the influences of technological advancements in transportation, as well as the influence of evolving political and economic climates.

The GHGs inventoried were carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). As is customary for GHG emissions inventories, the results are reported in units of metric tons (MT) of carbon dioxide equivalents (CO₂e), by source, and on an annual basis. The GHG emission results were converted to CO₂e values using the Global Warming Potential (GWP) values of 1 for CO₂, 28 for CH₄, and 265 for N₂O, based on a 100-year period.⁹ GWP values are relative measures of how much heat a GHG traps in the atmosphere when compared to carbon dioxide (e.g., CH₄ is 28 times as potent a GHG than CO₂). For this purpose, estimates of CH₄ and N₂O emissions are multiplied by their respective GWP values (28 for CH₄ and 265 for N₂O) to determine the CO₂e.

3.1 Aircraft

The GHG emissions from aircraft activity is directly attributable to the level of fuel consumption by the aircraft. Estimates of fuel consumption for the existing/baseline condition (2018) and the proposed project and Stinger First Alternative for future build years (2024, 2026, 2030, 2035, and 2050) were obtained from the AEDT output that was prepared for the air quality analysis. With the exception of ground-based delay and taxi times, AEDT default time-in-mode were used to calculate fuel estimated used in the GHG analysis.

For the purpose of calculating aircraft related-GHG emissions, the AEDT fuel usage was segregated by aircraft powered by Jet A fuel (i.e., aircraft with jet or turboprop engines) and those that are powered by aviation gasoline (i.e., piston aircraft).

GHG emissions were calculated using the appropriate emission factors from the U.S. EPA's GHG Emission Factors Hub (as of March 2018).¹⁰ **Table C-50** presents the GHG emission factors used to prepare the GHG emission estimates.

Table C-50 Aircraft Fuel GHG Emission Factors

Fuel	CO ₂	N ₂ O	CH ₄	Units
Jet A	21.5	0.0007	0.00 ¹	lb/gallon
AvGas	18.3	0.0002	0.02	lb/gallon

Source: U.S. EPA, Center for Corporate Climate Leadership GHG Emission Factors Hub, March 2018. For additional information see the FAA's Air Quality Handbook, Version 3.

3.2 Stationary Sources

Similar to the criteria air pollutant inventory, stationary sources GHG emissions were based on existing and proposed annual fuel usage and/or throughputs. GHGs emission factors were derived from U.S. EPA's GHG Emission Factors Hub.

⁹ Intergovernmental Panel on Climate Change (IPCC), Fifth Assessment Report, 2014.

¹⁰ U.S. EPA, GHG Emission Factors Hub (March 2018), <https://www.epa.gov/climateleadership/center-corporate-climate-leadership-ghg-emission-factors-hub>.

3.3 Motor Vehicles

GHGs for motor vehicles were calculated using the same methodology and data used to develop the criteria pollutant emissions inventory. Vehicle miles traveled (VMT) were calculated for airport-related motor vehicles operating on the internal roadway network, terminal building curbsides, and off-airport roadways. Vehicle parameters (e.g., vehicle type, speed, fuel type, etc.) were captured within the EMFAC2017 model. The vehicle and fuel mix data are provided in Tables C-15 and C-16. Emission factors are provided in Tables C-17 and C-18, and daily traffic volumes are presented in Tables C-19 through C-24 of this Appendix.

The following equation was used to obtain annual GHG emissions for motor vehicles:

$$\text{Motor Vehicle Emissions (metric tons of CO}_2\text{e/year)} = \text{Emission Factor (g/mile)} \times \text{vehicle miles travelled per day} \times (365 \text{ days/year}) \times (1 \text{ pound}/453.59 \text{ grams}) \times (1 \text{ ton}/2,000 \text{ pounds}) \times (1 \text{ metric ton}/1.102 \text{ ton}) \times \text{global warming potential (GWP)}$$

3.4 Other Sources

As for the criteria pollutants, emissions of GHGs were prepared using CAPCOA's CalEEMod. For GHGs, CalEEMod provides estimate of emissions due to electricity usage, water usage and solid waste disposal.

For the existing condition and Alternative 1 (No Project), the total square footage of all of the buildings at the airport were used for input to CalEEMod. These are:

- Administrative Building/ Former Commuter Terminal – 132,000 square feet (sf)
- Terminal 1 – 336,000 sf
- Terminal 2 (East) – 350,000 sf
- Terminal 2 (West) – 889,000 sf

The proposed project was also modeled using CalEEMod and were based on the information and square footages provided in Section 1.5.3 of this Appendix.

The amount of water used and wastewater generated by the project has GHG emissions associated with it. These emissions are a result of the energy used to supply, distribute, and treat the water and wastewater. CalEEMod was used to quantify the energy and associated GHG emissions attributable to water and wastewater use.

Municipal solid waste is the amount of material that is disposed of by land filling, recycling, or composting. CalEEMod was used to estimate the GHG emissions associated with waste disposal. The model uses annual waste disposal rates from the California Department of Resources Recycling and Recovery (CalRecycle) data for individual land uses.

3.5 Construction

GHG emissions were estimated for construction activities categorized as off-road (e.g., graders, excavators, paving equipment) and for on-road vehicles associated with construction (e.g., laborer/worker) trips commuting to and from the worksite and haul trucks. The same methodology

and data used to develop the criteria pollutant emission inventory was used for the GHG emissions inventory. Construction equipment data including equipment type, horsepower and load factors are presented in Table C-26 of the Air Quality section of this Appendix.

GHG emissions including CO₂, CH₄, and N₂O were evaluated for the construction period of 2021 through 2035. Emissions factors for on-road vehicles and off-road construction equipment were developed using CARB's EMFAC2017 and OFFROAD2017, respectively.

EMFAC2017 emission factors associated with commuter vehicles, hauling, delivery and pickup trucks for the construction period are presented in Table C-25 of this Appendix. OFFROAD2017 emission factors for off-road construction equipment are presented in Table C-27 through C-41 of the Air Quality section of this Appendix.

The following equation was used to obtain annual GHG emission for off-road construction equipment:

$$\text{Construction Equipment Emissions (metric tons of CO}_2\text{e/year)} = \text{Emission Factor (grams/hp-hour)} \times \text{Horsepower (hp)} \times \text{hours per year} \times \text{Load Factor} \times (1 \text{ pound}/453.59 \text{ grams}) \times (1 \text{ ton}/2,000 \text{ pounds}) \times (1 \text{ metric ton}/1.102 \text{ ton}) \times \text{global warming potential (GWP)}$$

R-C2 – Carbon Monoxide Hot Spots Analysis Data

Maximum CO Concentrations at Roadway Intersections

Existing Conditions (2018)

ID	Intersection	Traffic CO Conc. (ppm)		Max. Conc. (ppm)		Significant?	
		1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
7	San Diego Ave & Washington	0.40	0.28	2.00	1.68	No	No
10	Kettner Blvd & Sassafras St	0.30	0.21	1.90	1.61	No	No
16	Laurel Dr & Kettner Blvd	0.40	0.28	2.00	1.68	No	No
20	Hawthorn St & Kettner Blvd	0.30	0.21	1.90	1.61	No	No
21	Hawthorn St & India St	0.30	0.21	1.90	1.61	No	No
22	Hawthorn St & Columbia St	0.30	0.21	1.90	1.61	No	No
23	Hawthorn St & State St	0.40	0.28	2.00	1.68	No	No
24	I-5 NB Off-Ramp/Brandt & Hawthorn	0.10	0.07	1.70	1.47	No	No
27	Grape St & Kettner Blvd	0.30	0.21	1.90	1.61	No	No
28	Grape St & India St	0.40	0.28	2.00	1.68	No	No
29	Grape St & Columbia St	0.40	0.28	2.00	1.68	No	No
30	Grape St & State St	0.30	0.21	1.90	1.61	No	No

Notes:

Traffic CO concentration from CAL3QHC model output.

Maximum CO concentration is traffic CO plus background concentration.

2050 Plus Project

ID	Intersection	Traffic CO Conc. (ppm)		Max. Conc. (ppm)		Significant?	
		1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
7	San Diego Ave & Washington	0.20	0.14	1.80	1.54	No	No
10	Kettner Blvd & Sassafras St	0.20	0.14	1.80	1.54	No	No
16	Laurel Dr & Kettner Blvd	0.40	0.28	2.00	1.68	No	No
20	Hawthorn St & Kettner Blvd	0.20	0.14	1.80	1.54	No	No
21	Hawthorn St & India St	0.20	0.14	1.80	1.54	No	No
22	Hawthorn St & Columbia St	0.30	0.21	1.90	1.61	No	No
23	Hawthorn St & State St	0.30	0.21	1.90	1.61	No	No
24	I-5 NB Off-Ramp/Brandt & Hawthorn	0.00	0.00	1.60	1.40	No	No
27	Grape St & Kettner Blvd	0.30	0.21	1.90	1.61	No	No
28	Grape St & India St	0.20	0.14	1.80	1.54	No	No
29	Grape St & Columbia St	0.30	0.21	1.90	1.61	No	No
30	Grape St & State St	0.20	0.14	1.80	1.54	No	No

Notes:

Traffic CO concentration from CAL3QHC model output.

Maximum CO concentration is traffic CO plus background concentration.

Background (1-hour) 1.60 ppm 1,833 µg/m³
 Background (8-hour) 1.40 ppm 1,604 µg/m³
 Persistence Factor 0.7 (Urban)

$$C_{ppm} = C_{\mu g/m^3} \times 0.02445/MW$$

$$CO\ MW: \quad 28.01\ g/mol$$

Ambient Air Quality Standards

Standard	CO Conc. (ppm)	
	1-Hour	8-Hour
CAAQS	20	9
NAAQS	35	9

Intersection 7 (San Diego Ave & Washington)

Existing Conditions (2018)

PM Peak Hour						No. Links: 13		Freeflow Traffic Input Data			Queue Traffic Data						
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate		
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane		
N	North-Freeflow Approach	N-FA		301	35	0	15	1.321									
N	North-Through Traffic Queue	N-TQ	NBT	152	3				0	9	84	55.9	2	10.666	1,695		
N	North-Freeflow Departure	N-FD		862	35	0	15	1.321									
N	North-Left Turn Queue	N-LQ	NBL	106	3				0	3	84	55.9	2	10.666	1,777		
N	North-Right Turn Queue	N-RQ	NBR	43	3				0	3	84	55.9	2	10.666	1,731		
S	South-Freeflow Approach	S-FA		0	35	0	6	1.321									
S	South-Through Traffic Queue	S-TQ	SBT	0	3				0	0	0	0	2	10.666	0		
S	South-Freeflow Departure	S-FD		0	35	0	6	1.321									
S	South-Left Turn Queue	S-LQ	SBL	0	3				0	0	0	0	2	10.666	0		
S	South-Right Turn Queue	S-RQ	SBR	0	3				0	0	0	0	2	10.666	0		
W	West-Freeflow Approach	W-FA		897	35	0	12	1.321									
W	West-Through Traffic Queue	W-TQ	WBT	449	3				0	6	84	37.9	2	10.666	1,770		
W	West-Freeflow Departure	W-FD		555	35	0	12	1.321									
W	West-Left Turn Queue	W-LQ	WBL	0	3				0	0	0	0	2	10.666	0		
W	West-Right Turn Queue	W-RQ	WBR	448	3				0	3	84	37.9	2	10.666	1,583		
E	East-Freeflow Approach	E-FA		1,507	35	0	12	1.321									
E	East-Through Traffic Queue	E-TQ	EBT	1,245	3				0	6	84	56	2	10.666	1,770		
E	East-Freeflow Departure	E-FD		1,288	35	0	12	1.321									
E	East-Left Turn Queue	E-LQ	EBL	262	3				0	6	84	70.9	2	10.666	1,721		
E	East-Right Turn Queue	E-RQ	EBR	0	3				0	0	0	0	2	10.666	0		
Total				2,705													

# Lanes	Green time length s
3	
3	28.1
3	
1	28.1
1	28.1
0	
0	0
0	
0	0
0	0
2	
2	46.1
2	
0	0
1	46.1
2	
2	28
2	
2	13.1
0	0

2050 Plus Project

PM Peak Hour						Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate		
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane		
N	North-Freeflow Approach	N-FA		794	35	0	15	0.511								3	
N	North-Through Traffic Queue	N-TQ	NBT	319	3				0	9	84	58	2	6.134	1,695	3	26
N	North-Freeflow Departure	N-FD		1,907	35	0	15	0.511								3	
N	North-Left Turn Queue	N-LQ	NBL	67	3				0	3	84	58	2	6.134	1,791	1	26
N	North-Right Turn Queue	N-RQ	NBR	408	3				0	3	84	58	2	6.134	1,657	1	26
S	South-Freeflow Approach	S-FA		0	35	0	6	0.511								0	
S	South-Through Traffic Queue	S-TQ	SBT	0	3				0	0	0	-42.6	2	6.134	0	0	42.6
S	South-Freeflow Departure	S-FD		0	35	0	6	0.511								0	
S	South-Left Turn Queue	S-LQ	SBL	0	3				0	0	0	-42.6	2	6.134	0	0	42.6
S	South-Right Turn Queue	S-RQ	SBR	0	3				0	0	0	-42.6	2	6.134	0	0	42.6
W	West-Freeflow Approach	W-FA		2,038	35	0	12	0.511								2	
W	West-Through Traffic Queue	W-TQ	WBT	625	3				0	6	84	35.8	2	6.134	1,770	2	48.2
W	West-Freeflow Departure	W-FD		692	35	0	12	0.511								2	
W	West-Left Turn Queue	W-LQ	WBL	0	3				0	0	84	59.4	2	6.134	0	0	24.6
W	West-Right Turn Queue	W-RQ	WBR	1,413	3				0	3	84	35.8	2	6.134	1,583	1	48.2
E	East-Freeflow Approach	E-FA		2,284	35	0	12	0.511								2	
E	East-Through Traffic Queue	E-TQ	EBT	2,109	3				0	6	84	51	2	6.134	1,770	2	33
E	East-Freeflow Departure	E-FD		2,517	35	0	12	0.511								2	
E	East-Left Turn Queue	E-LQ	EBL	175	3				0	6	84	73.4	2	6.134	1,721	2	10.6
E	East-Right Turn Queue	E-RQ	EBR	0	3				0	0	84	51	2	6.134	0	0	33

Data in black obtained from traffic reports
Data in blue are calculated values

Mixing zone width for freeflow traffic = road width + 6 meters
Mixing zone width for queue traffic = road width

Lane width 3 m

Direction Legend
N = Northbound
S = Southbound
W = Westbound
E = Eastbound

Intersection 10 (Kettner Blvd & Sassafra

Existing Conditions (2018)

PM Peak Hour			No. Links: 13			Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate		
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane		
N	North-Freeflow Approach	N-FA		0	35	0	6	1.321								0	
N	North-Through Traffic Queue	N-TQ	NBT	0	3				0	0	0	0	2	10.666	0	0	
N	North-Freeflow Departure	N-FD		0	35	0	6	1.321								0	
N	North-Left Turn Queue	N-LQ	NBL	0	3				0	0	0	0	2	10.666	0	0	
N	North-Right Turn Queue	N-RQ	NBR	0	3				0	0	0	0	2	10.666	0	0	
S	South-Freeflow Approach	S-FA		2,116	35	0	15	1.321								3	
S	South-Through Traffic Queue	S-TQ	SBT	1,535	3				0	9	87.6	27.6	2	10.666	1,695	60	
S	South-Freeflow Departure	S-FD		1,806	35	0	15	1.321								3	
S	South-Left Turn Queue	S-LQ	SBL	240	3				0	3	87.6	27.6	2	10.666	1,774	60	
S	South-Right Turn Queue	S-RQ	SBR	341	3				0	3	87.6	27.6	2	10.666	1,701	60	
W	West-Freeflow Approach	W-FA		211	35	0	12	1.321								2	
W	West-Through Traffic Queue	W-TQ	WBT	157	3				0	6	87.6	61.4	2	10.666	1,610	26.2	
W	West-Freeflow Departure	W-FD		498	35	0	12	1.321								2	
W	West-Left Turn Queue	W-LQ	WBL	54	3				0	3	87.6	61.4	2	10.666	690	26.2	
W	West-Right Turn Queue	W-RQ	WBR	0	3				0	0	0	-26.2	2	10.666	0	26.2	
E	East-Freeflow Approach	E-FA		445	35	0	9	1.321								1	
E	East-Through Traffic Queue	E-TQ	EBT	228	3				0	3	87.6	61.4	2	10.666	1,863	26.2	
E	East-Freeflow Departure	E-FD		468	35	0	9	1.321								1	
E	East-Left Turn Queue	E-LQ	EBL	0	3				0	0	0	0	2	10.666	0	0	
E	East-Right Turn Queue	E-RQ	EBR	217	3				0	3	87.6	61.4	2	10.666	1,583	26.2	
Total				2,772													

2050 Plus Project

PM Peak Hour						Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate		
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane		
N	North-Freeflow Approach	N-FA		0	35	0	6	0.511								0	
N	North-Through Traffic Queue	N-TQ	NBT	0	3				0	0	0	0	2	6.134	0	0	
N	North-Freeflow Departure	N-FD		0	35	0	6	0.511								0	
N	North-Left Turn Queue	N-LQ	NBL	0	3				0	0	0	0	2	6.134	0	0	
N	North-Right Turn Queue	N-RQ	NBR	0	3				0	0	0	0	2	6.134	0	0	
S	South-Freeflow Approach	S-FA		3,501	35	0	15	0.511								3	
S	South-Through Traffic Queue	S-TQ	SBT	2,688	3				0	9	82.7	15	2	6.134	1,695	67.7	
S	South-Freeflow Departure	S-FD		3,209	35	0	15	0.511								3	
S	South-Left Turn Queue	S-LQ	SBL	298	3				0	3	82.7	15	2	6.134	1,793	67.7	
S	South-Right Turn Queue	S-RQ	SBR	515	3				0	3	82.7	15	2	6.134	1,829	67.7	
W	West-Freeflow Approach	W-FA		443	35	0	12	0.511								2	
W	West-Through Traffic Queue	W-TQ	WBT	323	3				0	6	82.7	60.4	2	6.134	1,610	22.3	
W	West-Freeflow Departure	W-FD		838	35	0	12	0.511								2	
W	West-Left Turn Queue	W-LQ	WBL	120	3				0	3	82.7	60.4	2	6.134	1,349	22.3	
W	West-Right Turn Queue	W-RQ	WBR	0	3				0	0	0	0	2	6.134	0	0	
E	East-Freeflow Approach	E-FA		789	35	0	9	0.511								1	
E	East-Through Traffic Queue	E-TQ	EBT	388	3				0	3	82.7	60.4	2	6.134	1,863	22.3	
E	East-Freeflow Departure	E-FD		686	35	0	9	0.511								1	
E	East-Left Turn Queue	E-LQ	EBL	0	3				0	0	0	0	2	6.134	0	0	
E	East-Right Turn Queue	E-RQ	EBR	401	3				0	3	82.7	60.4	2	6.134	1,583	22.3	

Data in black obtained from traffic reports
Data in blue are calculated values

Mixing zone width for freeflow traffic = road width + 6 meters
Mixing zone width for queue traffic = road width

Lane width 3 m

Direction Legend
N = Northbound
S = Southbound
W = Westbound
E = Eastbound

Intersection 16 (Laurel Dr & Kettner Blvd)

Existing Conditions (2018)

PM Peak Hour			No. Links: 13			Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s			
Direction	Description	ID	Synchro Link	Volume	Speed mph	J	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate					
						m	m	g/v-mi										s	s	s
N	North-Freeflow Approach	N-FA		0	35	0	6	1.321									0			
N	North-Through Traffic Queue	N-TQ	NBT	0	3				0	0	0	0	2	10.666	0		0			
N	North-Freeflow Departure	N-FD		0	35	0	6	1.321												
N	North-Left Turn Queue	N-LQ	NBL	0	3				0	0	0	0	2	10.666	0		0			
N	North-Right Turn Queue	N-RQ	NBR	0	3				0	0	0	0	2	10.666	0		0			
S	South-Freeflow Approach	S-FA		1,366	35	0	15	1.321									3			
S	South-Through Traffic Queue	S-TQ	SBT	571	3				0	9	140	91.6	2	10.666	1,863		3	48.4		
S	South-Freeflow Departure	S-FD		710	35	0	15	1.321									3			
S	South-Left Turn Queue	S-LQ	SBL	329	3				0	0	140	91.6	2	10.666	1,774		0	48.4		
S	South-Right Turn Queue	S-RQ	SBR	466	3				0	3	140	91.6	2	10.666	1,583		1	48.4		
W	West-Freeflow Approach	W-FA		208	35	0	12	1.321									2			
W	West-Through Traffic Queue	W-TQ	WBT	165	3				0	6	140	89	2	10.666	1,770		2	51		
W	West-Freeflow Departure	W-FD		631	35	0	12	1.321									2			
W	West-Left Turn Queue	W-LQ	WBL	43	3				0	3	140	115.4	2	10.666	1,774		1	24.6		
W	West-Right Turn Queue	W-RQ	WBR	0	3				0	0	0	0	2	10.666	0		0	0		
E	East-Freeflow Approach	E-FA		1,257	35	0	12	1.321									2			
E	East-Through Traffic Queue	E-TQ	EBT	1,161	3				0	6	140	60.4	2	10.666	1,770		2	79.6		
E	East-Freeflow Departure	E-FD		1,490	35	0	12	1.321									2			
E	East-Left Turn Queue	E-LQ	EBL	0	3				0	0	0	0	2	10.666	0		0	0		
E	East-Right Turn Queue	E-RQ	EBR	96	3				0	0	140	60.4	2	10.666	1,815		0	79.6		
Total				2,831																

2050 Plus Project

0.511008526

PM Peak Hour						Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate		
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane		
N	North-Freeflow Approach	N-FA		0	35	0	6	0.511								0	
N	North-Through Traffic Queue	N-TQ	NBT	0	3				0	0	0	0	2	6.134	0	0	
N	North-Freeflow Departure	N-FD		0	35	0	6	0.511								0	
N	North-Left Turn Queue	N-LQ	NBL	0	3				0	0	0	0	2	6.134	0	0	
N	North-Right Turn Queue	N-RQ	NBR	0	3				0	0	0	0	2	6.134	0	0	
S	South-Freeflow Approach	S-FA		3,081	35	0	15	0.511								3	
S	South-Through Traffic Queue	S-TQ	SBT	1,561	3				0	9	199.5	156.9	2	6.134	1,863	3	
S	South-Freeflow Departure	S-FD		1,883	35	0	15	0.511								3	
S	South-Left Turn Queue	S-LQ	SBL	519	3				0	0	199.5	156.9	2	6.134	1,793	0	
S	South-Right Turn Queue	S-RQ	SBR	1,001	3				0	3	199.5	156.9	2	6.134	1,583	1	
W	West-Freeflow Approach	W-FA		330	35	0	12	0.511								2	
W	West-Through Traffic Queue	W-TQ	WBT	239	3				0	6	199.5	121.5	2	6.134	1,770	2	
W	West-Freeflow Departure	W-FD		1,240	35	0	12	0.511								2	
W	West-Left Turn Queue	W-LQ	WBL	91	3				0	3	199.5	174.9	2	6.134	1,774	1	
W	West-Right Turn Queue	W-RQ	WBR	0	3				0	0	0	0	2	6.134	0	0	
E	East-Freeflow Approach	E-FA		2,064	35	0	12	0.511								2	
E	East-Through Traffic Queue	E-TQ	EBT	1,833	3				0	6	199.5	114.1	2	6.134	1,770	2	
E	East-Freeflow Departure	E-FD		2,352	35	0	12	0.511								2	
E	East-Left Turn Queue	E-LQ	EBL	0	3				0	0	0	0	2	6.134	0	0	
E	East-Right Turn Queue	E-RQ	EBR	231	3				0	0	199.5	114.1	2	6.134	1,802	0	

Data in black obtained from traffic reports
Data in blue are calculated values

Mixing zone width for freeflow traffic = road width + 6 meters
Mixing zone width for queue traffic = road width

Lane width 3 m

Direction Legend
N = Northbound
S = Southbound
W = Westbound
E = Eastbound

Intersection 20 (Hawthorn St & Kettner Blvd)

Existing Conditions (2018)

AM Peak Hour			No. Links: 8			Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate		
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane		
N	North-Freeflow Approach	N-FA		0	35	0	6	1.321								0	
N	North-Through Traffic Queue	N-TQ	NBT	0	3				0	0	0	0	2	10.666	0	0	
N	North-Freeflow Departure	N-FD		0	35	0	6	1.321								0	
N	North-Left Turn Queue	N-LQ	NBL	0	3				0	0	0	0	2	10.666	0	0	
N	North-Right Turn Queue	N-RQ	NBR	0	3				0	0	0	0	2	10.666	0	0	
S	South-Freeflow Approach	S-FA		204	35	0	12	1.321								2	
S	South-Through Traffic Queue	S-TQ	SBT	154	3				0	0	110	88.2	2	10.666	1,695	21.8	
S	South-Freeflow Departure	S-FD		416	35	0	15	1.321								3	
S	South-Left Turn Queue	S-LQ	SBL	0	3				0	0	0	0	2	10.666	0	0	
S	South-Right Turn Queue	S-RQ	SBR	50	3				0	0	110	88.2	2	10.666	1,456	21.8	
W	West-Freeflow Approach	W-FA		2,144	35	0	15	1.321								3	
W	West-Through Traffic Queue	W-TQ	WBT	1,882	3				0	0	110	31.9	2	10.666	1,695	78.1	
W	West-Freeflow Departure	W-FD		1,932	35	0	15	1.321								3	
W	West-Left Turn Queue	W-LQ	WBL	262	3				0	0	110	31.9	2	10.666	1,833	78.1	
W	West-Right Turn Queue	W-RQ	WBR	0	3				0	0	0	0	2	10.666	0	0	
E	East-Freeflow Approach	E-FA		0	35	0	6	1.321								0	
E	East-Through Traffic Queue	E-TQ	EBT	0	3				0	0	0	0	2	10.666	0	0	
E	East-Freeflow Departure	E-FD		0	35	0	6	1.321								0	
E	East-Left Turn Queue	E-LQ	EBL	0	3				0	0	0	0	2	10.666	0	0	
E	East-Right Turn Queue	E-RQ	EBR	0	3				0	0	0	0	2	10.666	0	0	
Total				2,348													

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AM Peak Hour						Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate		
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane		
N	North-Freeflow Approach	N-FA		0	35	0	6	0.511								0	
N	North-Through Traffic Queue	N-TQ	NBT	0	3				0	0	0	0	2	6.134	0	0	
N	North-Freeflow Departure	N-FD		0	35	0	6	0.511								0	
N	North-Left Turn Queue	N-LQ	NBL	0	3				0	0	0	0	2	6.134	0	0	
N	North-Right Turn Queue	N-RQ	NBR	0	3				0	0	0	0	2	6.134	0	0	
S	South-Freeflow Approach	S-FA		536	35	0	12	0.511								2	
S	South-Through Traffic Queue	S-TQ	SBT	430	3				0	0	110	91	2	6.134	1,695	19	
S	South-Freeflow Departure	S-FD		968	35	0	12	0.511								2	
S	South-Left Turn Queue	S-LQ	SBL	0	3				0	0	0	0	2	6.134	0	0	
S	South-Right Turn Queue	S-RQ	SBR	106	3				0	0	110	91	2	6.134	1,334	19	
W	West-Freeflow Approach	W-FA		3,799	35	0	15	0.511								3	
W	West-Through Traffic Queue	W-TQ	WBT	3,261	3				0	0	110	29.1	2	6.134	1,695	80.9	
W	West-Freeflow Departure	W-FD		3,367	35	0	15	0.511								3	
W	West-Left Turn Queue	W-LQ	WBL	538	3				0	0	110	29.1	2	6.134	1,842	80.9	
W	West-Right Turn Queue	W-RQ	WBR	0	3				0	0	0	0	2	6.134	0	0	
E	East-Freeflow Approach	E-FA		0	35	0	6	0.511								0	
E	East-Through Traffic Queue	E-TQ	EBT	0	3				0	0	0	0	2	6.134	0	0	
E	East-Freeflow Departure	E-FD		0	35	0	6	0.511								0	
E	East-Left Turn Queue	E-LQ	EBL	0	3				0	0	0	0	2	6.134	0	0	
E	East-Right Turn Queue	E-RQ	EBR	0	3				0	0	0	0	2	6.134	0	0	

Data in black obtained from traffic reports
Data in blue are calculated values

Mixing zone width for freeflow traffic = road width + 6 meters
Mixing zone width for queue traffic = road width

Lane width 3 m

Direction Legend
N = Northbound
S = Southbound
W = Westbound
E = Eastbound

Intersection 21 (Hawthorn St & India St)

Existing Conditions (2018)

AM Peak Hour			No. Links: 8			Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s	
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate			
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane			
N	North-Freeflow Approach	N-FA		157	35	0	12	1.321									2	
N	North-Through Traffic Queue	N-TQ	NBT	90	3				0	0	110	87.5	2	10.666	1,770		2	22.5
N	North-Freeflow Departure	N-FD		204	35	0	12	1.321									2	
N	North-Left Turn Queue	N-LQ	NBL	67	3				0	0	110	87.5	2	10.666	1,791		0	22.5
N	North-Right Turn Queue	N-RQ	NBR	0	3				0	0	0	0	2	10.666	0		0	0
S	South-Freeflow Approach	S-FA		0	35	0	6	1.321									0	
S	South-Through Traffic Queue	S-TQ	SBT	0	3				0	0	0	0	2	10.666	0		0	0
S	South-Freeflow Departure	S-FD		0	35	0	6	1.321									0	
S	South-Left Turn Queue	S-LQ	SBL	0	3				0	0	0	0	2	10.666	0		0	0
S	South-Right Turn Queue	S-RQ	SBR	0	3				0	0	0	0	2	10.666	0		0	0
W	West-Freeflow Approach	W-FA		2,164	35	0	15	1.321									3	
W	West-Through Traffic Queue	W-TQ	WBT	2,050	3				0	0	110	32.9	2	10.666	1,695		3	77.1
W	West-Freeflow Departure	W-FD		2,117	35	0	15	1.321									3	
W	West-Left Turn Queue	W-LQ	WBL	0	3				0	0	0	0	2	10.666	0		0	0
W	West-Right Turn Queue	W-RQ	WBR	114	3				0	0	110	32.9	2	10.666	1,801		0	77.1
E	East-Freeflow Approach	E-FA		0	35	0	6	1.321									0	
E	East-Through Traffic Queue	E-TQ	EBT	0	3				0	0	0	0	2	10.666	0		0	0
E	East-Freeflow Departure	E-FD		0	35	0	6	1.321									0	
E	East-Left Turn Queue	E-LQ	EBL	0	3				0	0	0	0	2	10.666	0		0	0
E	East-Right Turn Queue	E-RQ	EBR	0	3				0	0	0	0	2	10.666	0		0	0
Total				2,321														

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AM Peak Hour						Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s	
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate			
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane			
N	North-Freeflow Approach	N-FA		286	35	0	15	0.511									3	
N	North-Through Traffic Queue	N-TQ	NBT	179	3				0	0	110	91	2	6.134	1,770		3	19
N	North-Freeflow Departure	N-FD		409	35	0	15	0.511									3	
N	North-Left Turn Queue	N-LQ	NBL	107	3				0	0	110	91	2	6.134	1,784		0	19
N	North-Right Turn Queue	N-RQ	NBR	0	3				0	0	0	0	2	6.134	0		0	0
S	South-Freeflow Approach	S-FA		0	35	0	6	0.511									0	
S	South-Through Traffic Queue	S-TQ	SBT	0	3				0	0	0	0	2	6.134	0		0	0
S	South-Freeflow Departure	S-FD		0	35	0	6	0.511									0	
S	South-Left Turn Queue	S-LQ	SBL	0	3				0	0	0	0	2	6.134	0		0	0
S	South-Right Turn Queue	S-RQ	SBR	0	3				0	0	0	0	2	6.134	0		0	0
W	West-Freeflow Approach	W-FA		3,870	35	0	15	0.511									3	
W	West-Through Traffic Queue	W-TQ	WBT	3,640	3				0	0	110	29.4	2	6.134	1,695		3	80.6
W	West-Freeflow Departure	W-FD		3,747	35	0	15	0.511									3	
W	West-Left Turn Queue	W-LQ	WBL	0	3				0	0	0	0	2	6.134	0		0	0
W	West-Right Turn Queue	W-RQ	WBR	230	3				0	0	110	29.4	2	6.134	1,817		0	80.6
E	East-Freeflow Approach	E-FA		0	35	0	6	0.511									0	
E	East-Through Traffic Queue	E-TQ	EBT	0	3				0	0	0	0	2	6.134	0		0	0
E	East-Freeflow Departure	E-FD		0	35	0	6	0.511									0	
E	East-Left Turn Queue	E-LQ	EBL	0	3				0	0	0	0	2	6.134	0		0	0
E	East-Right Turn Queue	E-RQ	EBR	0	3				0	0	0	0	2	6.134	0		0	0

Data in black obtained from traffic reports
Data in blue are calculated values

Mixing zone width for freeflow traffic = road width + 6 meters
Mixing zone width for queue traffic = road width

Lane width 3 m

Direction Legend
N = Northbound
S = Southbound
W = Westbound
E = Eastbound

Intersection 22 (Hawthorn St & Columbia St)

Existing Conditions (2018)

AM Peak Hour			No. Links: 8			Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate		
						m	m	g/v-mi									
N	North-Freeflow Approach	N-FA		0	35	0	6	1.321								0	
N	North-Through Traffic Queue	N-TQ	NBT	0	3				0	0	0	0	2	10.666	0	0	
N	North-Freeflow Departure	N-FD		0	35	0	6	1.321								0	
N	North-Left Turn Queue	N-LQ	NBL	0	3				0	0	0	0	2	10.666	0	0	
N	North-Right Turn Queue	N-RQ	NBR	0	3				0	0	0	0	2	10.666	0	0	
S	South-Freeflow Approach	S-FA		247	35	0	12	1.321								2	
S	South-Through Traffic Queue	S-TQ	SBT	209	3				0	0	110	87.3	2	10.666	1,770	22.7	
S	South-Freeflow Departure	S-FD		508	35	0	12	1.321								2	
S	South-Left Turn Queue	S-LQ	SBL	0	3				0	0	0	0	2	10.666	0	0	
S	South-Right Turn Queue	S-RQ	SBR	38	3				0	0	110	87.3	2	10.666	1,468	22.7	
W	West-Freeflow Approach	W-FA		2,428	35	0	15	1.321								3	
W	West-Through Traffic Queue	W-TQ	WBT	2,129	3				0	0	110	32.9	2	10.666	1,695	77.1	
W	West-Freeflow Departure	W-FD		2,167	35	0	15	1.321								3	
W	West-Left Turn Queue	W-LQ	WBL	299	3				0	0	110	32.9	2	10.666	1,833	77.1	
W	West-Right Turn Queue	W-RQ	WBR	0	3				0	0	0	0	2	10.666	0	0	
E	East-Freeflow Approach	E-FA		0	35	0	6	1.321								0	
E	East-Through Traffic Queue	E-TQ	EBT	0	3				0	0	0	0	2	10.666	0	0	
E	East-Freeflow Departure	E-FD		0	35	0	6	1.321								0	
E	East-Left Turn Queue	E-LQ	EBL	0	3				0	0	0	0	2	10.666	0	0	
E	East-Right Turn Queue	E-RQ	EBR	0	3				0	0	0	0	2	10.666	0	0	
Total				2,675													

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AM Peak Hour						Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate		
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane		
N	North-Freeflow Approach	N-FA		0	35	0	6	0.511								0	
N	North-Through Traffic Queue	N-TQ	NBT	0	3				0	0	0	0	2	6.134	0	0	
N	North-Freeflow Departure	N-FD		0	35	0	6	0.511								0	
N	North-Left Turn Queue	N-LQ	NBL	0	3				0	0	0	0	2	6.134	0	0	
N	North-Right Turn Queue	N-RQ	NBR	0	3				0	0	0	0	2	6.134	0	0	
S	South-Freeflow Approach	S-FA		515	35	0	12	0.511								2	
S	South-Through Traffic Queue	S-TQ	SBT	440	3				0	0	110	91	2	6.134	1,770	19	
S	South-Freeflow Departure	S-FD		972	35	0	12	0.511								2	
S	South-Left Turn Queue	S-LQ	SBL	0	3				0	0	0	0	2	6.134	0	0	
S	South-Right Turn Queue	S-RQ	SBR	75	3				0	0	110	91	2	6.134	1,446	19	
W	West-Freeflow Approach	W-FA		4,408	35	0	15	0.511								3	
W	West-Through Traffic Queue	W-TQ	WBT	3,876	3				0	0	110	29.2	2	6.134	1,695	80.8	
W	West-Freeflow Departure	W-FD		3,951	35	0	15	0.511								3	
W	West-Left Turn Queue	W-LQ	WBL	532	3				0	0	110	29.2	2	6.134	1,842	80.8	
W	West-Right Turn Queue	W-RQ	WBR	0	3				0	0	0	0	2	6.134	0	0	
E	East-Freeflow Approach	E-FA		0	35	0	6	0.511								0	
E	East-Through Traffic Queue	E-TQ	EBT	0	3				0	0	0	0	2	6.134	0	0	
E	East-Freeflow Departure	E-FD		0	35	0	6	0.511								0	
E	East-Left Turn Queue	E-LQ	EBL	0	3				0	0	0	0	2	6.134	0	0	
E	East-Right Turn Queue	E-RQ	EBR	0	3				0	0	0	0	2	6.134	0	0	

Data in black obtained from traffic reports
Data in blue are calculated values

Mixing zone width for freeflow traffic = road width + 6 meters
Mixing zone width for queue traffic = road width

Lane width 3 m

Direction Legend
N = Northbound
S = Southbound
W = Westbound
E = Eastbound

Intersection 23 (Hawthorn St & State St)

Existing Conditions (2018)

AM Peak Hour						No. Links: 8		Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s	
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate					
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane					
N	North-Freeflow Approach	N-FA		66	35	0	12	1.321									2			
N	North-Through Traffic Queue	N-TQ	NBT	35	3				0	0	110	90.5	2	10.666	1,770		2	19.5		
N	North-Freeflow Departure	N-FD		124	35	0	12	1.321									2			
N	North-Left Turn Queue	N-LQ	NBL	31	3				0	0	110	90.5	2	10.666	1,784		0	19.5		
N	North-Right Turn Queue	N-RQ	NBR	0	3				0	0	0	0	2	10.666	0		0	0		
S	South-Freeflow Approach	S-FA		0	35	0	6	1.321									0			
S	South-Through Traffic Queue	S-TQ	SBT	0	3				0	0	0	0	2	10.666	0		0	0		
S	South-Freeflow Departure	S-FD		0	35	0	6	1.321									0			
S	South-Left Turn Queue	S-LQ	SBL	0	3				0	0	0	0	2	10.666	0		0	0		
S	South-Right Turn Queue	S-RQ	SBR	0	3				0	0	0	0	2	10.666	0		0	0		
W	West-Freeflow Approach	W-FA		2,502	35	0	15	1.321									3			
W	West-Through Traffic Queue	W-TQ	WBT	2,413	3				0	0	110	29.9	2	10.666	1,695		3	80.1		
W	West-Freeflow Departure	W-FD		2,444	35	0	15	1.321									3			
W	West-Left Turn Queue	W-LQ	WBL	0	3				0	0	0	0	2	10.666	0		0	0		
W	West-Right Turn Queue	W-RQ	WBR	89	3				0	0	110	29.9	2	10.666	1,828		0	80.1		
E	East-Freeflow Approach	E-FA		0	35	0	6	1.321									0			
E	East-Through Traffic Queue	E-TQ	EBT	0	3				0	0	0	0	2	10.666	0		0	0		
E	East-Freeflow Departure	E-FD		0	35	0	6	1.321									0			
E	East-Left Turn Queue	E-LQ	EBL	0	3				0	0	0	0	2	10.666	0		0	0		
E	East-Right Turn Queue	E-RQ	EBR	0	3				0	0	0	0	2	10.666	0		0	0		
Total				2,568																

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AM Peak Hour						Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate		
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane		
N	North-Freeflow Approach	N-FA		321	35	0	12	0.511								2	
N	North-Through Traffic Queue	N-TQ	NBT	153	3				0	0	110	91	2	6.134	1,770	2	19
N	North-Freeflow Departure	N-FD		274	35	0	12	0.511								2	
N	North-Left Turn Queue	N-LQ	NBL	168	3				0	0	110	91	2	6.134	1,774	0	19
N	North-Right Turn Queue	N-RQ	NBR	0	3				0	0	0	0	2	6.134	0	0	0
S	South-Freeflow Approach	S-FA		0	35	0	6	0.511								0	
S	South-Through Traffic Queue	S-TQ	SBT	0	3				0	0	0	0	2	6.134	0	0	0
S	South-Freeflow Departure	S-FD		0	35	0	6	0.511								0	
S	South-Left Turn Queue	S-LQ	SBL	0	3				0	0	0	0	2	6.134	0	0	0
S	South-Right Turn Queue	S-RQ	SBR	0	3				0	0	0	0	2	6.134	0	0	0
W	West-Freeflow Approach	W-FA		4,418	35	0	15	0.511								3	
W	West-Through Traffic Queue	W-TQ	WBT	4,297	3				0	0	110	29.4	2	6.134	1,695	3	80.6
W	West-Freeflow Departure	W-FD		4,465	35	0	15	0.511								3	
W	West-Left Turn Queue	W-LQ	WBL	0	3				0	0	0	0	2	6.134	0	0	0
W	West-Right Turn Queue	W-RQ	WBR	121	3				0	0	110	29.4	2	6.134	1,844	0	80.6
E	East-Freeflow Approach	E-FA		0	35	0	6	0.511								0	
E	East-Through Traffic Queue	E-TQ	EBT	0	3				0	0	0	0	2	6.134	0	0	0
E	East-Freeflow Departure	E-FD		0	35	0	6	0.511								0	
E	East-Left Turn Queue	E-LQ	EBL	0	3				0	0	0	0	2	6.134	0	0	0
E	East-Right Turn Queue	E-RQ	EBR	0	3				0	0	0	0	2	6.134	0	0	0

Data in black obtained from traffic reports
Data in blue are calculated values

Mixing zone width for freeflow traffic = road width + 6 meters
Mixing zone width for queue traffic = road width

Lane width 3 m

Direction Legend
N = Northbound
S = Southbound
W = Westbound
E = Eastbound

Intersection 24 (I-5 NB Off-Ramp/Brandt & Hawthorn)

Existing Conditions (2018)

PM Peak Hour		No. Links: 9				Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s	
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate			
						m	m	g/v-mi										m
N	North-Freeflow Approach	N-FA		106	35	0	9	1.321									1	
N		N-TQ	NBT	103	3												1	
N		N-FD		596	35	0	9	1.321									1	
N		N-LQ	NBL	3	3												1	
N		N-RQ	NBR	0	3												0	
S	n/a	n/a			35	0	6	1.321									0	
S	n/a	S-TQ	SBT	0	3												0	
S	n/a	S-FD			35	0	6	1.321									0	
S	n/a	S-LQ	SBL	0	3												0	
S	Brant to I-5 NB	S-FA	SBR	25	35	0	9	1.321									1	
W	Hawthorn Approach	W-FA		722	35	0	12	1.321									2	
W	Hawthorn Through Traffic Queue	W-TQ	WBT	154	3												2	
W	Hawthorn Departure	W-FD		154	35	0	12	1.321									2	
W	n/a	W-LQ	WBL	0	3												0	
W	Hawthorn to I-5 NB	W-RT	WBR	568	35	0	9	1.321									1	
E	n/a	E-FA			35	0	6	1.321									0	
E	n/a	E-TQ	EBT	0	3												0	
E	n/a	E-FD			35	0	6	1.321									0	
E	n/a	E-LQ	EBL	0	3												0	
E	n/a	E-RQ	EBR	0	3												0	
Total				853														

2050 Plus Project

PM Peak Hour						Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate		
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane		
N	North-Freeflow Approach	N-FA		242	35	0	9	0.511								1	
N		N-TQ	NBT	236	3											1	
N		N-FD		959	35	0	9	0.511								1	
N		N-LQ	NBL	6	3											1	
N		N-RQ	NBR	0	3											0	
S	n/a	n/a			35	0	6	0.511								0	
S	n/a	S-TQ	SBT	0	3											0	
S	n/a	S-FD			35	0	6	0.511								0	
S	n/a	S-LQ	SBL	0	3											0	
S	Brant to I-5 NB	S-FA	SBR	54	35	0	9	0.511								1	
W	Hawthorn Approach	W-FA		1,097	35	0	12	0.511								2	
W	Hawthorn Through Traffic Queue	W-TQ	WBT	198	3											2	
W	Hawthorn Departure	W-FD		198	35	0	12	0.511								2	
W	n/a	W-LQ	WBL	0	3											0	
W	Hawthorn to I-5 NB	W-RT	WBR	899	35	0	9	0.511								1	
E	n/a	E-FA			35	0	6	1.321								0	
E	n/a	E-TQ	EBT	0	3											0	
E	n/a	E-FD			35	0	6	0.511								0	
E	n/a	E-LQ	EBL	0	3											0	
E	n/a	E-RQ	EBR	0	3											0	

Data in black obtained from traffic reports
Data in blue are calculated values

Mixing zone width for freeflow traffic = road width + 6 meters
Mixing zone width for queue traffic = road width

Direction Legend
N = Northbound
S = Southbound
W = Westbound
E = Eastbound

Lane width 3 m

Intersection 27 (Grape St & Kettner Blvd)

Existing Conditions (2018)

PM Peak Hour			No. Links: 8			Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate		
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane		
N	North-Freeflow Approach	N-FA		0	35	0	6	1.321								0	
N	North-Through Traffic Queue	N-TQ	NBT	0	3				0	0	0	0	2	10.666	0	0	0
N	North-Freeflow Departure	N-FD		0	35	0	6	1.321								0	
N	North-Left Turn Queue	N-LQ	NBL	0	3				0	0	0	0	2	10.666	0	0	0
N	North-Right Turn Queue	N-RQ	NBR	0	3				0	0	0	0	2	10.666	0	0	0
S	South-Freeflow Approach	S-FA		699	35	0	15	1.321								3	
S	South-Through Traffic Queue	S-TQ	SBT	485	3				0	9	110	73.9	2	10.666	1,695	3	36.1
S	South-Freeflow Departure	S-FD		534	35	0	15	1.321								3	
S	South-Left Turn Queue	S-LQ	SBL	214	3				0	3	110	73.9	2	10.666	1,789	1	36.1
S	South-Right Turn Queue	S-RQ	SBR	0	3				0	0	0	0	2	10.666	0	0	0
W	West-Freeflow Approach	W-FA		0	35	0	6	1.321								0	
W	West-Through Traffic Queue	W-TQ	WBT	0	3				0	0	0	0	2	10.666	0	0	0
W	West-Freeflow Departure	W-FD		0	35	0	6	1.321								0	
W	West-Left Turn Queue	W-LQ	WBL	0	3				0	0	0	0	2	10.666	0	0	0
W	West-Right Turn Queue	W-RQ	WBR	0	3				0	0	0	0	2	10.666	0	0	0
E	East-Freeflow Approach	E-FA		1,620	35	0	15	1.321								3	
E	East-Through Traffic Queue	E-TQ	EBT	1,571	3				0	9	110	45.9	2	10.666	1,695	3	64.1
E	East-Freeflow Departure	E-FD		1,785	35	0	15	1.321								3	
E	East-Left Turn Queue	E-LQ	EBL	0	3				0	0	0	0	2	10.666	0	0	0
E	East-Right Turn Queue	E-RQ	EBR	49	3				0	3	110	45.9	2	10.666	1,825	1	64.1
Total				2,319													

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PM Peak Hour						Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate		
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane		
N	North-Freeflow Approach	N-FA		0	35	0	6	0.511								0	
N	North-Through Traffic Queue	N-TQ	NBT	0	3				0	0	0	0	2	6.134	0	0	0
N	North-Freeflow Departure	N-FD		0	35	0	6	0.511								0	
N	North-Left Turn Queue	N-LQ	NBL	0	3				0	0	0	0	2	6.134	0	0	0
N	North-Right Turn Queue	N-RQ	NBR	0	3				0	0	0	0	2	6.134	0	0	0
S	South-Freeflow Approach	S-FA		1,700	35	0	15	0.511								3	
S	South-Through Traffic Queue	S-TQ	SBT	1,227	3				0	9	110	77.3	2	6.134	1,695	3	32.7
S	South-Freeflow Departure	S-FD		1,336	35	0	15	0.511								3	
S	South-Left Turn Queue	S-LQ	SBL	473	3				0	3	110	77.3	2	6.134	1,806	1	32.7
S	South-Right Turn Queue	S-RQ	SBR	0	3				0	0	0	0	2	6.134	0	0	0
W	West-Freeflow Approach	W-FA		0	35	0	6	0.511								0	
W	West-Through Traffic Queue	W-TQ	WBT	0	3				0	0	0	0	2	6.134	0	0	0
W	West-Freeflow Departure	W-FD		0	35	0	6	0.511								0	
W	West-Left Turn Queue	W-LQ	WBL	0	3				0	0	0	0	2	6.134	0	0	0
W	West-Right Turn Queue	W-RQ	WBR	0	3				0	0	0	0	2	6.134	0	0	0
E	East-Freeflow Approach	E-FA		3,376	35	0	15	0.511								3	
E	East-Through Traffic Queue	E-TQ	EBT	3,267	3				0	9	110	42.5	2	6.134	1,695	3	67.5
E	East-Freeflow Departure	E-FD		3,740	35	0	15	0.511								3	
E	East-Left Turn Queue	E-LQ	EBL	0	3				0	0	0	0	2	6.134	0	0	0
E	East-Right Turn Queue	E-RQ	EBR	109	3				0	3	110	42.5	2	6.134	1,829	1	67.5

Data in black obtained from traffic reports

Data in blue are calculated values

Mixing zone width for freeflow traffic = road width + 6 meters

Mixing zone width for queue traffic = road width

Lane width 3 m

Direction Legend

N = Northbound

S = Southbound

W = Westbound

E = Eastbound

Intersection 28 (Grape St & India St)

Existing Conditions (2018)

PM Peak Hour						No. Links: 8		Freeflow Traffic Input Data			Queue Traffic Data						# Lanes	Green time length s
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate			
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane			
N	North-Freeflow Approach	N-FA		386	35	0	12	1.321										
N	North-Through Traffic Queue	N-TQ	NBT	204	3				0	0	110	72.9	2	10.666	1,770			
N	North-Freeflow Departure	N-FD		278	35	0	12	1.321										
N	North-Left Turn Queue	N-LQ	NBL	0	3				0	0	0	0	2	10.666	0			
N	North-Right Turn Queue	N-RQ	NBR	182	3				0	0	110	72.9	2	10.666	1,442			
S	South-Freeflow Approach	S-FA		0	35	0	12	1.321										
S	South-Through Traffic Queue	S-TQ	SBT	0	3				0	0	0	0	2	10.666	0			
S	South-Freeflow Departure	S-FD		0	35	0	12	1.321										
S	South-Left Turn Queue	S-LQ	SBL	0	3				0	0	0	0	2	10.666	0			
S	South-Right Turn Queue	S-RQ	SBR	0	3				0	0	0	0	2	10.666	0			
W	West-Freeflow Approach	W-FA		0	35	0	12	1.321										
W	West-Through Traffic Queue	W-TQ	WBT	0	3				0	0	0	0	2	10.666	0			
W	West-Freeflow Departure	W-FD		0	35	0	12	1.321										
W	West-Left Turn Queue	W-LQ	WBL	0	3				0	0	0	0	2	10.666	0			
W	West-Right Turn Queue	W-RQ	WBR	0	3				0	0	0	0	2	10.666	0			
E	East-Freeflow Approach	E-FA		1,786	35	0	15	1.321										
E	East-Through Traffic Queue	E-TQ	EBT	1,712	3				0	0	110	46.9	2	10.666	1,695			
E	East-Freeflow Departure	E-FD		1,894	35	0	15	1.321										
E	East-Left Turn Queue	E-LQ	EBL	74	3				0	0	110	46.9	2	10.666	1,853			
E	East-Right Turn Queue	E-RQ	EBR	0	3				0	0	0	0	2	10.666	0			
Total				2,172														

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PM Peak Hour						Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate		
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane		
N	North-Freeflow Approach	N-FA		488	35	0	12	0.511								2	
N	North-Through Traffic Queue	N-TQ	NBT	281	3				0	0	110	89.5	2	6.134	1,770	2	20.5
N	North-Freeflow Departure	N-FD		473	35	0	12	0.511								2	
N	North-Left Turn Queue	N-LQ	NBL	0	3				0	0	0	0	2	6.134	0	0	0
N	North-Right Turn Queue	N-RQ	NBR	207	3				0	0	110	89.5	2	6.134	1,328	0	20.5
S	South-Freeflow Approach	S-FA		0	35	0	12	0.511								2	
S	South-Through Traffic Queue	S-TQ	SBT	0	3				0	0	0	0	2	6.134	0	2	0
S	South-Freeflow Departure	S-FD		0	35	0	12	0.511								2	
S	South-Left Turn Queue	S-LQ	SBL	0	3				0	0	0	0	2	6.134	0	0.5	0
S	South-Right Turn Queue	S-RQ	SBR	0	3				0	0	0	0	2	6.134	0	1.5	0
W	West-Freeflow Approach	W-FA		0	35	0	12	0.511								2	
W	West-Through Traffic Queue	W-TQ	WBT	0	3				0	0	0	0	2	6.134	0	2	0
W	West-Freeflow Departure	W-FD		0	35	0	12	0.511								2	
W	West-Left Turn Queue	W-LQ	WBL	0	3				0	0	0	0	2	6.134	0	1	0
W	West-Right Turn Queue	W-RQ	WBR	0	3				0	0	0	0	2	6.134	0	0	0
E	East-Freeflow Approach	E-FA		4,133	35	0	15	0.511								3	
E	East-Through Traffic Queue	E-TQ	EBT	3,941	3				0	0	110	30.3	2	6.134	1,695	3	79.7
E	East-Freeflow Departure	E-FD		4,148	35	0	15	0.511								3	
E	East-Left Turn Queue	E-LQ	EBL	192	3				0	0	110	30.3	2	6.134	1,856	0	79.7
E	East-Right Turn Queue	E-RQ	EBR	0	3				0	0	0	0	2	6.134	0	0	0

Data in black obtained from traffic reports

Data in blue are calculated values

Mixing zone width for freeflow traffic = road width + 6 meters

Mixing zone width for queue traffic = road width

Lane width 3 m

Direction Legend

N = Northbound

S = Southbound

W = Westbound

E = Eastbound

Intersection 29 (Grape St & Columbia St)

Existing Conditions (2018)

PM Peak Hour			No. Links: 8			Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate		
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane		
N	North-Freeflow Approach	N-FA		0	35	0	6	1.321								0	
N	North-Through Traffic Queue	N-TQ	NBT	0	3				0	0	0	0	2	10.666	0	0	
N	North-Freeflow Departure	N-FD		0	35	0	6	1.321								0	
N	North-Left Turn Queue	N-LQ	NBL	0	3				0	0	0	0	2	10.666	0	0	
N	North-Right Turn Queue	N-RQ	NBR	0	3				0	0	0	0	2	10.666	0	0	
S	South-Freeflow Approach	S-FA		687	35	0	12	1.321								2	
S	South-Through Traffic Queue	S-TQ	SBT	396	3				0	0	110	63.9	2	10.666	1,770	46.1	
S	South-Freeflow Departure	S-FD		450	35	0	12	1.321								2	
S	South-Left Turn Queue	S-LQ	SBL	291	3				0	0	110	63.9	2	10.666	1,774	46.1	
S	South-Right Turn Queue	S-RQ	SBR	0	3				0	0	0	0	2	10.666	0	0	
W	West-Freeflow Approach	W-FA		0	35	0	6	1.321								0	
W	West-Through Traffic Queue	W-TQ	WBT	0	3				0	0	0	0	2	10.666	0	0	
W	West-Freeflow Departure	W-FD		0	35	0	6	1.321								0	
W	West-Left Turn Queue	W-LQ	WBL	0	3				0	0	0	0	2	10.666	0	0	
W	West-Right Turn Queue	W-RQ	WBR	0	3				0	0	0	0	2	10.666	0	0	
E	East-Freeflow Approach	E-FA		1,907	35	0	15	1.321								3	
E	East-Through Traffic Queue	E-TQ	EBT	1,853	3				0	0	110	55.9	2	10.666	1,695	54.1	
E	East-Freeflow Departure	E-FD		2,144	35	0	15	1.321								3	
E	East-Left Turn Queue	E-LQ	EBL	0	3				0	0	0	0	2	10.666	0	0	
E	East-Right Turn Queue	E-RQ	EBR	54	3				0	0	110	55.9	2	10.666	1,831	54.1	
Total				2,594													

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PM Peak Hour						Freeflow Traffic Input Data			Queue Traffic Data							# Lanes	Green time length s
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate		
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane		
N	North-Freeflow Approach	N-FA		0	35	0	6	0.511								0	
N	North-Through Traffic Queue	N-TQ	NBT	0	3				0	0	0	0	2	6.134	0	0	
N	North-Freeflow Departure	N-FD		0	35	0	6	0.511								0	
N	North-Left Turn Queue	N-LQ	NBL	0	3				0	0	0	0	2	6.134	0	0	
N	North-Right Turn Queue	N-RQ	NBR	0	3				0	0	0	0	2	6.134	0	0	
S	South-Freeflow Approach	S-FA		1,317	35	0	12	0.511								2	
S	South-Through Traffic Queue	S-TQ	SBT	842	3				0	0	110	91	2	6.134	1,770	19	
S	South-Freeflow Departure	S-FD		1,001	35	0	12	0.511								2	
S	South-Left Turn Queue	S-LQ	SBL	475	3				0	0	110	91	2	6.134	1,774	19	
S	South-Right Turn Queue	S-RQ	SBR	0	3				0	0	0	0	2	6.134	0	0	
W	West-Freeflow Approach	W-FA		0	35	0	6	0.511								0	
W	West-Through Traffic Queue	W-TQ	WBT	0	3				0	0	0	0	2	6.134	0	0	
W	West-Freeflow Departure	W-FD		0	35	0	6	0.511								0	
W	West-Left Turn Queue	W-LQ	WBL	0	3				0	0	0	0	2	6.134	0	0	
W	West-Right Turn Queue	W-RQ	WBR	0	3				0	0	0	0	2	6.134	0	0	
E	East-Freeflow Approach	E-FA		4,533	35	0	15	0.511								3	
E	East-Through Traffic Queue	E-TQ	EBT	4,374	3				0	0	110	28.8	2	6.134	1,695	81.2	
E	East-Freeflow Departure	E-FD		4,849	35	0	15	0.511								3	
E	East-Left Turn Queue	E-LQ	EBL	0	3				0	0	0	0	2	6.134	0	0	
E	East-Right Turn Queue	E-RQ	EBR	159	3				0	0	110	28.8	2	6.134	1,833	81.2	

Data in black obtained from traffic reports

Data in blue are calculated values

Mixing zone width for freeflow traffic = road width + 6 meters

Mixing zone width for queue traffic = road width

Lane width 3 m

Direction Legend

N = Northbound

S = Southbound

W = Westbound

E = Eastbound

Intersection 30 (Grape St & State St)

Existing Conditions (2018)

PM Peak Hour						No. Links: 8			Freeflow Traffic Input Data			Queue Traffic Data					
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate	# Lanes	Green time length s
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane		
N	North-Freeflow Approach	N-FA		159	35	0	12	1.321									
N	North-Through Traffic Queue	N-TQ	NBT	67	3				0	0	110	87.9	2	10.666	1,770	2	22.1
N	North-Freeflow Departure	N-FD		86	35	0	12	1.321								2	
N	North-Left Turn Queue	N-LQ	NBL	0	3				0	0	0	0	2	10.666	0	0	0
N	North-Right Turn Queue	N-RQ	NBR	92	3				0	0	110	87.9	2	10.666	1,536	1	22.1
S	South-Freeflow Approach	S-FA		0	35	0	12	1.321								2	
S	South-Through Traffic Queue	S-TQ	SBT	0	3				0	0	0	0	2	10.666	0	2	0
S	South-Freeflow Departure	S-FD		0	35	0	12	1.321								2	
S	South-Left Turn Queue	S-LQ	SBL	0	3				0	0	0	0	2	10.666	0	0.5	0
S	South-Right Turn Queue	S-RQ	SBR	0	3				0	0	0	0	2	10.666	0	1.5	0
W	West-Freeflow Approach	W-FA		0	35	0	12	1.321								2	
W	West-Through Traffic Queue	W-TQ	WBT	0	3				0	0	0	0	2	10.666	0	2	0
W	West-Freeflow Departure	W-FD		0	35	0	12	1.321								2	
W	West-Left Turn Queue	W-LQ	WBL	0	3				0	0	0	0	2	10.666	0	1	0
W	West-Right Turn Queue	W-RQ	WBR	0	3				0	0	0	0	2	10.666	0	0	0
E	East-Freeflow Approach	E-FA		2,142	35	0	15	1.321								3	
E	East-Through Traffic Queue	E-TQ	EBT	2,123	3				0	0	110	31.9	2	10.666	1,695	3	78.1
E	East-Freeflow Departure	E-FD		2,215	35	0	15	1.321								3	
E	East-Left Turn Queue	E-LQ	EBL	19	3				0	0	110	31.9	2	10.666	1,861	1	78.1
E	East-Right Turn Queue	E-RQ	EBR	0	3				0	0	0	0	2	10.666	0	0	0
Total				2,301													

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PM Peak Hour						Freeflow Traffic Input Data			Queue Traffic Data						
Direction	Description	ID	Synchro Link	Volume	Speed mph	Link Height	Mixing Zone Width	Emission Factor	Link Height	Mixing Zone Width	Average signal cycle length	Average red time length	Clearance lost time	Idle Emission Factor	Saturation Flow Rate
						m	m	g/v-mi	m	m	s	s	s	g/v-hr	v/hr/lane
N	North-Freeflow Approach	N-FA		490	35	0	10.5	0.511							
N	North-Through Traffic Queue	N-TQ	NBT	340	3				0	0	110	91	2	6.134	1,770
N	North-Freeflow Departure	N-FD		459	35	0	10.5	0.511							
N	North-Left Turn Queue	N-LQ	NBL	0	3				0	0	0	0	2	6.134	0
N	North-Right Turn Queue	N-RQ	NBR	150	3				0	0	110	91	2	6.134	1,666
S	South-Freeflow Approach	S-FA		0	35	0	12	0.511							
S	South-Through Traffic Queue	S-TQ	SBT	0	3				0	0	0	0	2	6.134	0
S	South-Freeflow Departure	S-FD		0	35	0	12	0.511							
S	South-Left Turn Queue	S-LQ	SBL	0	3				0	0	0	0	2	6.134	0
S	South-Right Turn Queue	S-RQ	SBR	0	3				0	0	0	0	2	6.134	0
W	West-Freeflow Approach	W-FA		0	35	0	12	0.511							
W	West-Through Traffic Queue	W-TQ	WBT	0	3				0	0	0	0	2	6.134	0
W	West-Freeflow Departure	W-FD		0	35	0	12	0.511							
W	West-Left Turn Queue	W-LQ	WBL	0	3				0	0	0	0	2	6.134	0
W	West-Right Turn Queue	W-RQ	WBR	0	3				0	0	0	0	2	6.134	0
E	East-Freeflow Approach	E-FA		4,530	35	0	15	0.511							
E	East-Through Traffic Queue	E-TQ	EBT	4,411	3				0	0	110	28.8	2	6.134	1,695
E	East-Freeflow Departure	E-FD		4,561	35	0	15	0.511							
E	East-Left Turn Queue	E-LQ	EBL	119	3				0	0	110	28.8	2	6.134	1,856
E	East-Right Turn Queue	E-RQ	EBR	0	3				0	0	0	0	2	6.134	0

Data in black obtained from traffic reports

Data in blue are calculated values

Mixing zone width for freeflow traffic = road width + 6 meters

Mixing zone width for queue traffic = road width

Lane width

3 m

Direction Legend

N = Northbound

S = Southbound

W = Westbound

E = Eastbound

San Diego Airport - Traffic Count Data

Traffic Counts (Existing Conditions - 2018)

Type	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total	NB	SB	EB	WB	Rank
Intersection 7 (San Diego Ave & Washington)																		
AM Peak Hour	0	0	0	526	511	0	24	194	113	0	482	189	2,039	909	0	506	624	14
PM Peak Hour	0	0	0	448	449	0	43	152	106	0	1,245	262	2,705	862	0	1,288	555	3
Intersection 10 (Kettner Blvd & Sassafras St)																		
AM Peak Hour	506	1,070	86	0	167	95	0	0	0	136	109	0	2,169	0	1,301	195	673	12
PM Peak Hour	341	1,535	240	0	157	54	0	0	0	217	228	0	2,772	0	1,806	468	498	2
Intersection 16 (Laurel Dr & Kettner Blvd)																		
AM Peak Hour	661	196	221	0	159	31	0	0	0	41	559	0	1,868	0	268	780	820	16
PM Peak Hour	466	571	329	0	165	43	0	0	0	96	1,161	0	2,831	0	710	1,490	631	1
Intersection 20 (Hawthorn St & Kettner Blvd)																		
AM Peak Hour	50	154	0	0	1,882	262	0	0	0	0	0	0	2,348	0	416	0	1,932	7
PM Peak Hour	61	451	0	0	1,172	254	0	0	0	0	0	0	1,938	0	705	0	1,233	15
Intersection 21 (Hawthorn St & India St)																		
AM Peak Hour	0	0	0	114	2,050	0	0	90	67	0	0	0	2,321	204	0	0	2,117	8
PM Peak Hour	0	0	0	92	1,327	0	0	181	85	0	0	0	1,685	273	0	0	1,412	19
Intersection 22 (Hawthorn St & Columbia St)																		
AM Peak Hour	38	209	0	0	2,129	299	0	0	0	0	0	0	2,675	0	508	0	2,167	4
PM Peak Hour	52	497	0	0	1,373	204	0	0	0	0	0	0	2,126	0	701	0	1,425	13
Intersection 23 (Hawthorn St & State St)																		
AM Peak Hour	0	0	0	89	2,413	0	0	35	31	0	0	0	2,568	124	0	0	2,444	6
PM Peak Hour	0	0	0	80	1,576	0	0	71	23	0	0	0	1,750	151	0	0	1,599	18
Intersection 24 (I-5 NB Off-Ramp/Brandt & Hawthorn)																		
AM Peak Hour	17	0	0	415	117	0	0	98	1	0	0	0	648	513	0	0	135	24
PM Peak Hour	25	0	0	568	154	0	0	103	3	0	0	0	853	671	0	0	182	23
Intersection 27 (Grape St & Kettner Blvd)																		
AM Peak Hour	0	304	108	0	0	0	0	0	0	34	1,106	0	1,552	0	338	1,214	0	20
PM Peak Hour	0	485	214	0	0	0	0	0	0	49	1,571	0	2,319	0	534	1,785	0	9
Intersection 28 (Grape St & India St)																		
AM Peak Hour	0	0	0	0	0	0	156	101	0	0	1,181	49	1,487	150	0	1,337	0	22
PM Peak Hour	0	0	0	0	0	0	182	204	0	0	1,712	74	2,172	278	0	1,894	0	11
Intersection 29 (Grape St & Columbia St)																		
AM Peak Hour	0	339	168	0	0	0	0	0	0	53	1,258	0	1,818	0	392	1,426	0	17
PM Peak Hour	0	396	291	0	0	0	0	0	0	54	1,853	0	2,594	0	450	2,144	0	5
Intersection 30 (Grape St & State St)																		
AM Peak Hour	0	0	0	0	0	0	68	42	0	0	1,386	30	1,526	72	0	1,454	0	21
PM Peak Hour	0	0	0	0	0	0	92	67	0	0	2,123	19	2,301	86	0	2,215	0	10
Maximum													2,831					

Traffic Counts (2050 plus Project Peak-Hour Traffic Volumes)

Type	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total	NB	SB	EB	WB	Rank
Intersection 7 (San Diego Ave & Washington)																		
AM Peak Hour	0	0	0	1,500	728	0	238	433	107	0	849	140	3,995	2,073	0	1,087	835	15
PM Peak Hour	0	0	0	1,413	625	0	408	319	67	0	2,109	175	5,116	1,907	0	2,517	692	3
Intersection 10 (Kettner Blvd & Sassafras St)																		
AM Peak Hour	831	1,955	110	0	434	194	0	0	0	245	175	0	3,944	0	2,394	285	1,265	16
PM Peak Hour	515	2,688	298	0	323	120	0	0	0	401	388	0	4,733	0	3,209	686	838	8
Intersection 16 (Laurel Dr & Kettner Blvd)																		
AM Peak Hour	1,334	597	424	0	231	66	0	0	0	88	1,056	0	3,796	0	751	1,480	1,565	17
PM Peak Hour	1,001	1,561	519	0	239	91	0	0	0	231	1,833	0	5,475	0	1,883	2,352	1,240	2
Intersection 20 (Hawthorn St & Kettner Blvd)																		
AM Peak Hour	106	430	0	0	3,261	538	0	0	0	0	0	0	4,335	0	968	0	3,367	10
PM Peak Hour	137	1,191	0	0	2,205	466	0	0	0	0	0	0	3,999	0	1,657	0	2,342	14
Intersection 21 (Hawthorn St & India St)																		
AM Peak Hour	0	0	0	230	3,640	0	0	179	107	0	0	0	4,156	409	0	0	3,747	12
PM Peak Hour	0	0	0	191	2,523	0	0	355	130	0	0	0	3,199	546	0	0	2,653	22
Intersection 22 (Hawthorn St & Columbia St)																		
AM Peak Hour	75	440	0	0	3,876	532	0	0	0	0	0	0	4,923	0	972	0	3,951	6
PM Peak Hour	110	1,023	0	0	2,679	331	0	0	0	0	0	0	4,143	0	1,354	0	2,789	13
Intersection 23 (Hawthorn St & State St)																		
AM Peak Hour	0	0	0	121	4,297	0	0	153	168	0	0	0	4,739	274	0	0	4,465	7
PM Peak Hour	0	0	0	69	2,967	0	0	271	176	0	0	0	3,483	340	0	0	3,143	20
Intersection 24 (I-5 NB Off-Ramp/Brandt & Hawthorn)																		
AM Peak Hour	37	0	0	649	153	0	0	223	2	0	0	0	1,064	872	0	0	192	24
PM Peak Hour	54	0	0	899	198	0	0	236	6	0	0	0	1,393	1,135	0	0	258	23
Intersection 27 (Grape St & Kettner Blvd)																		
AM Peak Hour	0	765	241	0	0	0	0	0	0	77	2,479	0	3,562	0	842	2,720	0	18
PM Peak Hour	0	1,227	473	0	0	0	0	0	0	109	3,267	0	5,076	0	1,336	3,740	0	4
Intersection 28 (Grape St & India St)																		
AM Peak Hour	0	0	0	0	0	0	189	136	0	0	2,910	119	3,354	255	0	3,099	0	21
PM Peak Hour	0	0	0	0	0	0	207	281	0	0	3,941	192	4,621	473	0	4,148	0	9
Intersection 29 (Grape St & Columbia St)																		
AM Peak Hour	0	711	264	0	0	0	0	0	0	160	3,144	0	4,279	0	871	3,408	0	11
PM Peak Hour	0	842	475	0	0	0	0	0	0	159	4,374	0	5,850	0	1,001	4,849	0	1
Intersection 30 (Grape St & State St)																		
AM Peak Hour	0	0	0	0	0	0	125	216	0	0	3,039	165	3,545	381	0	3,164	0	19
PM Peak Hour	0	0	0	0	0	0	150	340	0	0	4,411	119	5,020	459	0	4,561	0	5

Intersection #	Intersection Name	E-W Speed	N-S Speed
7	San Diego Ave & Washington	35	35
10	Kettner Blvd & Sassafras St	35	35
16	Laurel Dr & Kettner Blvd	35	35
20	Hawthorn St & Kettner Blvd	35	35
21	Hawthorn St & India St	35	35
22	Hawthorn St & Columbia St	35	35
23	Hawthorn St & State St	35	35
24	I-5 NB Off-Ramp/Brandt & Hawthorn	35	35
27	Grape St & Kettner Blvd	35	35
28	Grape St & India St	35	35
29	Grape St & Columbia St	35	35
30	Grape St & State St	35	35

CO Emission Factors (Aggregate Fleet Mix)																
Speed, mph	2018	2050														
5	3.55527391	2.04459766														
10	2.87717404	1.77030088														
15	2.20684325	1.21840592														
20	2.43822263	2.02854152														
25	1.55844035	0.59804386														
30	1.42294496	0.54455823														
35	1.32115007	0.51100853														
40	1.23842197	0.48374281														
45	1.16256713	0.45148655														
50	1.07684346	0.38865791														
55	1.04506175	0.3762519														
60	1.01211386	0.37603095														
65	1.01840219	0.38342766														
70	0.70347344	0.15416943														
75	0.76333582	0.18515213														
80	n/a	n/a														
85	n/a	n/a														
90	n/a	n/a														
EMFAC2017 (v1.0.2) Emission Rates																
Region Type: Air Basin																
Region: SAN DIEGO																
Calendar Year: 2018																
Season: Annual																
Vehicle Classification: EMFAC2011 Categories																
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW																
Region	Calendar Year	Vehicle Catego	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2018	All Other Buse	Aggregated	5	DSL	478.412091	4.18774694	4.76743112	5.24697129	16.2376048	0.02365075	2503.38624	0.19451	0.91598267	0.87635766	0.39349746
SAN DIEGO	2018	All Other Buse	Aggregated	10	DSL	1446.29352	3.21432721	3.65926685	4.40509033	13.3462718	0.02042545	2161.9939	0.14929717	0.76483946	0.73175284	0.33983533
SAN DIEGO	2018	All Other Buse	Aggregated	15	DSL	1645.07669	1.72233013	1.96074174	3.17967238	9.50326143	0.01646097	1742.36201	0.07999777	0.52012374	0.49762342	0.27387504
SAN DIEGO	2018	All Other Buse	Aggregated	20	DSL	1910.61242	0.82086927	0.93449718	2.33884058	7.49870554	0.01386568	1467.65563	0.03812725	0.35074189	0.33556895	0.23069503
SAN DIEGO	2018	All Other Buse	Aggregated	25	DSL	2323.90155	0.58720911	0.66849287	1.90886956	6.772257	0.01228255	1300.08401	0.02727434	0.28267693	0.27044845	0.2043551
SAN DIEGO	2018	All Other Buse	Aggregated	30	DSL	3168.85789	0.47978757	0.54620163	1.61400287	6.27129716	0.01115302	1180.52538	0.02228489	0.24339062	0.23286165	0.18556215
SAN DIEGO	2018	All Other Buse	Aggregated	35	DSL	5828.77013	0.39635456	0.4512195	1.37033196	5.88342163	0.01026617	1086.65393	0.01840964	0.215315	0.20600057	0.17080686
SAN DIEGO	2018	All Other Buse	Aggregated	40	DSL	6929.71395	0.33638307	0.38294652	1.17662129	5.61447779	0.00961549	1017.78088	0.01562412	0.19845054	0.18986566	0.15998098
SAN DIEGO	2018	All Other Buse	Aggregated	45	DSL	4392.20921	0.29939306	0.34083621	1.03207351	5.46005927	0.00919717	973.502396	0.01390603	0.19283589	0.18449389	0.15302102
SAN DIEGO	2018	All Other Buse	Aggregated	50	DSL	1296.69277	0.28491558	0.3243547	0.93624209	5.4212703	0.00900882	953.566415	0.01323359	0.19854453	0.18995558	0.14988736
SAN DIEGO	2018	All Other Buse	Aggregated	55	DSL	321.028394	0.29246639	0.33295072	0.88896707	5.50221379	0.00904891	957.810072	0.01358431	0.21568323	0.20635287	0.1505544
SAN DIEGO	2018	All Other Buse	Aggregated	60	DSL	23.5837057	0.30524069	0.34749329	0.88393947	5.63460997	0.00931684	986.169472	0.01417764	0.22906563	0.21915635	0.15501211
SAN DIEGO	2018	All Other Buse	Aggregated	65	DSL	0.01122966	0.30613931	0.3485163	0.88929669	5.7982687	0.00977289	1034.44189	0.01421938	0.23066322	0.22068484	0.16259986
SAN DIEGO	2018	All Other Buse	Aggregated	70	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	All Other Buse	Aggregated	75	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	All Other Buse	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	All Other Buse	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	All Other Buse	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	LDA	Aggregated	5	GAS	89192.5744	0.10830007	0.15717367	1.65127944	0.11372972	0.00679038	686.187551	0.02633533	0.01039105	0.00955505	0.01109638
SAN DIEGO	2018	LDA	Aggregated	5	DSL	979.423467	0.2320484	0.26417168	3.51619969	0.21948223	0.00541275	572.560252	0.0107782	0.04384538	0.04194865	0.0899985
SAN DIEGO	2018	LDA	Aggregated	10	GAS	247438.738	0.06905937	0.10017744	1.49339929	0.09789481	0.00552257	558.071239	0.01674694	0.00656215	0.00603425	0.009568
SAN DIEGO	2018	LDA	Aggregated	10	DSL	2717.12425	0.17105139	0.19473063	2.62157153	0.20140523	0.00450933	476.996735	0.00794501	0.03233667	0.0309378	0.07497724
SAN DIEGO	2018	LDA	Aggregated	15	GAS	611854.865	0.04642115	0.06730716	1.35769065	0.08581604	0.0045242	457.183197	0.01122727	0.00437127	0.00401966	0.00839501
SAN DIEGO	2018	LDA	Aggregated	15	DSL	6718.77695	0.09199592	0.10473124	1.33120923	0.16937934	0.00370891	392.328457	0.00427303	0.02456141	0.02349889	0.06166857
SAN DIEGO	2018	LDA	Aggregated	20	GAS	1985941.76	0.03281588	0.04755643	1.23674274	0.07693255	0.00376147	380.107253	0.00791582	0.00307103	0.00282403	0.00752735
SAN DIEGO	2018	LDA	Aggregated	20	DSL	21807.6222	0.04536681	0.05164709	0.57631263	0.14876879	0.00304251	321.836722	0.0021072	0.01927902	0.01844502	0.05058825

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2018	LDA	Aggregated	25	GAS	6033431.35	0.02443313	0.03539011	1.13086105	0.07028148	0.00321462	324.846573	0.00587928	0.00227517	0.0020922	0.00687388
SAN DIEGO	2018	LDA	Aggregated	25	DSL	66253.0966	0.03110064	0.03540601	0.37254125	0.14186753	0.00255036	269.776947	0.00144457	0.01568935	0.01501063	0.04240518
SAN DIEGO	2018	LDA	Aggregated	30	GAS	5119429.22	0.01918097	0.02776979	1.03914275	0.0651163	0.00285309	288.313355	0.00460596	0.00177723	0.00163432	0.00636328
SAN DIEGO	2018	LDA	Aggregated	30	DSL	56216.4412	0.02473337	0.02815729	0.29278465	0.14052296	0.00220908	233.676339	0.00114882	0.01332598	0.0127495	0.03673067
SAN DIEGO	2018	LDA	Aggregated	35	GAS	5829206.03	0.01584994	0.02293663	0.95811304	0.06148161	0.00264401	267.184727	0.0037993	0.00146363	0.00134595	0.00600064
SAN DIEGO	2018	LDA	Aggregated	35	DSL	64010.4987	0.02068932	0.02355342	0.24330279	0.14133235	0.00199697	211.238703	0.00096098	0.01176209	0.01125327	0.03320378
SAN DIEGO	2018	LDA	Aggregated	40	GAS	3685633.41	0.01378991	0.01994687	0.88665107	0.05903378	0.002558	258.493154	0.00330088	0.00127072	0.00116856	0.00575276
SAN DIEGO	2018	LDA	Aggregated	40	DSL	40471.9325	0.018078	0.02058061	0.21174116	0.1433813	0.00186871	197.672158	0.00083969	0.01076351	0.01029788	0.03107131
SAN DIEGO	2018	LDA	Aggregated	45	GAS	2497995.46	0.01264256	0.01828045	0.82462778	0.05753389	0.00256659	259.361343	0.00302348	0.00116301	0.00106951	0.00559643
SAN DIEGO	2018	LDA	Aggregated	45	DSL	27430.4828	0.01645038	0.01872766	0.19227773	0.14620275	0.00180503	190.936119	0.00076409	0.01020015	0.0097589	0.0300125
SAN DIEGO	2018	LDA	Aggregated	50	GAS	1794253.47	0.01218697	0.01761505	0.76874518	0.05719226	0.00263884	266.662507	0.00291268	0.00112211	0.00103191	0.00555161
SAN DIEGO	2018	LDA	Aggregated	50	DSL	19702.6934	0.01557891	0.01773555	0.18223541	0.14958695	0.00180963	191.422162	0.00072361	0.01001005	0.00957702	0.0300889
SAN DIEGO	2018	LDA	Aggregated	55	GAS	1436250.63	0.01241905	0.01794773	0.72318512	0.05713923	0.00275119	278.015122	0.002969	0.00114139	0.00104964	0.00553377
SAN DIEGO	2018	LDA	Aggregated	55	DSL	15771.4651	0.01537	0.01749773	0.18085611	0.1531759	0.00189363	200.308219	0.00071391	0.01018381	0.00974326	0.03148566
SAN DIEGO	2018	LDA	Aggregated	60	GAS	1579637.15	0.01328656	0.01919674	0.6815187	0.05866202	0.00286118	289.130048	0.00317722	0.00122406	0.00112567	0.00566618
SAN DIEGO	2018	LDA	Aggregated	60	DSL	17345.9921	0.01608862	0.01831583	0.19357228	0.15773014	0.00205293	217.158164	0.00074729	0.01083136	0.0103628	0.03413424
SAN DIEGO	2018	LDA	Aggregated	65	GAS	20817526.7	0.01493928	0.02157766	0.64507993	0.06188431	0.00294299	297.398029	0.0035732	0.00138418	0.00127292	0.00595884
SAN DIEGO	2018	LDA	Aggregated	65	DSL	228597.215	0.01777317	0.02023357	0.22182752	0.16306456	0.0023079	244.129726	0.00082553	0.01204125	0.01152035	0.03837379
SAN DIEGO	2018	LDT1	Aggregated	5	GAS	10129.1542	0.29565848	0.42632489	4.01371321	0.36014806	0.00799449	807.86639	0.06474701	0.01690353	0.0155473	0.02442583
SAN DIEGO	2018	LDT1	Aggregated	5	DSL	5.19676829	1.00208196	1.14080369	4.45301971	0.9452901	0.01027894	1087.30497	0.04654479	0.76749775	0.73429614	0.1709092
SAN DIEGO	2018	LDT1	Aggregated	10	GAS	28100.379	0.19344255	0.27874075	3.51739496	0.30196266	0.00650065	656.909541	0.0422002	0.01086236	0.00999111	0.02060691
SAN DIEGO	2018	LDT1	Aggregated	10	DSL	14.4169153	0.69982945	0.79670931	3.17961617	0.98883215	0.00865247	915.256926	0.03250574	0.53465244	0.51152362	0.14386564
SAN DIEGO	2018	LDT1	Aggregated	15	GAS	69485.2945	0.13313662	0.19171427	3.122788	0.25953379	0.00532523	538.130209	0.02894125	0.0073547	0.00676498	0.01778864
SAN DIEGO	2018	LDT1	Aggregated	15	DSL	35.6494695	0.50213168	0.57164353	2.29276994	1.03089209	0.00717432	758.898834	0.02332306	0.38968513	0.37282753	0.11928833
SAN DIEGO	2018	LDT1	Aggregated	20	GAS	225533.466	0.09613782	0.13833204	2.79663893	0.22949674	0.00442838	447.500916	0.02082586	0.00524282	0.00482256	0.01577106
SAN DIEGO	2018	LDT1	Aggregated	20	DSL	115.710072	0.37694885	0.42913121	1.74189212	1.07651368	0.00589425	623.49333	0.01750855	0.29717241	0.28431687	0.09800447
SAN DIEGO	2018	LDT1	Aggregated	25	GAS	685186.599	0.07287128	0.10477218	2.52722605	0.20789307	0.00378539	382.524097	0.01573518	0.00393199	0.0036169	0.01430208
SAN DIEGO	2018	LDT1	Aggregated	25	DSL	351.535371	0.29950015	0.34096101	1.4306362	1.12578515	0.00494212	522.776682	0.01391121	0.23712203	0.22686424	0.08217321
SAN DIEGO	2018	LDT1	Aggregated	30	GAS	581387.953	0.05798999	0.0833167	2.30478109	0.1918982	0.00335979	339.5167	0.01248824	0.0031006	0.00285221	0.01319862
SAN DIEGO	2018	LDT1	Aggregated	30	DSL	298.281417	0.24972385	0.284294	1.24535612	1.17659539	0.00427353	452.053885	0.0115992	0.19798809	0.18942322	0.07105658
SAN DIEGO	2018	LDT1	Aggregated	35	GAS	661993.752	0.04837376	0.06944787	2.1181036	0.1813229	0.00311335	314.612917	0.01039222	0.00256961	0.00236382	0.01245327
SAN DIEGO	2018	LDT1	Aggregated	35	DSL	339.636267	0.21792783	0.24809634	1.1421805	1.22880343	0.00385703	407.996004	0.01012233	0.17297485	0.16549203	0.06413129
SAN DIEGO	2018	LDT1	Aggregated	40	GAS	418558.939	0.04229482	0.0606739	1.96172044	0.17497664	0.00301145	304.315784	0.00906763	0.00223745	0.00205831	0.01198714
SAN DIEGO	2018	LDT1	Aggregated	40	DSL	214.741899	0.19901407	0.22656429	1.1033513	1.28185339	0.00359984	380.791046	0.00924382	0.15812079	0.15128056	0.05985505
SAN DIEGO	2018	LDT1	Aggregated	45	GAS	283684.842	0.03878132	0.05559338	1.83341777	0.17209466	0.00302045	305.225291	0.00830146	0.00204673	0.0018829	0.01174864
SAN DIEGO	2018	LDT1	Aggregated	45	DSL	145.544668	0.19017246	0.21649871	1.12253699	1.33540773	0.00347086	367.14717	0.00883315	0.15123419	0.14469187	0.05771042
SAN DIEGO	2018	LDT1	Aggregated	50	GAS	203764.386	0.0372388	0.05333867	1.72634905	0.17340617	0.00310467	313.735302	0.00796013	0.00196711	0.00180969	0.01178535
SAN DIEGO	2018	LDT1	Aggregated	50	DSL	104.541433	0.19015323	0.21647681	1.20286352	1.38973764	0.00347663	367.757084	0.00883225	0.1513447	0.1447976	0.05780629
SAN DIEGO	2018	LDT1	Aggregated	55	GAS	163107.796	0.03758763	0.05381254	1.64770321	0.17636144	0.00323504	326.910456	0.00803297	0.00198689	0.00182792	0.01192261
SAN DIEGO	2018	LDT1	Aggregated	55	DSL	83.6825465	0.19896051	0.22650331	1.35768187	1.44284038	0.0036351	384.51999	0.00924134	0.15847138	0.15161598	0.06044119
SAN DIEGO	2018	LDT1	Aggregated	60	GAS	179391.484	0.0397276	0.05683491	1.58807735	0.18530514	0.0033638	339.921402	0.00848614	0.00211	0.00194122	0.01244713
SAN DIEGO	2018	LDT1	Aggregated	60	DSL	92.0369021	0.2179104	0.24807651	1.6149419	1.49765511	0.00393755	416.513864	0.01012152	0.1736403	0.1661287	0.06547018
SAN DIEGO	2018	LDT1	Aggregated	65	GAS	2364142.31	0.04403655	0.06293923	1.55347292	0.20125945	0.00346058	349.701781	0.00939938	0.00235723	0.00216871	0.01341653
SAN DIEGO	2018	LDT1	Aggregated	65	DSL	1212.92454	0.24979585	0.28437596	2.02383309	1.55428208	0.00442276	467.838803	0.01160254	0.19909849	0.19048558	0.07353774
SAN DIEGO	2018	LDT2	Aggregated	5	GAS	32067.3007	0.16569743	0.23867837	2.44564713	0.24821058	0.00889606	898.972025	0.03880568	0.01060987	0.0097583	0.01831643
SAN DIEGO	2018	LDT2	Aggregated	5	DSL	164.203041	0.26937036	0.30666024	2.13188204	0.17340977	0.00732804	775.158485	0.01251174	0.02856751	0.0273317	0.12184412
SAN DIEGO	2018	LDT2	Aggregated	10	GAS	88961.3567	0.10705422	0.1540623	2.18407409	0.21124187	0.00723269	730.8836	0.02494753	0.00672653	0.00618683	0.01566317
SAN DIEGO	2018	LDT2	Aggregated	10	DSL	455.533361	0.2001326	0.22783767	1.59167794	0.15123645	0.00616849	652.502465	0.00929578	0.02169677	0.02075818	0.1025643
SAN DIEGO	2018	LDT2	Aggregated	15	GAS	219979.455	0.07284831	0.10474118	1.9673961	0.18360035	0.00592351	598.588032	0.01689684	0.00449751	0.00413677	0.01365842
SAN DIEGO	2018	LDT2	Aggregated	15	DSL	1126.42145	0.10255445	0.11675142	0.79755786	0.11423364	0.0051147	541.032082	0.00476346	0.01680807	0.01608096	0.08504271
SAN DIEGO	2018	LDT2	Aggregated	20	GAS	714003.291	0.05208875	0.07481834	1.78074862	0.163598	0.00492505	497.690629	0.01202596	0.00317052	0.0029163	0.01219423
SAN DIEGO	2018	LDT2	Aggregated	20	DSL	3656.1079	0.0453467	0.05162421	0.33348105	0.08921415	0.00420212	444.49916	0.00210627	0.01336725	0.01278898	0.06986908
SAN DIEGO	2018	LDT2	Aggregated	25	GAS	2169192.43	0.03916996	0.0562053	1.62130417	0.14886929	0.00420943	425.37527	0.00900469	0.00235584	0.002167	0.01110549
SAN DIEGO	2018	LDT2	Aggregated	25	DSL	11107.514	0.02942626	0.03349984	0.21077165	0.07862688	0.00352332	372.696523	0.00136679	0.01097268	0.01049801	0.0585827
SAN DIEGO	2018	LDT2	Aggregated	30	GAS	1840582.33	0.03099085	0.04442833	1.48578259	0.13765251	0.00373595	377.528794	0.0070989	0.00184464	0.00169683	0.01026711
SAN DIEGO	2018	LDT2	Aggregated	30	DSL	9424.84113	0.02293535	0.02611038	0.16374226	0.07388544	0.00304668	322.277019	0.0010653	0.00938811	0.00898198	0.05065746
SAN DIEGO	2018	LDT2	Aggregated	35	GAS	2095767.54	0.02575944	0.03689408	1.36844581	0.12994586	0.00346228	349.87288	0.00588199	0.00152177	0.00139986	0.00968222
SAN DIEGO	2018	LDT2	Aggregated	35	DSL	10731.5363	0.01882012	0.02142546	0.13437928	0.07135797	0					

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2018	LDT2	Aggregated	40	GAS	1325091.42	0.02249355	0.03218724	1.26695589	0.12496996	0.00334977	338.503925	0.00512304	0.00132251	0.0012166	0.00929437
SAN DIEGO	2018	LDT2	Aggregated	40	DSL	6785.2309	0.01609747	0.0183259	0.11522539	0.07010215	0.00256639	271.472512	0.0007477	0.00761877	0.00728918	0.0426717
SAN DIEGO	2018	LDT2	Aggregated	45	GAS	898101.351	0.02064653	0.02952031	1.18065335	0.12220188	0.00336076	339.61443	0.00469388	0.0012107	0.00111377	0.0090651
SAN DIEGO	2018	LDT2	Aggregated	45	DSL	4598.79595	0.01428133	0.01625834	0.10273429	0.06964014	0.00247444	261.745556	0.00066334	0.00719222	0.00688109	0.04114276
SAN DIEGO	2018	LDT2	Aggregated	50	GAS	645085.825	0.01988899	0.02841255	1.10505677	0.12211505	0.00345576	349.214148	0.00451508	0.00116755	0.00107409	0.00902835
SAN DIEGO	2018	LDT2	Aggregated	50	DSL	3303.21079	0.01311837	0.01493439	0.0951802	0.06972989	0.00247855	262.180375	0.00060932	0.0069996	0.0066968	0.0412111
SAN DIEGO	2018	LDT2	Aggregated	55	GAS	516373.49	0.02018584	0.02882424	1.0454598	0.12288225	0.00360147	363.93873	0.00458314	0.00118618	0.00109125	0.00904794
SAN DIEGO	2018	LDT2	Aggregated	55	DSL	2644.12954	0.01248345	0.01421158	0.09187811	0.07011849	0.00259152	274.13094	0.00057983	0.00703112	0.00672695	0.04308957
SAN DIEGO	2018	LDT2	Aggregated	60	GAS	567925.073	0.02148971	0.03066573	0.99424193	0.12737302	0.00374558	378.501642	0.00487891	0.00126979	0.00116819	0.00933144
SAN DIEGO	2018	LDT2	Aggregated	60	DSL	2908.10333	0.01267719	0.01443214	0.09578988	0.07142871	0.00280715	296.939925	0.00058883	0.00737636	0.00705726	0.04667482
SAN DIEGO	2018	LDT2	Aggregated	65	GAS	7484500.72	0.02402822	0.03425822	0.95421631	0.13603865	0.00385402	389.459418	0.0054538	0.00143256	0.00131794	0.0099053
SAN DIEGO	2018	LDT2	Aggregated	65	DSL	38324.9525	0.013638	0.01552596	0.10704487	0.07345595	0.00315306	333.530361	0.00063346	0.00807907	0.00772957	0.05242633
SAN DIEGO	2018	LHD1	Aggregated	5	GAS	39062.5955	0.29921953	0.42498832	3.49712819	0.51626441	0.01938657	1959.06865	0.05879737	0.00916467	0.00843633	0.03084243
SAN DIEGO	2018	LHD1	Aggregated	5	DSL	20120.7891	0.76609446	0.8721476	2.96406298	2.78145964	0.01206764	1276.51308	0.03558362	0.09930368	0.09500785	0.20065008
SAN DIEGO	2018	LHD1	Aggregated	10	GAS	101858.877	0.19782133	0.28064007	2.71937386	0.45621921	0.01573388	1589.95364	0.03852513	0.00584129	0.00537763	0.02707813
SAN DIEGO	2018	LHD1	Aggregated	10	DSL	66910.7943	0.55163775	0.6280029	2.15149566	2.86326937	0.01014473	1073.10842	0.02562252	0.07140477	0.06831583	0.1686777
SAN DIEGO	2018	LHD1	Aggregated	15	GAS	231946.397	0.13748884	0.1947743	2.20922981	0.41209146	0.01286569	1300.11443	0.02654019	0.0039277	0.00361632	0.02429103
SAN DIEGO	2018	LHD1	Aggregated	15	DSL	144909.612	0.33902521	0.38595767	1.37466008	2.92082118	0.00662536	700.829597	0.01574707	0.05327718	0.05097243	0.11016065
SAN DIEGO	2018	LHD1	Aggregated	20	GAS	268012.261	0.1004825	0.14213436	1.86257149	0.3797398	0.01069406	1080.66528	0.01923382	0.0027856	0.00256503	0.02222633
SAN DIEGO	2018	LHD1	Aggregated	20	DSL	158867.74	0.21073304	0.23990555	0.90685693	3.00169392	0.00564712	597.351401	0.00978815	0.0413106	0.03952352	0.09389532
SAN DIEGO	2018	LHD1	Aggregated	25	GAS	206452.068	0.07715601	0.10893746	1.62074784	0.35809581	0.00914067	923.691057	0.01464584	0.00208335	0.00191857	0.02081156
SAN DIEGO	2018	LHD1	Aggregated	25	DSL	170030.865	0.1583001	0.18021414	0.7129526	3.1243881	0.00500846	529.793802	0.00735274	0.03334318	0.03190077	0.08327621
SAN DIEGO	2018	LHD1	Aggregated	30	GAS	182571.384	0.06251195	0.08818287	1.4544439	0.33876849	0.00811074	819.613974	0.01179067	0.00164275	0.00151296	0.01955743
SAN DIEGO	2018	LHD1	Aggregated	30	DSL	143527.592	0.12977704	0.14774253	0.61065902	3.24915206	0.00454822	481.110048	0.0060279	0.02812107	0.02690457	0.0756238
SAN DIEGO	2018	LHD1	Aggregated	35	GAS	68220.2941	0.05300055	0.07461438	1.33667996	0.33096713	0.00751814	759.729733	0.00992284	0.00136542	0.00125764	0.01898571
SAN DIEGO	2018	LHD1	Aggregated	35	DSL	75745.0822	0.11160004	0.12704922	0.55209343	3.39581012	0.00454822	481.110048	0.00518361	0.02471703	0.02364778	0.0756238
SAN DIEGO	2018	LHD1	Aggregated	40	GAS	20137.0751	0.04704841	0.06603225	1.25888736	0.33194141	0.0072771	735.372234	0.00873568	0.00119606	0.00110174	0.01893086
SAN DIEGO	2018	LHD1	Aggregated	40	DSL	41581.5742	0.10040745	0.1143072	0.52596267	3.54378078	0.00442371	467.939065	0.00466373	0.02260874	0.02163069	0.0735535
SAN DIEGO	2018	LHD1	Aggregated	45	GAS	24790.5116	0.04429479	0.0621613	1.22806721	0.32492405	0.00730218	737.905731	0.00819652	0.00110397	0.00101698	0.01844723
SAN DIEGO	2018	LHD1	Aggregated	45	DSL	44880.1939	0.09442353	0.10749491	0.52779229	3.67965349	0.00431498	456.437737	0.00438579	0.02150656	0.02057619	0.07174566
SAN DIEGO	2018	LHD1	Aggregated	50	GAS	183049.683	0.04403392	0.06190861	1.24092812	0.31604723	0.00751627	759.540378	0.0081476	0.00107353	0.00098899	0.01788527
SAN DIEGO	2018	LHD1	Aggregated	50	DSL	173296.649	0.09280712	0.10565474	0.55803659	3.81743777	0.00452368	478.513959	0.00431071	0.02127681	0.02035638	0.07521573
SAN DIEGO	2018	LHD1	Aggregated	55	GAS	50347.307	0.04522441	0.06336172	1.29007222	0.33245448	0.00782509	790.74822	0.00830941	0.00109965	0.0010131	0.01875821
SAN DIEGO	2018	LHD1	Aggregated	55	DSL	104360.817	0.09538672	0.10859143	0.6220104	3.97872797	0.00472708	500.030106	0.00443053	0.02190894	0.02096117	0.07859777
SAN DIEGO	2018	LHD2	Aggregated	5	GAS	5523.70828	0.21471924	0.31331781	2.36738183	0.47850199	0.02219904	2243.27632	0.04561105	0.00768824	0.00706905	0.03018052
SAN DIEGO	2018	LHD2	Aggregated	5	DSL	6802.4623	0.74663815	0.84999789	2.89014381	2.23752936	0.01270233	1343.65079	0.03467991	0.08119424	0.07768181	0.21120319
SAN DIEGO	2018	LHD2	Aggregated	10	GAS	14403.5161	0.14049697	0.20501284	1.88460934	0.42065321	0.01801872	1820.84288	0.02963427	0.00488059	0.00448752	0.02638702
SAN DIEGO	2018	LHD2	Aggregated	10	DSL	22621.2876	0.54261603	0.61773227	2.11274655	2.27240125	0.01128896	1194.14444	0.02520348	0.05950696	0.05693272	0.18770288
SAN DIEGO	2018	LHD2	Aggregated	15	GAS	32798.7483	0.0966116	0.14097542	1.55842728	0.3778674	0.01473493	1489.00654	0.0202424	0.00326867	0.00300542	0.0235655
SAN DIEGO	2018	LHD2	Aggregated	15	DSL	48991.2283	0.31694962	0.36082607	1.2759558	2.27272962	0.00751472	794.906045	0.0147217	0.04500258	0.04305579	0.12494816
SAN DIEGO	2018	LHD2	Aggregated	20	GAS	37898.699	0.06986949	0.1019534	1.33054999	0.34622387	0.01224808	1237.70394	0.01454874	0.0023092	0.00212323	0.02146255
SAN DIEGO	2018	LHD2	Aggregated	20	DSL	53710.2104	0.18213245	0.20734569	0.77681186	2.30354915	0.0064095	677.996378	0.0084597	0.03521993	0.03369633	0.10657159
SAN DIEGO	2018	LHD2	Aggregated	25	GAS	29193.6822	0.05305304	0.07741486	1.16512903	0.32462021	0.01046902	1057.92448	0.01098468	0.0017206	0.00158203	0.02000215
SAN DIEGO	2018	LHD2	Aggregated	25	DSL	57484.2541	0.1330655	0.15148622	0.59338984	2.38175189	0.00571187	604.200854	0.00618064	0.02860575	0.02736828	0.09497196
SAN DIEGO	2018	LHD2	Aggregated	30	GAS	25816.7961	0.04266109	0.06225096	1.05118228	0.30546698	0.0092895	938.730165	0.00878673	0.00135195	0.00124307	0.01871278
SAN DIEGO	2018	LHD2	Aggregated	30	DSL	48523.9933	0.10812799	0.12309653	0.50259316	2.4677929	0.0051512	544.892794	0.00502234	0.02425591	0.02320661	0.08564956
SAN DIEGO	2018	LHD2	Aggregated	35	GAS	9646.79891	0.03578275	0.05221411	0.96233616	0.2968718	0.00861087	870.152565	0.0073368	0.00112006	0.00102986	0.01808675
SAN DIEGO	2018	LHD2	Aggregated	35	DSL	25607.995	0.09225316	0.10502409	0.44978837	2.57277924	0.0051512	544.892794	0.00428498	0.02138807	0.02046283	0.08564956
SAN DIEGO	2018	LHD2	Aggregated	40	GAS	2847.51506	0.03133074	0.04571774	0.89482651	0.29625554	0.00833491	842.266951	0.00639978	0.00097827	0.00089948	0.01795989
SAN DIEGO	2018	LHD2	Aggregated	40	DSL	14057.9522	0.08232557	0.09372219	0.42418811	2.68008149	0.00496305	524.99072	0.00382387	0.01957024	0.01872364	0.08252123
SAN DIEGO	2018	LHD2	Aggregated	45	GAS	3505.54162	0.02940075	0.0429015	0.86694781	0.28895198	0.00836383	845.188661	0.0059843	0.00090065	0.00082811	0.01744552
SAN DIEGO	2018	LHD2	Aggregated	45	DSL	15173.1538	0.07672643	0.08734794	0.42131895	2.77908558	0.00477071	504.645031	0.0035638	0.01856255	0.01775954	0.07932317
SAN DIEGO	2018	LHD2	Aggregated	50	GAS	25884.4308	0.02932788	0.04279517	0.8719507	0.28042853	0.00860917	869.981461	0.0059507	0.00087392	0.00080354	0.01687807
SAN DIEGO	2018	LHD2	Aggregated	50	DSL	58588.3545	0.07467026	0.08500712	0.44093213	2.88011292	0.00494642	523.231957	0.00346829	0.0182516	0.01746205	0.08224478
SAN DIEGO	2018	LHD2	Aggregated	55	GAS	7119.44082	0.02972265	0.04337122	0.87888171	0.29415747	0.00896249	905.684816	0.00601972	0.00089367	0.00082169	0.01766258
SAN DIEGO	2018	LHD2	Aggregated	55	DSL	35282.4394	0.07593745	0.08644974	0.4866908	2.99926277	0.00511979	541.570277	0.00352715	0.01862219	0.0178166	0.08512731
SAN DIEGO	2018	MCY	Aggregated	5	GAS	1186.33778	12.8407224	15.7359109	53.4556503	1.51516539	0.00535212	540.846904	1.86869965	0.00914211	0.00856974	0.08735417
SAN DIEGO	2018	MCY	Aggregated	10	GAS	3291.14756	8.40058417	10.2836933	40.							

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2018	MCY	Aggregated	15	GAS	8138.19476	5.79125695	7.08236915	31.5466991	1.27746463	0.00339234	342.805678	0.8403664	0.00416406	0.00390568	0.07354289
SAN DIEGO	2018	MCY	Aggregated	20	GAS	26414.7297	4.21669326	5.15152318	26.0899845	1.20784984	0.00279608	282.552172	0.61101352	0.00303756	0.00284983	0.06948671
SAN DIEGO	2018	MCY	Aggregated	25	GAS	80249.8144	3.23504486	3.94846595	22.4693149	1.1605612	0.0023792	240.424503	0.46814375	0.00233211	0.00218849	0.06672277
SAN DIEGO	2018	MCY	Aggregated	30	GAS	68092.8018	2.60685956	3.17918717	19.9890547	1.12756531	0.00210239	212.452167	0.37681468	0.00188358	0.00176796	0.06478782
SAN DIEGO	2018	MCY	Aggregated	35	GAS	77533.4424	2.21202554	2.69566076	18.4343244	1.11038319	0.00193999	196.041849	0.31941005	0.00159974	0.00150183	0.06376773
SAN DIEGO	2018	MCY	Aggregated	40	GAS	49022.0871	1.97357419	2.40351692	17.5865246	1.10524151	0.00186787	188.753714	0.2847205	0.00142819	0.00134099	0.06344482
SAN DIEGO	2018	MCY	Aggregated	45	GAS	33225.4833	1.84829293	2.24979237	17.3454615	1.10906119	0.00186495	188.458656	0.26645587	0.00133984	0.0012582	0.06364183
SAN DIEGO	2018	MCY	Aggregated	50	GAS	23865.1108	1.8228299	2.21774208	17.842107	1.12539052	0.00191665	193.682951	0.2626104	0.00132048	0.00124017	0.06456163
SAN DIEGO	2018	MCY	Aggregated	55	GAS	19103.3659	1.87333272	2.27882956	18.8929137	1.14042057	0.00199951	202.0566	0.26982595	0.00136689	0.00128386	0.06541291
SAN DIEGO	2018	MCY	Aggregated	60	GAS	21010.5296	2.036081	2.47619023	21.2308403	1.17386373	0.00210837	213.056835	0.29316555	0.00148587	0.0013957	0.06732505
SAN DIEGO	2018	MCY	Aggregated	65	GAS	276890.969	2.33935916	2.84409934	25.4674398	1.22657391	0.00223767	226.123311	0.33668151	0.001696	0.00159313	0.07034726
SAN DIEGO	2018	MDV	Aggregated	5	GAS	20938.9653	0.21742469	0.30576542	2.91417579	0.28595174	0.01065536	1076.75453	0.04789674	0.01098197	0.01010656	0.02091253
SAN DIEGO	2018	MDV	Aggregated	5	DSL	447.667637	0.20702789	0.23568749	3.46365875	0.17963992	0.00906825	959.237619	0.00961605	0.02130262	0.02038108	0.1507788
SAN DIEGO	2018	MDV	Aggregated	10	GAS	58089.0414	0.14121028	0.19809346	2.52691455	0.24428204	0.00866033	875.150869	0.03086535	0.00697724	0.00642161	0.01788669
SAN DIEGO	2018	MDV	Aggregated	10	DSL	1241.92306	0.15394052	0.17525104	2.58816168	0.15836717	0.00770115	814.626234	0.00715024	0.01669858	0.01597621	0.1280479
SAN DIEGO	2018	MDV	Aggregated	15	GAS	143639.847	0.09659143	0.1351777	2.23179926	0.21328619	0.00709087	716.552537	0.020956	0.00467508	0.00430315	0.01561049
SAN DIEGO	2018	MDV	Aggregated	15	DSL	3070.96889	0.07847893	0.08934304	1.28640992	0.12255131	0.00653109	690.857751	0.0036452	0.01319979	0.01262877	0.10859322
SAN DIEGO	2018	MDV	Aggregated	20	GAS	466222.283	0.06948874	0.09699653	1.99577943	0.19102264	0.00589519	595.725871	0.01496027	0.00330266	0.00304017	0.01395604
SAN DIEGO	2018	MDV	Aggregated	20	DSL	9967.66673	0.03426378	0.03900704	0.52616554	0.09851176	0.00542404	573.754627	0.00159149	0.01063476	0.0101747	0.09018624
SAN DIEGO	2018	MDV	Aggregated	25	GAS	1416416.22	0.05259393	0.07322426	1.80441165	0.17477399	0.00503852	509.156403	0.0112394	0.00245911	0.00226385	0.01273251
SAN DIEGO	2018	MDV	Aggregated	25	DSL	30282.4755	0.02207939	0.02513591	0.32762218	0.08864849	0.00458659	485.168575	0.00102555	0.00880305	0.00842224	0.07626174
SAN DIEGO	2018	MDV	Aggregated	30	GAS	1201843.89	0.04186368	0.05815124	1.64785339	0.16250691	0.00447158	451.866066	0.00888925	0.00192936	0.0017763	0.01179563
SAN DIEGO	2018	MDV	Aggregated	30	DSL	25694.9953	0.01716308	0.01953903	0.25251609	0.08452801	0.00396138	419.034558	0.00079719	0.00758445	0.00725635	0.0658664
SAN DIEGO	2018	MDV	Aggregated	35	GAS	1368472.02	0.03502433	0.04853905	1.51806895	0.15423638	0.00414412	418.775606	0.0073921	0.0015947	0.0014683	0.01114847
SAN DIEGO	2018	MDV	Aggregated	35	DSL	29257.4455	0.01404682	0.01599137	0.20543623	0.08259089	0.00359441	380.215915	0.00065245	0.0067503	0.00645828	0.05976465
SAN DIEGO	2018	MDV	Aggregated	40	GAS	865244.113	0.03078787	0.04257446	1.41071386	0.14906678	0.00400975	405.196534	0.00646287	0.00138837	0.00127841	0.01072634
SAN DIEGO	2018	MDV	Aggregated	40	DSL	18498.6117	0.01197909	0.0136374	0.17429936	0.08190824	0.00336207	355.63969	0.00055641	0.00618252	0.00591507	0.05590161
SAN DIEGO	2018	MDV	Aggregated	45	GAS	586432.678	0.02843702	0.03924863	1.3243273	0.14639364	0.00402307	406.542621	0.00594337	0.00127308	0.00117233	0.01048526
SAN DIEGO	2018	MDV	Aggregated	45	DSL	12537.7223	0.01058916	0.01205506	0.15332771	0.08200845	0.00323551	342.251846	0.00049185	0.00581522	0.00556366	0.05379722
SAN DIEGO	2018	MDV	Aggregated	50	GAS	421221.287	0.02758576	0.03799753	1.25549987	0.14678947	0.00413747	418.103288	0.00574112	0.0012295	0.00113226	0.01046493
SAN DIEGO	2018	MDV	Aggregated	50	DSL	9005.56144	0.0096832	0.01102368	0.13961675	0.08265721	0.00325172	343.96686	0.00044977	0.00561469	0.0053718	0.0540668
SAN DIEGO	2018	MDV	Aggregated	55	GAS	337176.075	0.02811169	0.03868597	1.20844861	0.14808245	0.00431151	435.690678	0.00584284	0.0012507	0.00115183	0.01050864
SAN DIEGO	2018	MDV	Aggregated	55	DSL	7208.70466	0.00916368	0.01043225	0.13183236	0.08358607	0.0034317	363.005198	0.00042564	0.00557059	0.00532961	0.05705936
SAN DIEGO	2018	MDV	Aggregated	60	GAS	370837.68	0.03010957	0.04137499	1.18199596	0.15369561	0.00448471	453.19242	0.00624376	0.00134022	0.00123433	0.01085743
SAN DIEGO	2018	MDV	Aggregated	60	DSL	7928.37782	0.00926112	0.01054317	0.13446107	0.08543548	0.00371585	393.061584	0.00043016	0.00576459	0.00551522	0.06178381
SAN DIEGO	2018	MDV	Aggregated	65	GAS	4887149.75	0.0339293	0.04653483	1.18525776	0.16416968	0.00461615	466.475337	0.00701369	0.00151314	0.00139362	0.011544
SAN DIEGO	2018	MDV	Aggregated	65	DSL	104485.525	0.00991963	0.01129284	0.14698114	0.08800602	0.00417237	441.353066	0.00046075	0.00621778	0.0059488	0.06937456
SAN DIEGO	2018	MH	Aggregated	5	GAS	964.050953	0.6393422	0.91452379	9.52797638	1.05083351	0.04114208	4157.52499	0.13531583	0.01154459	0.01062621	0.05913416
SAN DIEGO	2018	MH	Aggregated	5	DSL	294.05167	1.08054906	1.23013326	2.35646562	15.4187313	0.01997537	2112.99125	0.05018944	0.35734797	0.34188925	0.3321328
SAN DIEGO	2018	MH	Aggregated	10	GAS	4846.29264	0.42139059	0.60208116	7.25828513	0.93837362	0.03338675	3373.82717	0.08836368	0.0074124	0.00682336	0.05232936
SAN DIEGO	2018	MH	Aggregated	10	DSL	1463.67844	0.81669612	0.92975423	1.90353408	12.8692491	0.01813772	1918.60513	0.03793397	0.30481081	0.29162483	0.30157801
SAN DIEGO	2018	MH	Aggregated	15	GAS	6121.69856	0.29324391	0.41865883	5.80837498	0.84824447	0.02729903	2758.64563	0.06098174	0.00502014	0.00462161	0.04686259
SAN DIEGO	2018	MH	Aggregated	15	DSL	1975.45787	0.41601121	0.4736011	1.19252033	8.95145735	0.01489264	1575.34113	0.01932293	0.21853845	0.20908457	0.24762169
SAN DIEGO	2018	MH	Aggregated	20	GAS	6349.70481	0.21426827	0.3056023	4.83497561	0.78457027	0.02269039	2292.92931	0.04420246	0.00358523	0.00330089	0.04293299
SAN DIEGO	2018	MH	Aggregated	20	DSL	2095.04486	0.18468759	0.21025454	0.74130568	6.63802584	0.01222118	1292.75475	0.00857839	0.15733535	0.15052909	0.20320304
SAN DIEGO	2018	MH	Aggregated	25	GAS	7075.03926	0.16471799	0.23471474	4.17427583	0.73743006	0.01939416	1959.83497	0.03373301	0.00269916	0.00248529	0.03997717
SAN DIEGO	2018	MH	Aggregated	25	DSL	2181.90614	0.12925515	0.1471484	0.5813042	5.82385163	0.0109619	1159.54847	0.00600365	0.13175475	0.1260551	0.18226487
SAN DIEGO	2018	MH	Aggregated	30	GAS	7999.33969	0.13333764	0.18986589	3.72915906	0.70288935	0.01720876	1738.99407	0.02713179	0.00214149	0.00197195	0.03776876
SAN DIEGO	2018	MH	Aggregated	30	DSL	2623.56536	0.10491342	0.11943695	0.49481775	5.37815024	0.0102894	1088.41158	0.00487303	0.11831168	0.11319357	0.17108314
SAN DIEGO	2018	MH	Aggregated	35	GAS	9941.96561	0.11318797	0.1610242	3.42996105	0.6824737	0.01595138	1611.93296	0.02289318	0.00179002	0.00164841	0.03637156
SAN DIEGO	2018	MH	Aggregated	35	DSL	3093.5291	0.08664413	0.09863858	0.42734296	5.05220593	0.00973131	1029.37678	0.00402445	0.11067331	0.10588563	0.16180369
SAN DIEGO	2018	MH	Aggregated	40	GAS	12376.7224	0.10096238	0.14350484	3.25433345	0.67195533	0.01544012	1560.2688	0.02031201	0.00157591	0.00145133	0.03555204
SAN DIEGO	2018	MH	Aggregated	40	DSL	3840.1348	0.07345122	0.08361933	0.37606777	4.8161446	0.00928763	982.444067	0.00341167	0.10876118	0.10405622	0.15442653
SAN DIEGO	2018	MH	Aggregated	45	GAS	11286.725	0.09495296	0.13492722	3.20021428	0.66388739	0.01549345	1565.65772	0.01902879	0.00146095	0.00134553	0.03491894
SAN DIEGO	2018	MH	Aggregated	45	DSL	3144.56121	0.06485272	0.07383051	0.33963144	4.6478151	0.00895835	947.613448	0.00301228	0.11253099	0.10766295	0.14895164
SAN DIEGO	2018	MH	Aggregated	50	GAS	10984.303	0.09347346	0.13272777	3.25363579	0.67067403	0.01594779	1611.56981	0.01866068	0.00142584	0.00131325	0.03510898
SAN DIEGO	2018	MH	Aggregated	50	DSL	3519.27537	0.06058965	0.06897729	0.31730284	4.55751864	0.00874349	924.884921	0.00281427	0.12195562	0.11667988	0.14537903
SAN DIEGO	2018	MH	Aggregated	55	GAS	14366.4679	0.09635295	0.13667246	3.4380732							

Region	Calendar Year	Vehicle Categ	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2018	MH	Aggregated	55	DSL	5157.17914	0.06051158	0.06888841	0.30865724	4.52835627	0.00864303	914.258485	0.00281065	0.13701747	0.13109015	0.1437087
SAN DIEGO	2018	MH	Aggregated	60	GAS	16578.2484	0.10452604	0.14817992	3.81363116	0.70819558	0.01728143	1746.33817	0.02074497	0.00158359	0.00145862	0.03688203
SAN DIEGO	2018	MH	Aggregated	60	DSL	6197.21498	0.06493188	0.07392063	0.31457941	4.57024396	0.00865698	915.734139	0.00301596	0.1578211	0.15099383	0.14394065
SAN DIEGO	2018	MH	Aggregated	65	GAS	2590.56117	0.12009106	0.17038555	4.48916966	0.72295732	0.01781881	1800.64194	0.0238357	0.00180165	0.0016595	0.03766154
SAN DIEGO	2018	MH	Aggregated	65	DSL	975.265437	0.07367552	0.08387468	0.33457516	4.66985109	0.00878534	929.311886	0.00342209	0.18433531	0.17636105	0.14607489
SAN DIEGO	2018	Motor Coach	Aggregated	5	DSL	185.672993	3.65156737	4.15703149	6.20710777	19.3076243	0.03584739	3794.37673	0.16960585	0.51684583	0.49448731	0.59642318
SAN DIEGO	2018	Motor Coach	Aggregated	10	DSL	422.179833	2.76701138	3.15003183	4.92727426	15.5566378	0.03054053	3232.65562	0.12852051	0.42740849	0.40891899	0.50812845
SAN DIEGO	2018	Motor Coach	Aggregated	15	DSL	394.808938	1.4561577	1.6577247	3.32009304	11.0413104	0.02450675	2593.99198	0.06763475	0.28477218	0.27245306	0.40773942
SAN DIEGO	2018	Motor Coach	Aggregated	20	DSL	576.819786	0.70813137	0.80615366	2.31454427	8.68513761	0.02082821	2204.62529	0.03289087	0.18729161	0.17918945	0.34653639
SAN DIEGO	2018	Motor Coach	Aggregated	25	DSL	507.339583	0.50888222	0.57932367	1.83723864	7.62097764	0.01839518	1947.09429	0.02363626	0.14878049	0.14234431	0.30605611
SAN DIEGO	2018	Motor Coach	Aggregated	30	DSL	280.412134	0.40161274	0.45720553	1.52692041	6.82853465	0.01654748	1751.51874	0.01865387	0.12789529	0.1223626	0.27531435
SAN DIEGO	2018	Motor Coach	Aggregated	35	DSL	374.885235	0.31970278	0.36395728	1.2783566	6.20792116	0.01511246	1599.62478	0.01484937	0.11469232	0.10973078	0.25143874
SAN DIEGO	2018	Motor Coach	Aggregated	40	DSL	347.010752	0.26155795	0.29776381	1.08735293	5.75720493	0.01407477	1489.78728	0.01214869	0.10917861	0.10445559	0.23417381
SAN DIEGO	2018	Motor Coach	Aggregated	45	DSL	462.266039	0.22573286	0.25697968	0.95118931	5.47797615	0.01342541	1421.05335	0.01048471	0.11144718	0.10662603	0.2233698
SAN DIEGO	2018	Motor Coach	Aggregated	50	DSL	680.403208	0.21082259	0.24000548	0.86832378	5.36952017	0.01315875	1392.82869	0.00979216	0.12167051	0.1164071	0.21893327
SAN DIEGO	2018	Motor Coach	Aggregated	55	DSL	1633.45017	0.21538277	0.24519689	0.83817442	5.42558575	0.01327119	1404.73014	0.01000397	0.1400972	0.13403666	0.22080402
SAN DIEGO	2018	Motor Coach	Aggregated	60	DSL	5960.53321	0.22714867	0.25859147	0.84359867	5.60224763	0.0137758	1458.14181	0.01055047	0.15344558	0.14680759	0.22919959
SAN DIEGO	2018	Motor Coach	Aggregated	65	DSL	10920.5459	0.22982704	0.26164059	0.85911949	5.88076728	0.01464029	1549.64661	0.01067487	0.1567858	0.15000332	0.24358287
SAN DIEGO	2018	Motor Coach	Aggregated	70	DSL	134.207797	0.23144783	0.26348574	0.87438156	5.86858909	0.01464029	1549.64661	0.01075015	0.1567858	0.15000332	0.24358287
SAN DIEGO	2018	Motor Coach	Aggregated	75	DSL	0.04252295	0.23346809	0.26578565	0.89529035	5.87061177	0.01464029	1549.64661	0.01084399	0.1567858	0.15000332	0.24358287
SAN DIEGO	2018	Motor Coach	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	Motor Coach	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	Motor Coach	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	OBUS	Aggregated	5	GAS	622.698458	0.75181915	1.09078646	6.41656347	1.5644573	0.0410149	4144.67323	0.15273482	0.00591947	0.00544642	0.07019148
SAN DIEGO	2018	OBUS	Aggregated	10	GAS	3130.31063	0.47886213	0.69439226	5.54143174	1.36810508	0.03329472	3364.52664	0.09700227	0.00375598	0.00345605	0.06126108
SAN DIEGO	2018	OBUS	Aggregated	15	GAS	3954.11906	0.32253223	0.46749132	4.89341609	1.2099647	0.02723066	2751.73628	0.06515517	0.00251431	0.00231368	0.05406529
SAN DIEGO	2018	OBUS	Aggregated	20	GAS	4101.39254	0.22850315	0.33102815	4.37653956	1.09412695	0.02263786	2287.62019	0.04603079	0.00177545	0.00163389	0.04878027
SAN DIEGO	2018	OBUS	Aggregated	25	GAS	4569.89957	0.17069418	0.24715562	3.96023156	1.00553529	0.01935177	1955.55147	0.03429264	0.00132232	0.00121696	0.04472871
SAN DIEGO	2018	OBUS	Aggregated	30	GAS	5166.92242	0.13459268	0.19479692	3.62306206	0.93804415	0.01717228	1735.30805	0.02697227	0.00103857	0.00095587	0.04163338
SAN DIEGO	2018	OBUS	Aggregated	35	GAS	6421.70067	0.11158645	0.16141718	3.33689148	0.892546	0.01591753	1608.51212	0.02230715	0.00086009	0.00079165	0.03952951
SAN DIEGO	2018	OBUS	Aggregated	40	GAS	7994.35538	0.09748479	0.1409491	3.10056796	0.86303589	0.01540627	1556.84771	0.01944436	0.00075095	0.00069123	0.03814833
SAN DIEGO	2018	OBUS	Aggregated	45	GAS	7290.3058	0.09007937	0.13020827	2.91912246	0.84016867	0.01545743	1562.01722	0.01793617	0.00069115	0.00063621	0.03707653
SAN DIEGO	2018	OBUS	Aggregated	50	GAS	7094.96582	0.08737478	0.12624794	2.77106227	0.83858744	0.01590763	1607.51129	0.01736784	0.00067047	0.00061719	0.03695758
SAN DIEGO	2018	OBUS	Aggregated	55	GAS	9279.56906	0.08902498	0.12856837	2.66272844	0.85289779	0.0165578	1673.2127	0.01766761	0.00068547	0.00063102	0.03755248
SAN DIEGO	2018	OBUS	Aggregated	60	GAS	10708.1993	0.09578737	0.13829346	2.61507093	0.87378428	0.01722724	1740.86179	0.01898941	0.00073853	0.00067988	0.03845316
SAN DIEGO	2018	OBUS	Aggregated	65	GAS	1673.29169	0.10953596	0.1581828	2.65722461	0.89274665	0.01775354	1794.04634	0.02171361	0.00083848	0.00077191	0.03928906
SAN DIEGO	2018	PTO	Aggregated	20	DSL	26322.2839	0.87391094	0.99488108	2.81899136	11.2834238	0.02060533	2181.03455	0.0405909	0.29939213	0.28644056	0.34282826
SAN DIEGO	2018	SBUS	Aggregated	5	GAS	82.9378108	1.51285721	2.2075577	10.6385881	3.18776797	0.01919504	1939.71348	0.30048182	0.01726015	0.01587007	0.13485132
SAN DIEGO	2018	SBUS	Aggregated	5	DSL	1003.31556	0.95798422	1.09059211	1.30105433	23.5096699	0.02316712	2452.1944	0.04449589	0.22086844	0.21131377	0.38545081
SAN DIEGO	2018	SBUS	Aggregated	10	GAS	290.692776	0.95316855	1.39086131	9.7011663	2.76173873	0.01558713	1575.12371	0.18931715	0.01086004	0.00998541	0.11682912
SAN DIEGO	2018	SBUS	Aggregated	10	DSL	2469.9009	0.72625943	0.82679108	1.06817102	19.0552026	0.02056458	2176.7205	0.03373287	0.18048233	0.17267474	0.34215015
SAN DIEGO	2018	SBUS	Aggregated	15	GAS	581.385552	0.63269054	0.92322056	8.85878984	2.4384662	0.01275517	1288.9463	0.12566421	0.00720864	0.00662808	0.1031538
SAN DIEGO	2018	SBUS	Aggregated	15	DSL	3172.50904	0.38147981	0.43428573	0.75216813	12.9187102	0.01677319	1775.41002	0.01771875	0.11568526	0.11068077	0.27906973
SAN DIEGO	2018	SBUS	Aggregated	20	GAS	789.136329	0.44310849	0.64658288	8.11255745	2.18705418	0.01061058	1072.22909	0.08800966	0.0050479	0.00464135	0.09251839
SAN DIEGO	2018	SBUS	Aggregated	20	DSL	4187.31516	0.18184044	0.2070115	0.53766615	9.91739162	0.01395961	1477.59721	0.00844602	0.07163528	0.06853637	0.23225771
SAN DIEGO	2018	SBUS	Aggregated	25	GAS	1245.70473	0.32726657	0.4775466	7.44656477	1.99486703	0.00907507	917.062236	0.06500128	0.00372909	0.00342876	0.08438834
SAN DIEGO	2018	SBUS	Aggregated	25	DSL	5385.2541	0.12852889	0.14632036	0.42562691	9.30644751	0.01246217	1319.09635	0.00596983	0.05444012	0.05208506	0.20734358
SAN DIEGO	2018	SBUS	Aggregated	30	GAS	1494.51816	0.25499749	0.37209174	6.85386928	1.84880525	0.00805488	813.969141	0.05064728	0.00290621	0.00267216	0.07820953
SAN DIEGO	2018	SBUS	Aggregated	30	DSL	6282.05756	0.10055749	0.11447705	0.35004126	8.99108978	0.01153253	1220.69603	0.00467064	0.04465945	0.0427275	0.19187642
SAN DIEGO	2018	SBUS	Aggregated	35	GAS	1533.93487	0.20937786	0.30552368	6.31875877	1.74527331	0.00746505	754.365085	0.04158637	0.0023894	0.00219696	0.07382985
SAN DIEGO	2018	SBUS	Aggregated	35	DSL	5353.63572	0.07945886	0.09045786	0.28854886	8.76470475	0.01078652	1141.7322	0.00369066	0.03778338	0.03614889	0.1794644
SAN DIEGO	2018	SBUS	Aggregated	40	GAS	1035.48713	0.18144469	0.26476367	5.84355872	1.67254257	0.00722125	729.728271	0.03603832	0.00207245	0.00190554	0.07075314
SAN DIEGO	2018	SBUS	Aggregated	40	DSL	3924.03892	0.06490705	0.07389173	0.24035108	8.62378394	0.01021725	1081.47561	0.00301476	0.03381111	0.03234845	0.16999291
SAN DIEGO	2018	SBUS	Aggregated	45	GAS	496.801801	0.16595188	0.24215659	5.42099038	1.62713106	0.00723916	731.537708	0.03296116	0.00189633	0.00174361	0.0688321
SAN DIEGO	2018	SBUS	Aggregated	45	DSL	3300.47616	0.05663035	0.06446934	0.20489824	8.5662735	0.00982067	1039.49852	0.00263033	0.03275636	0.03133933	0.16339469
SAN DIEGO	2018	SBUS	Aggregated	50	GAS	248.813432	0.16044739	0.23412445	5.05238979	1.60137883	0.0074431	752.14679	0.03186786	0.00183054	0.00168311	0.06774271
SAN DIEGO	2018	SBUS	Aggregated	50	DSL	5633.59277	0.05438893	0.06191766	0.1818338	8.59724568	0.00959431	1015.53901	0.00252622	0.03464602	0.03314725	0.15962859
SAN DIEGO	2018	SBUS	Aggregated	55	GAS	370.342894	0.16218321	0.23665736	4.68082222	1.63313833	0.00773969	782.117907	0.03221263	0.00186414	0.00171401	0.06908623

Region	Calendar Year	Vehicle Categ	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2018	SBUS	Aggregated	55	DSL	14271.8067	0.05795837	0.06598119	0.17095315	8.71014262	0.00953666	1009.43709	0.00269202	0.03951946	0.03780986	0.15866945
SAN DIEGO	2018	SBUS	Aggregated	60	GAS	206.113213	0.17453566	0.25468203	4.38673975	1.65917814	0.00804635	813.106308	0.03466606	0.00200269	0.0018414	0.07018778
SAN DIEGO	2018	SBUS	Aggregated	60	DSL	14081.1713	0.0622727	0.07089273	0.17028115	8.8124922	0.00963372	1019.71087	0.00289241	0.04329045	0.04141773	0.16028435
SAN DIEGO	2018	SBUS	Aggregated	65	DSL	5288.13039	0.06287455	0.07157789	0.17247025	8.89039825	0.00982203	1039.64246	0.00292036	0.04392765	0.04202736	0.16341732
SAN DIEGO	2018	SBUS	Aggregated	70	DSL	461.565298	0.06307461	0.07180564	0.17414954	8.90251574	0.00982203	1039.64246	0.00292965	0.04392765	0.04202736	0.16341732
SAN DIEGO	2018	SBUS	Aggregated	75	DSL	25.8610199	0.06332397	0.07208952	0.17645015	8.91135989	0.00982203	1039.64246	0.00294123	0.04392765	0.04202736	0.16341732
SAN DIEGO	2018	SBUS	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	SBUS	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	SBUS	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 Ag	Aggregated	5	DSL	2.34067177	8.50559032	9.68296712	9.66233875	25.7231683	0.02341359	2478.2834	0.39506264	1.86984138	1.78895287	0.38955164
SAN DIEGO	2018	T6 Ag	Aggregated	10	DSL	7.16608649	6.56215642	7.47051556	8.34494975	21.4038195	0.02088559	2210.69956	0.30479517	1.57160913	1.50362201	0.34749119
SAN DIEGO	2018	T6 Ag	Aggregated	15	DSL	6.85524366	3.54264368	4.03303016	6.21234472	15.1939713	0.01702195	1801.74024	0.16454662	1.08609302	1.03910912	0.28320848
SAN DIEGO	2018	T6 Ag	Aggregated	20	DSL	5.27683019	1.67936503	1.91182925	4.67311143	11.9534147	0.01407185	1489.47854	0.07800216	0.74761726	0.71527567	0.23412528
SAN DIEGO	2018	T6 Ag	Aggregated	25	DSL	5.38465787	1.20132616	1.36761839	3.86029756	11.0531301	0.01256108	1329.56574	0.05579849	0.61024118	0.58384241	0.20898922
SAN DIEGO	2018	T6 Ag	Aggregated	30	DSL	6.62238244	0.99563851	1.13345865	3.29016986	10.5190189	0.01165742	1233.9148	0.04624483	0.52981568	0.50689609	0.19395422
SAN DIEGO	2018	T6 Ag	Aggregated	35	DSL	8.76318391	0.83429115	0.94977696	2.8129682	10.1132537	0.01092478	1156.36675	0.03875066	0.47098903	0.45061426	0.18176475
SAN DIEGO	2018	T6 Ag	Aggregated	40	DSL	10.0675228	0.71718779	0.81646371	2.42850094	9.83421345	0.01036254	1096.85476	0.03331152	0.43376695	0.41500239	0.17241029
SAN DIEGO	2018	T6 Ag	Aggregated	45	DSL	12.4043789	0.64419554	0.73336758	2.13670328	9.6839058	0.00997033	1055.33961	0.02992121	0.41818031	0.40009001	0.16588469
SAN DIEGO	2018	T6 Ag	Aggregated	50	DSL	16.4352533	0.6151386	0.70028847	1.93762282	9.66342164	0.00974792	1031.79852	0.02857159	0.42428369	0.40592936	0.16218436
SAN DIEGO	2018	T6 Ag	Aggregated	55	DSL	44.8536867	0.62979372	0.71697221	1.83140889	9.76920219	0.00969522	1026.21988	0.02925229	0.4521547	0.43259469	0.16130747
SAN DIEGO	2018	T6 Ag	Aggregated	60	DSL	209.797949	0.65391062	0.74442747	1.81298128	9.89664494	0.00979089	1036.34643	0.03037245	0.47438392	0.45386228	0.16289923
SAN DIEGO	2018	T6 Ag	Aggregated	65	DSL	151.438309	0.65418293	0.74473747	1.81489234	9.95369514	0.00995623	1053.84761	0.0303851	0.47497927	0.45443187	0.16565017
SAN DIEGO	2018	T6 Ag	Aggregated	70	DSL	0.70555653	0.6541834	0.744738	1.81489628	9.95001521	0.00995623	1053.84761	0.03038512	0.47497927	0.45443187	0.16565017
SAN DIEGO	2018	T6 Ag	Aggregated	75	DSL	0.00597645	0.65418398	0.74473867	1.81490168	9.99030307	0.00995623	1053.84761	0.03038515	0.47497927	0.45443187	0.16565017
SAN DIEGO	2018	T6 Ag	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 Ag	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 Ag	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	5	DSL	128.019306	0.67473	0.76812874	1.52615428	7.3724293	0.02286346	2420.05337	0.03133946	0.09137431	0.0874215	0.38039869
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	10	DSL	290.718736	0.50710793	0.57730377	1.11863368	5.89189327	0.01916855	2028.95422	0.02355385	0.07861266	0.07521191	0.31892335
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	15	DSL	283.715647	0.27052509	0.30797223	0.68779172	4.27677556	0.01522761	1611.813	0.01256519	0.05795012	0.05544322	0.25335456
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	20	DSL	366.852359	0.13871619	0.15791782	0.45922614	3.41292798	0.01298176	1374.09425	0.00644301	0.04339082	0.04151375	0.21598848
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	25	DSL	315.372948	0.10358582	0.11792458	0.36628728	2.84894557	0.01139488	1206.12615	0.00481129	0.03730925	0.03569526	0.18958623
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	30	DSL	200.152303	0.08463864	0.09635465	0.30791267	2.38435359	0.01007015	1065.90616	0.00393125	0.03443205	0.03294253	0.16754561
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	35	DSL	287.778455	0.06976357	0.07942051	0.26221283	2.01647417	0.00904568	957.467946	0.00324034	0.03331663	0.03187537	0.15050063
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	40	DSL	281.444882	0.05861027	0.06672333	0.22833395	1.74570793	0.00831219	879.829109	0.0027223	0.03395186	0.03248312	0.13829688
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	45	DSL	359.547085	0.05091315	0.05796074	0.20565601	1.57060729	0.0078624	832.219279	0.00236478	0.03633394	0.03476215	0.13081328
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	50	DSL	480.763271	0.04646715	0.05289932	0.19373351	1.49147048	0.00769007	813.979139	0.00215828	0.04046424	0.03871378	0.12794619
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	55	DSL	1130.30459	0.04510995	0.05135425	0.19225186	1.50756958	0.00783225	829.028379	0.00209524	0.04634828	0.04434327	0.13031172
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	60	DSL	3928.52086	0.0460679	0.0524448	0.19744079	1.61401251	0.00825316	873.581458	0.00213973	0.05080909	0.04861111	0.13731484
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	65	DSL	7577.81205	0.04732749	0.05387874	0.20521581	1.80168334	0.00894204	946.497642	0.00219824	0.0527552	0.05047303	0.14877625
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	70	DSL	90.7634875	0.0483577	0.05505156	0.21386346	1.79797105	0.00894204	946.497642	0.00224609	0.0527552	0.05047303	0.14877625
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	75	DSL	0.03397242	0.04964182	0.05651343	0.2257106	1.79803934	0.00894204	946.497642	0.00230573	0.0527552	0.05047303	0.14877625
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 CAIRP heavy	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 CAIRP small	Aggregated	5	DSL	17.973408	1.24896763	1.42185457	2.32306196	8.50316888	0.02315674	2451.09589	0.05801131	0.15871448	0.15184856	0.38527814
SAN DIEGO	2018	T6 CAIRP small	Aggregated	10	DSL	40.8157692	0.93987316	1.06997405	1.76450394	6.89789342	0.01955513	2069.87211	0.04365467	0.13761596	0.13166275	0.32535507
SAN DIEGO	2018	T6 CAIRP small	Aggregated	15	DSL	39.8325631	0.4933241	0.56161193	1.08995529	5.03315075	0.01560155	1651.3943	0.02291363	0.10326245	0.09879537	0.25957619
SAN DIEGO	2018	T6 CAIRP small	Aggregated	20	DSL	51.504631	0.24658133	0.28071408	0.71297371	4.0049268	0.01327756	1405.40419	0.01145306	0.07875878	0.07535171	0.22090997
SAN DIEGO	2018	T6 CAIRP small	Aggregated	25	DSL	44.2771239	0.1852126	0.21085044	0.57623301	3.39825039	0.01168542	1236.87872	0.00860265	0.06837731	0.06541934	0.19442011
SAN DIEGO	2018	T6 CAIRP small	Aggregated	30	DSL	28.1005976	0.15274222	0.17388539	0.49847114	2.91912073	0.01043937	1104.98681	0.00709448	0.06359658	0.06084542	0.17368854
SAN DIEGO	2018	T6 CAIRP small	Aggregated	35	DSL	40.4029654	0.12691954	0.14448823	0.43872133	2.53849504	0.00947427	1002.83279	0.00589508	0.06197139	0.05929053	0.15763135
SAN DIEGO	2018	T6 CAIRP small	Aggregated	40	DSL	39.5137566	0.10723639	0.12208047	0.39575097	2.25668642	0.00878379	929.746676	0.00498085	0.06348206	0.06073585	0.14614323
SAN DIEGO	2018	T6 CAIRP small	Aggregated	45	DSL	50.4789993	0.09330894	0.10622512	0.36866326	2.0718434	0.00836421	885.335679	0.00433396	0.0681203	0.06517344	0.13916244
SAN DIEGO	2018	T6 CAIRP small	Aggregated	50	DSL	67.4972759	0.08484252	0.09658675	0.35681176	1.98439855	0.00821321	869.351976	0.00394072	0.07588554	0.07260277	0.13665002
SAN DIEGO	2018	T6 CAIRP small	Aggregated	55	DSL	158.690327	0.08160583	0.09290203	0.35973738	1.99340077	0.00832921	881.630524	0.00379038	0.0867831	0.0830289	0.13858004
SAN DIEGO	2018	T6 CAIRP small	Aggregated	60	DSL	551.548906	0.08240835	0.09381564	0.36851553	2.09163836	0.00872107	923.108476	0.00382765	0.09420761	0.09013223	0.1450998
SAN DIEGO	2018	T6 CAIRP small	Aggregated	65	DSL	1063.89506	0.08363337	0.09521023	0.37563465	2.26385792	0.00937103	991.905042	0.00388455	0.09603112	0.09187686	0.15591366

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2.5_RUNEX	N2O_RUNEX
SAN DIEGO	2018	T6 CAIRP sma	Aggregated	70	DSL	12.7428373	0.08454428	0.09624722	0.38328081	2.25919334	0.00937103	991.905042	0.00392686	0.09603112	0.09187686	0.15591366
SAN DIEGO	2018	T6 CAIRP sma	Aggregated	75	DSL	0.00476959	0.08567968	0.0975398	0.39375593	2.25927914	0.00937103	991.905042	0.0039796	0.09603112	0.09187686	0.15591366
SAN DIEGO	2018	T6 CAIRP sma	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 CAIRP sma	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 CAIRP sma	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 instate con	Aggregated	5	DSL	5470.6756	2.85610259	3.25145538	3.91796898	14.2601249	0.02313185	2448.46148	0.13265857	0.55406905	0.53010027	0.38486405
SAN DIEGO	2018	T6 instate con	Aggregated	10	DSL	4041.95213	2.17718993	2.47856501	3.20700476	11.6959853	0.01996961	2113.74464	0.10112483	0.46365395	0.44359648	0.33225122
SAN DIEGO	2018	T6 instate con	Aggregated	15	DSL	1058.40211	1.15516146	1.31506338	2.21337966	8.34937425	0.01611897	1706.1618	0.05365426	0.31733431	0.30360657	0.26818487
SAN DIEGO	2018	T6 instate con	Aggregated	20	DSL	920.223774	0.55609054	0.63306675	1.5687635	6.56846932	0.01362032	1441.6849	0.02582897	0.2159919	0.20664819	0.22661279
SAN DIEGO	2018	T6 instate con	Aggregated	25	DSL	1222.58759	0.40205193	0.45770552	1.27147668	5.88776043	0.01207452	1278.06407	0.01867427	0.17519204	0.16761331	0.20089387
SAN DIEGO	2018	T6 instate con	Aggregated	30	DSL	1407.02577	0.32690549	0.37215701	1.0788935	5.4149551	0.01096183	1160.28844	0.01518391	0.15238985	0.14579753	0.18238118
SAN DIEGO	2018	T6 instate con	Aggregated	35	DSL	1774.19376	0.26851958	0.3056891	0.92292011	5.04736554	0.01008948	1067.95241	0.01247204	0.13715472	0.13122147	0.16786725
SAN DIEGO	2018	T6 instate con	Aggregated	40	DSL	2116.2704	0.22621167	0.25752476	0.80190939	4.7819752	0.00944817	1000.07066	0.01050695	0.12947276	0.12387182	0.15719718
SAN DIEGO	2018	T6 instate con	Aggregated	45	DSL	2547.29045	0.19943385	0.22704025	0.71470294	4.61477514	0.00903243	956.065522	0.00926319	0.12935432	0.12375851	0.15028019
SAN DIEGO	2018	T6 instate con	Aggregated	50	DSL	2853.14643	0.18772595	0.21371171	0.66051616	4.54478156	0.00883884	935.573892	0.00871938	0.13682997	0.13091077	0.14705919
SAN DIEGO	2018	T6 instate con	Aggregated	55	DSL	3472.88714	0.19068097	0.21707576	0.63885371	4.57385088	0.00886513	938.356416	0.00885664	0.15194852	0.14537529	0.14749656
SAN DIEGO	2018	T6 instate con	Aggregated	60	DSL	11033.1134	0.19817979	0.2256126	0.64099113	4.6694371	0.00911926	965.255595	0.00920494	0.16289822	0.15585132	0.15172474
SAN DIEGO	2018	T6 instate con	Aggregated	65	DSL	6476.22919	0.19915435	0.22672207	0.64602732	4.79138959	0.00956346	1012.2736	0.0092502	0.16427575	0.15716926	0.15911531
SAN DIEGO	2018	T6 instate con	Aggregated	70	DSL	934.223406	0.19972441	0.22737104	0.65081241	4.78976606	0.00956346	1012.2736	0.00927668	0.16427575	0.15716926	0.15911531
SAN DIEGO	2018	T6 instate con	Aggregated	75	DSL	565.8707	0.20043497	0.22817995	0.65736791	4.79527995	0.00956346	1012.2736	0.00930968	0.16427575	0.15716926	0.15911531
SAN DIEGO	2018	T6 instate con	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 instate con	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 instate con	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 instate con	Aggregated	5	DSL	14308.4157	2.59405541	2.95313462	3.94485743	12.1485953	0.02330584	2466.8779	0.12048716	0.39479666	0.37771793	0.38775885
SAN DIEGO	2018	T6 instate con	Aggregated	10	DSL	10571.6251	1.95611522	2.22688827	3.12678053	9.96716912	0.01997702	2114.52912	0.09085649	0.33427827	0.31981754	0.33237453
SAN DIEGO	2018	T6 instate con	Aggregated	15	DSL	2768.22435	1.01216944	1.15227786	2.01001523	7.18570361	0.0160571	1699.61326	0.04701265	0.23621765	0.22599897	0.26715554
SAN DIEGO	2018	T6 instate con	Aggregated	20	DSL	2406.82235	0.48513101	0.55228472	1.33538176	5.65852558	0.01358781	1438.24341	0.02253308	0.16771435	0.1604591	0.22607184
SAN DIEGO	2018	T6 instate con	Aggregated	25	DSL	3197.64739	0.35846686	0.40808724	1.0831826	4.96569974	0.01201474	1271.7371	0.01664986	0.13983924	0.13378986	0.19989936
SAN DIEGO	2018	T6 instate con	Aggregated	30	DSL	3680.04086	0.29340021	0.33401381	0.94028634	4.4607704	0.01085169	1148.63085	0.01362768	0.12570328	0.12026541	0.18054877
SAN DIEGO	2018	T6 instate con	Aggregated	35	DSL	4640.35956	0.24211278	0.27562698	0.82848667	4.06467106	0.00994335	1052.48405	0.01124551	0.11834569	0.1132261	0.16543584
SAN DIEGO	2018	T6 instate con	Aggregated	40	DSL	5535.05249	0.20398909	0.23222605	0.7463087	3.77483281	0.00928219	982.501843	0.00947477	0.1177479	0.11265417	0.15443561
SAN DIEGO	2018	T6 instate con	Aggregated	45	DSL	6662.37469	0.17853496	0.20324847	0.69271561	3.58799897	0.00886382	938.218232	0.00829249	0.12391553	0.118555	0.14747484
SAN DIEGO	2018	T6 instate con	Aggregated	50	DSL	7462.33341	0.16533523	0.18822157	0.66700582	3.50337464	0.00868547	919.340084	0.00767939	0.13687373	0.13095263	0.14450746
SAN DIEGO	2018	T6 instate con	Aggregated	55	DSL	9083.24978	0.16402252	0.18672715	0.6687372	3.5223339	0.00874531	925.673804	0.00761842	0.15666487	0.14988761	0.14550303
SAN DIEGO	2018	T6 instate con	Aggregated	60	DSL	28856.8333	0.16837226	0.19167901	0.68096239	3.62543988	0.00904969	957.892126	0.00782046	0.16977352	0.1624292	0.1505673
SAN DIEGO	2018	T6 instate con	Aggregated	65	DSL	16938.4161	0.16945395	0.19291043	0.6868372	3.77782289	0.00956655	1012.60098	0.0078707	0.17141152	0.16399633	0.15916677
SAN DIEGO	2018	T6 instate con	Aggregated	70	DSL	2443.43804	0.17005138	0.19359055	0.69185199	3.7765428	0.00956655	1012.60098	0.00789845	0.17141152	0.16399633	0.15916677
SAN DIEGO	2018	T6 instate con	Aggregated	75	DSL	1480.02072	0.17079604	0.19443829	0.69872219	3.78089028	0.00956655	1012.60098	0.00793303	0.17141152	0.16399633	0.15916677
SAN DIEGO	2018	T6 instate con	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 instate con	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 instate con	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 instate hea	Aggregated	5	DSL	5130.95745	2.37079868	2.69897383	3.40605434	12.5375054	0.02277231	2410.40472	0.11011746	0.44386261	0.42466131	0.37888206
SAN DIEGO	2018	T6 instate hea	Aggregated	10	DSL	11639.7776	1.80605495	2.05605609	2.75301889	10.284382	0.01952769	2066.96857	0.08388657	0.3730299	0.3568928	0.32489868
SAN DIEGO	2018	T6 instate hea	Aggregated	15	DSL	14867.4986	0.95927425	1.09206071	1.87384317	7.38380831	0.01570235	1662.06364	0.0445558	0.25832541	0.24715036	0.262125326
SAN DIEGO	2018	T6 instate hea	Aggregated	20	DSL	19611.192	0.46433571	0.52861086	1.31934525	5.82652072	0.01328991	1406.71146	0.02156719	0.17862485	0.17089761	0.22111545
SAN DIEGO	2018	T6 instate hea	Aggregated	25	DSL	27403.3954	0.33736436	0.38406365	1.07069597	5.16131004	0.01175411	1244.14944	0.0156697	0.14635843	0.14002703	0.19556297
SAN DIEGO	2018	T6 instate hea	Aggregated	30	DSL	34936.9004	0.27543823	0.31356545	0.91103605	4.68354587	0.01056344	1118.11943	0.01279339	0.1285212	0.12296143	0.1757528
SAN DIEGO	2018	T6 instate hea	Aggregated	35	DSL	29240.5495	0.22710965	0.25854705	0.78219946	4.31129966	0.00963055	1019.37467	0.01054866	0.11691708	0.1118593	0.1602315
SAN DIEGO	2018	T6 instate hea	Aggregated	40	DSL	17720.6034	0.19179897	0.21834852	0.68278821	4.04237645	0.00894384	946.688252	0.00890857	0.11153329	0.10670841	0.14880621
SAN DIEGO	2018	T6 instate hea	Aggregated	45	DSL	13095.3737	0.16903827	0.1924372	0.61182229	3.87495214	0.00849504	899.183571	0.00785139	0.11237912	0.10751765	0.14133914
SAN DIEGO	2018	T6 instate hea	Aggregated	50	DSL	27045.8553	0.15843157	0.18036228	0.56864223	3.80774209	0.00827761	876.168601	0.00735874	0.11948218	0.11431344	0.1377215
SAN DIEGO	2018	T6 instate hea	Aggregated	55	DSL	67585.372	0.15962546	0.18172144	0.55283713	3.83758668	0.0083315	881.873628	0.00741419	0.13288666	0.12713804	0.13861825
SAN DIEGO	2018	T6 instate hea	Aggregated	60	DSL	45899.1945	0.16520311	0.18807117	0.55624264	3.93588378	0.00861704	912.097394	0.00767326	0.14257137	0.1364038	0.14336901
SAN DIEGO	2018	T6 instate hea	Aggregated	65	DSL	17863.086	0.16629266	0.18931154	0.5620011	4.0793635	0.00910391	963.63122	0.00772386	0.14413962	0.13790421	0.15146941
SAN DIEGO	2018	T6 instate hea	Aggregated	70	DSL	1524.28709	0.16690894	0.19001313	0.5671742	4.08216513	0.00910391	963.63122	0.00775249	0.14413962	0.13790421	0.15146941
SAN DIEGO	2018	T6 instate hea	Aggregated	75	DSL	45.4358345	0.16767712	0.19088763	0.57426126	4.09670969	0.00910391	963.63122	0.00778817	0.14413962	0.13790421	0.15146941
SAN DIEGO	2018	T6 instate hea	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 instate hea	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2018	T6 instate heavy	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 instate small	Aggregated	5	DSL	7501.75409	2.74274914	3.12241112	4.1287639	12.3792669	0.02314396	2449.74383	0.12739359	0.41456955	0.39663545	0.38506561
SAN DIEGO	2018	T6 instate small	Aggregated	10	DSL	17018.0224	2.06794378	2.35419657	3.27839067	10.1809106	0.01986807	2102.99719	0.09605063	0.35138692	0.33618608	0.33056187
SAN DIEGO	2018	T6 instate small	Aggregated	15	DSL	21737.1357	1.06783575	1.21564971	2.10460122	7.33122938	0.0159761	1691.03923	0.0495982	0.24890865	0.23814097	0.26580782
SAN DIEGO	2018	T6 instate small	Aggregated	20	DSL	28672.6876	0.50993398	0.58052101	1.39466009	5.76256682	0.01350432	1429.40581	0.02368511	0.17722008	0.16955362	0.22468269
SAN DIEGO	2018	T6 instate small	Aggregated	25	DSL	40065.3358	0.37720463	0.42941876	1.13361161	5.06291144	0.01194446	1264.29841	0.01752018	0.14802647	0.14162291	0.1987301
SAN DIEGO	2018	T6 instate small	Aggregated	30	DSL	51079.7522	0.30942116	0.35225244	0.98753994	4.56062924	0.0107995	1143.1057	0.01437181	0.13328263	0.12751688	0.1796803
SAN DIEGO	2018	T6 instate small	Aggregated	35	DSL	42751.3605	0.25586314	0.29128071	0.87336663	4.16550717	0.00990419	1048.33965	0.01188418	0.12569665	0.12025907	0.16478439
SAN DIEGO	2018	T6 instate small	Aggregated	40	DSL	25908.5385	0.21595077	0.24584352	0.78970606	3.87554894	0.00925157	979.261153	0.01003035	0.12525115	0.11983284	0.15392622
SAN DIEGO	2018	T6 instate small	Aggregated	45	DSL	19146.1875	0.18921561	0.21540756	0.73558792	3.68905755	0.00883754	935.4369	0.00878857	0.1319527	0.12624448	0.14703765
SAN DIEGO	2018	T6 instate small	Aggregated	50	DSL	39542.5917	0.17526069	0.19952096	0.71036055	3.60484029	0.00865953	916.594418	0.00814041	0.14582741	0.13951898	0.14407588
SAN DIEGO	2018	T6 instate small	Aggregated	55	DSL	98813.6903	0.1737312	0.19777975	0.71361967	3.61993839	0.00871583	922.553929	0.00806936	0.16691867	0.15969784	0.14501263
SAN DIEGO	2018	T6 instate small	Aggregated	60	DSL	67107.2549	0.17815486	0.20281575	0.72692952	3.71048337	0.00901125	953.823396	0.00827483	0.18076314	0.1729434	0.14992776
SAN DIEGO	2018	T6 instate small	Aggregated	65	DSL	26116.8563	0.17916798	0.20396911	0.73254178	3.84996144	0.00951211	1006.83828	0.00832189	0.1822749	0.17438977	0.15826096
SAN DIEGO	2018	T6 instate small	Aggregated	70	DSL	2228.59515	0.17980152	0.20469035	0.73785978	3.85260553	0.00951211	1006.83828	0.00835132	0.1822749	0.17438977	0.15826096
SAN DIEGO	2018	T6 instate small	Aggregated	75	DSL	66.4297961	0.18059121	0.20558935	0.74514535	3.86633218	0.00951211	1006.83828	0.00838799	0.1822749	0.17438977	0.15826096
SAN DIEGO	2018	T6 instate small	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 instate small	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 instate small	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 OOS heavy	Aggregated	5	DSL	73.5347178	0.67145855	0.76440445	1.54310717	7.24654718	0.02288205	2422.02053	0.03118751	0.08474523	0.08107919	0.3807079
SAN DIEGO	2018	T6 OOS heavy	Aggregated	10	DSL	166.989815	0.50355137	0.57325491	1.12703707	5.78738602	0.0191745	2029.58413	0.02338866	0.07327752	0.07010756	0.31902236
SAN DIEGO	2018	T6 OOS heavy	Aggregated	15	DSL	162.967217	0.26735982	0.3043688	0.68570364	4.20534532	0.01522842	1611.89896	0.01241817	0.05471499	0.05234805	0.25336807
SAN DIEGO	2018	T6 OOS heavy	Aggregated	20	DSL	210.721223	0.13717093	0.15615866	0.45299178	3.35804923	0.01298496	1374.43242	0.00637123	0.04158018	0.03978144	0.21604164
SAN DIEGO	2018	T6 OOS heavy	Aggregated	25	DSL	181.151277	0.10287637	0.11711691	0.36123833	2.79505759	0.01139584	1206.22706	0.00477834	0.03605558	0.03449583	0.1896021
SAN DIEGO	2018	T6 OOS heavy	Aggregated	30	DSL	114.968153	0.08413459	0.09578083	0.3047237	2.32969026	0.01006706	1065.57834	0.00390783	0.03356742	0.03211531	0.16749408
SAN DIEGO	2018	T6 OOS heavy	Aggregated	35	DSL	165.300908	0.0693821	0.07898624	0.26075207	1.96129672	0.00903974	956.838696	0.00322262	0.03282426	0.03140429	0.15040172
SAN DIEGO	2018	T6 OOS heavy	Aggregated	40	DSL	161.662882	0.0582653	0.06633061	0.22846315	1.6902438	0.0083046	879.02584	0.00270627	0.03381485	0.03235203	0.13817062
SAN DIEGO	2018	T6 OOS heavy	Aggregated	45	DSL	206.525049	0.05051477	0.05750722	0.20723387	1.51509922	0.00785435	831.368116	0.00234628	0.03653594	0.03495541	0.13067949
SAN DIEGO	2018	T6 OOS heavy	Aggregated	50	DSL	276.152032	0.04592082	0.05227736	0.19661875	1.43612724	0.00768275	813.204199	0.0021329	0.04099005	0.03921684	0.12782438
SAN DIEGO	2018	T6 OOS heavy	Aggregated	55	DSL	649.25074	0.04431552	0.05044985	0.19630584	1.45261118	0.00782684	828.455929	0.00205834	0.04718432	0.04514315	0.13022174
SAN DIEGO	2018	T6 OOS heavy	Aggregated	60	DSL	2256.55553	0.04512167	0.05136758	0.20202841	1.56038349	0.00825089	873.340759	0.00209578	0.05180159	0.04956068	0.13727701
SAN DIEGO	2018	T6 OOS heavy	Aggregated	65	DSL	4352.7206	0.04638931	0.05281069	0.20986518	1.75073478	0.00894459	946.767027	0.00215466	0.05376877	0.05144275	0.14881859
SAN DIEGO	2018	T6 OOS heavy	Aggregated	70	DSL	52.134851	0.04741527	0.05397868	0.21847717	1.74712746	0.00894459	946.767027	0.00220232	0.05376877	0.05144275	0.14881859
SAN DIEGO	2018	T6 OOS heavy	Aggregated	75	DSL	0.01951387	0.0486941	0.05543452	0.23027546	1.74719382	0.00894459	946.767027	0.00226171	0.05376877	0.05144275	0.14881859
SAN DIEGO	2018	T6 OOS heavy	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 OOS heavy	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 OOS heavy	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 OOS small	Aggregated	5	DSL	10.3373505	1.25737767	1.43142876	2.33694067	8.51729227	0.02315995	2451.43598	0.05840194	0.15876633	0.15189817	0.3853316
SAN DIEGO	2018	T6 OOS small	Aggregated	10	DSL	23.4750645	0.94620407	1.07718131	1.77509131	6.9110551	0.01955919	2070.30229	0.04394873	0.13778493	0.13182441	0.32542269
SAN DIEGO	2018	T6 OOS small	Aggregated	15	DSL	22.9095765	0.49644827	0.56516856	1.09549862	5.04386463	0.01560484	1651.74244	0.02305874	0.10361495	0.09913262	0.25963091
SAN DIEGO	2018	T6 OOS small	Aggregated	20	DSL	29.6227306	0.24802481	0.28235736	0.71590104	4.0131188	0.01327929	1405.58674	0.01152011	0.07921475	0.07578795	0.22093866
SAN DIEGO	2018	T6 OOS small	Aggregated	25	DSL	25.465852	0.18640343	0.21220611	0.57898147	3.40459547	0.011687	1237.04617	0.00865796	0.06886467	0.06588561	0.19444643
SAN DIEGO	2018	T6 OOS small	Aggregated	30	DSL	16.1619725	0.1538383	0.1751332	0.50142602	2.92419687	0.0104413	1105.19166	0.00714539	0.06412275	0.06134883	0.17372074
SAN DIEGO	2018	T6 OOS small	Aggregated	35	DSL	23.2376417	0.12791488	0.14562136	0.44188387	2.54253683	0.00947643	1003.06161	0.00594131	0.06255355	0.05984751	0.15766732
SAN DIEGO	2018	T6 OOS small	Aggregated	40	DSL	22.726216	0.1081285	0.12309607	0.3991317	2.2599449	0.00878609	929.990592	0.00502229	0.06413786	0.06136328	0.14618157
SAN DIEGO	2018	T6 OOS small	Aggregated	45	DSL	29.0328417	0.09409638	0.10712156	0.3722814	2.07457615	0.0083666	885.588486	0.00437053	0.06886834	0.06588912	0.13920218
SAN DIEGO	2018	T6 OOS small	Aggregated	50	DSL	38.8208513	0.08552276	0.09736115	0.36069526	1.98687032	0.00821564	869.609205	0.00397231	0.07674583	0.07342584	0.13669046
SAN DIEGO	2018	T6 OOS small	Aggregated	55	DSL	91.2702552	0.08217325	0.09354799	0.36392338	1.99588082	0.00833165	881.888944	0.00381673	0.08777757	0.08398035	0.13862066
SAN DIEGO	2018	T6 OOS small	Aggregated	60	DSL	317.221662	0.08292399	0.09440265	0.37285001	2.09426156	0.00872331	923.345782	0.0038516	0.09527375	0.09115225	0.1451371
SAN DIEGO	2018	T6 OOS small	Aggregated	65	DSL	611.895983	0.08414645	0.09579433	0.37996366	2.2666335	0.0093728	992.092567	0.00390838	0.09709625	0.0928959	0.15594314
SAN DIEGO	2018	T6 OOS small	Aggregated	70	DSL	7.32900382	0.08505384	0.09682732	0.38758032	2.26196319	0.0093728	992.092567	0.00395053	0.09709625	0.0928959	0.15594314
SAN DIEGO	2018	T6 OOS small	Aggregated	75	DSL	0.00274322	0.08618486	0.0981149	0.39801503	2.2620491	0.0093728	992.092567	0.00400306	0.09709625	0.0928959	0.15594314
SAN DIEGO	2018	T6 OOS small	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 OOS small	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 OOS small	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 Public	Aggregated	5	DSL	1266.57968	0.49327934	0.56156099	0.89284069	15.6710003	0.02319238	2454.86813	0.02291155	0.11145139	0.10663005	0.38587108
SAN DIEGO	2018	T6 Public	Aggregated	10	DSL	2409.93729	0.38036535	0.43301699	0.69858353	12.9678536	0.02029554	2148.24361	0.01766699	0.09384037	0.08978088	0.33767398
SAN DIEGO	2018	T6 Public	Aggregated	15	DSL	1927.57083	0.21637744	0.24632924	0.48089471	9.27401224	0.01649234	1745.68186	0.01005017	0.06538333	0.06255487	0.27439688

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2018	T6 Public	Aggregated	20	DSL	1438.0596	0.11608818	0.13215756	0.35012943	7.32072254	0.01387082	1468.19989	0.005392	0.04562288	0.04364925	0.23078058
SAN DIEGO	2018	T6 Public	Aggregated	25	DSL	2037.60776	0.08413959	0.09578652	0.27800985	6.69269083	0.01234829	1307.04296	0.00390807	0.03751307	0.03589027	0.20544895
SAN DIEGO	2018	T6 Public	Aggregated	30	DSL	2829.07115	0.06734152	0.0766632	0.22662447	6.29422041	0.01131573	1197.748	0.00312784	0.03280813	0.03138887	0.18826931
SAN DIEGO	2018	T6 Public	Aggregated	35	DSL	3610.02766	0.05449901	0.06204297	0.18556673	5.98511349	0.01049835	1111.22994	0.00253134	0.02948026	0.02820496	0.17466987
SAN DIEGO	2018	T6 Public	Aggregated	40	DSL	4151.24859	0.04514296	0.05139182	0.1536825	5.76056152	0.00988559	1046.37053	0.00209677	0.02751884	0.02632839	0.16447488
SAN DIEGO	2018	T6 Public	Aggregated	45	DSL	3844.23955	0.038924	0.04431201	0.13012583	5.62418326	0.00947126	1002.51421	0.00180792	0.02691926	0.02575475	0.15758127
SAN DIEGO	2018	T6 Public	Aggregated	50	DSL	2765.93364	0.03558003	0.04050516	0.11427897	5.57522066	0.00925145	979.248526	0.0016526	0.02768099	0.02648352	0.15392423
SAN DIEGO	2018	T6 Public	Aggregated	55	DSL	3256.59972	0.03491235	0.03974505	0.10569348	5.61228635	0.00922361	976.301002	0.00162159	0.02980652	0.0285171	0.15346092
SAN DIEGO	2018	T6 Public	Aggregated	60	DSL	3740.62867	0.03578648	0.04074019	0.10485335	5.68297465	0.0093951	994.453364	0.00166219	0.03166774	0.03029781	0.15631422
SAN DIEGO	2018	T6 Public	Aggregated	65	DSL	1591.40636	0.03639888	0.04143736	0.10799565	5.75084339	0.00971421	1028.2301	0.00169063	0.03232823	0.03092973	0.16162345
SAN DIEGO	2018	T6 Public	Aggregated	70	DSL	674.208819	0.03679182	0.04188468	0.11129396	5.75945276	0.00971421	1028.2301	0.00170888	0.03232823	0.03092973	0.16162345
SAN DIEGO	2018	T6 Public	Aggregated	75	DSL	164.111461	0.0372816	0.04244226	0.11581259	5.76881599	0.00971421	1028.2301	0.00173163	0.03232823	0.03092973	0.16162345
SAN DIEGO	2018	T6 Public	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 Public	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 Public	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 utility	Aggregated	5	DSL	73.5422675	0.19078686	0.21719631	0.78989244	6.57880019	0.02345444	2482.60713	0.00886156	0.01639766	0.01568831	0.39023127
SAN DIEGO	2018	T6 utility	Aggregated	10	DSL	264.210314	0.14252785	0.16225711	0.54244044	5.3714494	0.01982423	2098.35633	0.00662005	0.0144318	0.01380749	0.32983239
SAN DIEGO	2018	T6 utility	Aggregated	15	DSL	281.137268	0.08733435	0.09942351	0.32693196	3.97456135	0.01586801	1679.59815	0.00405645	0.01141409	0.01092032	0.26400944
SAN DIEGO	2018	T6 utility	Aggregated	20	DSL	236.940829	0.05673802	0.06459192	0.22364144	3.19468768	0.01356249	1435.56285	0.00263533	0.00933607	0.0089322	0.22565049
SAN DIEGO	2018	T6 utility	Aggregated	25	DSL	282.016205	0.0424295	0.04830275	0.1700424	2.72077497	0.01195714	1265.64023	0.00197074	0.00836941	0.00800736	0.19894102
SAN DIEGO	2018	T6 utility	Aggregated	30	DSL	365.442994	0.03277229	0.03730876	0.13171599	2.34737435	0.0106928	1131.81209	0.00152219	0.00797378	0.00762884	0.1779051
SAN DIEGO	2018	T6 utility	Aggregated	35	DSL	445.805672	0.02553427	0.02906882	0.10200291	2.05393199	0.00971501	1028.31524	0.001186	0.00798213	0.00763683	0.16163684
SAN DIEGO	2018	T6 utility	Aggregated	40	DSL	586.953582	0.0202474	0.02305013	0.07973258	1.83754035	0.0090124	953.945419	0.00094044	0.00838269	0.00802005	0.14994694
SAN DIEGO	2018	T6 utility	Aggregated	45	DSL	603.769485	0.01656661	0.01885983	0.06404261	1.6960062	0.0085783	907.996637	0.00076948	0.00916818	0.00877157	0.14272443
SAN DIEGO	2018	T6 utility	Aggregated	50	DSL	559.020912	0.0142374	0.01620819	0.0542977	1.62770093	0.0084085	890.023028	0.00066129	0.01033392	0.00988688	0.13989923
SAN DIEGO	2018	T6 utility	Aggregated	55	DSL	869.531478	0.01307195	0.01488142	0.05003	1.6332341	0.00850017	899.72687	0.00060716	0.01187674	0.01136295	0.14142453
SAN DIEGO	2018	T6 utility	Aggregated	60	DSL	587.082435	0.01337424	0.01522555	0.05159887	1.71271588	0.00887382	939.27697	0.0006212	0.01341053	0.0128304	0.14764126
SAN DIEGO	2018	T6 utility	Aggregated	65	DSL	4.44647706	0.01467929	0.01671126	0.05789774	1.86091223	0.00951319	1006.95242	0.00068182	0.01479015	0.01415034	0.1582789
SAN DIEGO	2018	T6 utility	Aggregated	70	DSL	0.0007857	0.01536521	0.01749212	0.06365537	1.85595013	0.00951319	1006.95242	0.00071367	0.01479015	0.01415034	0.1582789
SAN DIEGO	2018	T6 utility	Aggregated	75	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 utility	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 utility	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6 utility	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T6TS	Aggregated	5	GAS	1596.50212	1.00490125	1.4482038	9.25999796	1.78394324	0.04051493	4094.15005	0.19538375	0.00883551	0.00813514	0.07842064
SAN DIEGO	2018	T6TS	Aggregated	10	GAS	8025.63021	0.64409729	0.92723324	7.83251808	1.56126162	0.03288691	3323.31626	0.12469849	0.00562368	0.00517858	0.06853554
SAN DIEGO	2018	T6TS	Aggregated	15	GAS	10137.747	0.4363911	0.627668	6.81134962	1.3819263	0.02689697	2718.01586	0.08415449	0.00377619	0.00347776	0.0605723
SAN DIEGO	2018	T6TS	Aggregated	20	GAS	10515.3334	0.31103415	0.44690145	6.03167093	1.2507253	0.02236094	2259.63654	0.05973623	0.00267458	0.00246351	0.05473484
SAN DIEGO	2018	T6TS	Aggregated	25	GAS	11716.5126	0.23368476	0.3354297	5.42446164	1.1504833	0.01911553	1931.67953	0.04470631	0.00199775	0.00184032	0.05026707
SAN DIEGO	2018	T6TS	Aggregated	30	GAS	13247.1865	0.18523116	0.26565447	4.94711325	1.07419523	0.01696284	1714.14314	0.03531208	0.00157336	0.00144954	0.04686004
SAN DIEGO	2018	T6TS	Aggregated	35	GAS	16464.243	0.15436405	0.22116608	4.55701937	1.02296673	0.01572309	1588.86354	0.02932357	0.00130629	0.00120361	0.04455795
SAN DIEGO	2018	T6TS	Aggregated	40	GAS	20496.2854	0.13549442	0.19394727	4.24731496	0.98992068	0.01521737	1537.75836	0.02565537	0.00114313	0.00105337	0.04305935
SAN DIEGO	2018	T6TS	Aggregated	45	GAS	18691.2116	0.12564406	0.17976229	4.02074662	0.96428719	0.01526698	1542.77163	0.02373542	0.0010542	0.00097151	0.04189631
SAN DIEGO	2018	T6TS	Aggregated	50	GAS	18190.3902	0.1223092	0.17485608	3.8554325	0.96300055	0.01571073	1587.61457	0.02304781	0.00102438	0.00094409	0.04180105
SAN DIEGO	2018	T6TS	Aggregated	55	GAS	23791.3736	0.12504506	0.17859476	3.76270135	0.97986802	0.01635234	1652.4507	0.0235045	0.0010487	0.00096656	0.04250392
SAN DIEGO	2018	T6TS	Aggregated	60	GAS	27454.1595	0.13484512	0.19248215	3.7735973	1.00409021	0.01701373	1719.28587	0.02530594	0.00113097	0.00104242	0.04353916
SAN DIEGO	2018	T6TS	Aggregated	65	GAS	4290.05995	0.15419015	0.22021064	3.93239772	1.02576895	0.01753496	1771.95816	0.02894554	0.00128478	0.00118422	0.04448163
SAN DIEGO	2018	T7 Ag	Aggregated	5	DSL	0.99338123	12.7525977	14.5178618	17.8802833	39.8445036	0.03639612	3852.45889	0.59232513	2.4483177	2.34240456	0.60555289
SAN DIEGO	2018	T7 Ag	Aggregated	10	DSL	3.32915605	9.80055496	11.1571858	15.4835448	32.6997002	0.03230316	3419.22667	0.45521039	2.05467486	1.96579054	0.53745482
SAN DIEGO	2018	T7 Ag	Aggregated	15	DSL	3.27257778	5.21191499	5.93336848	11.632695	22.8889639	0.02627162	2780.80007	0.24207995	1.41884689	1.3574682	0.43710305
SAN DIEGO	2018	T7 Ag	Aggregated	20	DSL	2.49475301	2.43870114	2.77627561	8.81272094	17.8310962	0.02175399	2302.6172	0.11327135	0.97676845	0.93451388	0.36193936
SAN DIEGO	2018	T7 Ag	Aggregated	25	DSL	2.50563822	1.73343133	1.97337962	7.27014728	16.3839728	0.01939333	2052.74689	0.0805134	0.79779943	0.76328698	0.32266323
SAN DIEGO	2018	T7 Ag	Aggregated	30	DSL	3.20973016	1.41149286	1.60687718	6.17693637	15.5094009	0.01795071	1900.04823	0.06556019	0.69328853	0.66329717	0.29866112
SAN DIEGO	2018	T7 Ag	Aggregated	35	DSL	4.42843745	1.16154757	1.32233349	5.26065448	14.8498211	0.01679163	1777.36152	0.05395088	0.61693773	0.59024928	0.27937648
SAN DIEGO	2018	T7 Ag	Aggregated	40	DSL	5.12098383	0.9830028	1.11907386	4.52036786	14.399451	0.01591209	1684.26338	0.04565793	0.56885395	0.54424558	0.26474275
SAN DIEGO	2018	T7 Ag	Aggregated	45	DSL	6.41592652	0.87456763	0.99562868	3.95655948	14.1653684	0.01530973	1620.50503	0.0406214	0.54938876	0.52562244	0.25472082
SAN DIEGO	2018	T7 Ag	Aggregated	50	DSL	8.38585887	0.83421771	0.94969336	3.57104617	14.1450919	0.01498329	1585.95226	0.03874725	0.55913144	0.53494366	0.24928961
SAN DIEGO	2018	T7 Ag	Aggregated	55	DSL	24.0132805	0.85916926	0.9780988	3.36691765	14.3333562	0.01493232	1580.55723	0.03990619	0.59890552	0.57299714	0.24844159
SAN DIEGO	2018	T7 Ag	Aggregated	60	DSL	122.428734	0.90052123	1.02517487	3.32414102	14.5425673	0.01510529	1598.86537	0.04182688	0.62919636	0.6019776	0.25131937

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2018	T7 Ag	Aggregated	65	DSL	77.8554161	0.90120253	1.02595048	3.32950472	14.6655109	0.01540747	1630.85058	0.04185852	0.63047255	0.60319859	0.256347
SAN DIEGO	2018	T7 Ag	Aggregated	70	DSL	0.49371666	0.9012037	1.02595181	3.32951578	14.6883471	0.01540747	1630.85058	0.04185858	0.63047255	0.60319859	0.256347
SAN DIEGO	2018	T7 Ag	Aggregated	75	DSL	0.00868482	0.90120517	1.02595348	3.32953095	14.7301399	0.01540747	1630.85058	0.04185865	0.63047255	0.60319859	0.256347
SAN DIEGO	2018	T7 Ag	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 Ag	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 Ag	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 CAIRP	Aggregated	5	DSL	2537.47405	1.14136826	1.29936089	3.59677569	14.8190594	0.03435361	3636.26305	0.0530136	0.11310742	0.10821444	0.57156991
SAN DIEGO	2018	T7 CAIRP	Aggregated	10	DSL	5769.66177	0.85680792	0.9754106	2.56240218	11.8128244	0.02882979	3051.57719	0.03979651	0.09657535	0.09239754	0.47966544
SAN DIEGO	2018	T7 CAIRP	Aggregated	15	DSL	5395.60126	0.4845431	0.55161544	1.58442708	8.66417562	0.02296545	2430.84849	0.02250577	0.07042835	0.06738165	0.38209553
SAN DIEGO	2018	T7 CAIRP	Aggregated	20	DSL	7883.02711	0.2762959	0.31454185	1.08414519	6.99289292	0.01964298	2079.17185	0.01283323	0.05246746	0.05019775	0.32681686
SAN DIEGO	2018	T7 CAIRP	Aggregated	25	DSL	6933.48562	0.20464433	0.23297199	0.83895861	5.80324099	0.01726787	1827.77073	0.0095052	0.04501684	0.04306943	0.28730011
SAN DIEGO	2018	T7 CAIRP	Aggregated	30	DSL	3832.2133	0.16085695	0.1831234	0.66976451	4.80496607	0.01526899	1616.19323	0.00747139	0.04164919	0.03984747	0.25404307
SAN DIEGO	2018	T7 CAIRP	Aggregated	35	DSL	5123.31675	0.12760641	0.14527019	0.53753595	4.02157087	0.01372449	1452.71021	0.00592699	0.04068213	0.03892224	0.22834582
SAN DIEGO	2018	T7 CAIRP	Aggregated	40	DSL	4742.37402	0.10337018	0.11767908	0.43805241	3.45120552	0.0126139	1335.15638	0.00480128	0.04208863	0.0402679	0.20986799
SAN DIEGO	2018	T7 CAIRP	Aggregated	45	DSL	6317.49432	0.08699308	0.099035	0.36824916	3.09381236	0.01192228	1261.95051	0.0040406	0.04586266	0.04387866	0.19836105
SAN DIEGO	2018	T7 CAIRP	Aggregated	50	DSL	9298.6355	0.07758216	0.08832139	0.32592444	2.94786789	0.0116376	1231.81748	0.00360349	0.05201367	0.04976359	0.19362455
SAN DIEGO	2018	T7 CAIRP	Aggregated	55	DSL	22323.3188	0.07442921	0.08473199	0.30952372	3.00933365	0.01182021	1251.14602	0.00345704	0.0605639	0.05794393	0.19666273
SAN DIEGO	2018	T7 CAIRP	Aggregated	60	DSL	81458.7953	0.07687474	0.08751604	0.31688288	3.278165	0.01242157	1314.79946	0.00357063	0.06848454	0.06552193	0.20666816
SAN DIEGO	2018	T7 CAIRP	Aggregated	65	DSL	149244.117	0.08126848	0.09251797	0.3405977	3.74448289	0.01342784	1421.31096	0.00377471	0.07469761	0.07146622	0.22341029
SAN DIEGO	2018	T7 CAIRP	Aggregated	70	DSL	1834.13213	0.08347063	0.09502496	0.36133405	3.73672863	0.01342784	1421.31096	0.00387699	0.07469761	0.07146622	0.2

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	Sox_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2018	T7 NNOOS	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 NNOOS	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 NOOS	Aggregated	5	DSL	996.9468	1.14872369	1.30773448	3.61607824	14.7900664	0.03437755	3638.79665	0.05335524	0.11105709	0.10625281	0.57196816
SAN DIEGO	2018	T7 NOOS	Aggregated	10	DSL	2266.83927	0.86195678	0.98127218	2.57488684	11.7947669	0.02885023	3053.74128	0.04003566	0.0949562	0.09084844	0.4800056
SAN DIEGO	2018	T7 NOOS	Aggregated	15	DSL	2119.87484	0.48730849	0.55476362	1.58863994	8.65861968	0.02298344	2432.75227	0.02263422	0.06949104	0.06648489	0.38239478
SAN DIEGO	2018	T7 NOOS	Aggregated	20	DSL	3097.15823	0.27823415	0.3167484	1.0844035	6.99190878	0.01966052	2081.02765	0.01292326	0.0519898	0.04974074	0.32710857
SAN DIEGO	2018	T7 NOOS	Aggregated	25	DSL	2724.09339	0.20628139	0.23483566	0.83861071	5.80126901	0.01728396	1829.47377	0.00958124	0.04471095	0.04277678	0.2875678
SAN DIEGO	2018	T7 NOOS	Aggregated	30	DSL	1505.6362	0.16217834	0.1846277	0.66951115	4.80198605	0.01528338	1617.71662	0.00753276	0.0414675	0.03967364	0.25428253
SAN DIEGO	2018	T7 NOOS	Aggregated	35	DSL	2012.89713	0.12867821	0.14649035	0.53754631	4.01793623	0.0137376	1454.09825	0.00597677	0.04062879	0.03887121	0.228564
SAN DIEGO	2018	T7 NOOS	Aggregated	40	DSL	1863.22875	0.10423529	0.11866394	0.43843023	3.44721028	0.01262597	1336.43457	0.00484146	0.04216647	0.04034237	0.2100689
SAN DIEGO	2018	T7 NOOS	Aggregated	45	DSL	2482.0769	0.08768119	0.09981836	0.36904462	3.08971072	0.01193345	1263.13307	0.00407256	0.04607238	0.04407931	0.19854693
SAN DIEGO	2018	T7 NOOS	Aggregated	50	DSL	3653.33584	0.07811817	0.08893159	0.32714155	2.943887	0.01164793	1232.91116	0.00362839	0.05235291	0.05008815	0.19379647
SAN DIEGO	2018	T7 NOOS	Aggregated	55	DSL	8770.59659	0.07484035	0.08520005	0.31112449	3.00568405	0.01182981	1252.16291	0.00347614	0.06102625	0.05838628	0.19682257
SAN DIEGO	2018	T7 NOOS	Aggregated	60	DSL	32004.3017	0.07721963	0.08790867	0.31871321	3.27574978	0.01243098	1315.79477	0.00358665	0.06902321	0.06603729	0.20682462
SAN DIEGO	2018	T7 NOOS	Aggregated	65	DSL	58636.4399	0.08163274	0.09293266	0.34247046	3.74413851	0.01343753	1422.33621	0.00379163	0.0752598	0.07200409	0.22357145
SAN DIEGO	2018	T7 NOOS	Aggregated	70	DSL	720.611175	0.08381861	0.09542111	0.36305352	3.73638496	0.01343753	1422.33621	0.00389316	0.0752598	0.07200409	0.22357145
SAN DIEGO	2018	T7 NOOS	Aggregated	75	DSL	0.22832141	0.08654321	0.09852286	0.39125198	3.73767275	0.01343753	1422.33621	0.00401971	0.0752598	0.07200409	0.22357145
SAN DIEGO	2018	T7 NOOS	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 NOOS	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 NOOS	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 other port	Aggregated	5	DSL	3243.90932	1.13006321	1.28649094	4.0953572	14.5106615	0.03541444	3748.54946	0.05248851	0.04964392	0.04749634	0.58921977
SAN DIEGO	2018	T7 other port	Aggregated	10	DSL	5900.44411	0.87578986	0.99702008	3.01214475	11.9600216	0.03019551	3196.13614	0.04067817	0.04448605	0.04256161	0.50238809
SAN DIEGO	2018	T7 other port	Aggregated	15	DSL	5455.42548	0.59410819	0.67634695	1.9622253	9.22326456	0.02451426	2594.78692	0.02759479	0.03768105	0.03605098	0.40786437
SAN DIEGO	2018	T7 other port	Aggregated	20	DSL	4218.48304	0.4245347	0.48330044	1.38849674	7.63479172	0.02121899	2245.98889	0.01971854	0.03333864	0.03189643	0.35303818
SAN DIEGO	2018	T7 other port	Aggregated	25	DSL	4383.99098	0.31392399	0.35737856	1.0297519	6.55119536	0.01885075	1995.31586	0.01458096	0.03059573	0.02927217	0.31363587
SAN DIEGO	2018	T7 other port	Aggregated	30	DSL	5432.56388	0.23456081	0.26702963	0.76882127	5.70329871	0.01698123	1797.43009	0.01089474	0.02911399	0.02785453	0.28253098
SAN DIEGO	2018	T7 other port	Aggregated	35	DSL	6706.48469	0.17595215	0.20030813	0.57201803	5.04433074	0.01553928	1644.80257	0.00817252	0.0287229	0.02748036	0.25854006
SAN DIEGO	2018	T7 other port	Aggregated	40	DSL	8321.85164	0.13314851	0.15157944	0.42557365	4.56229078	0.01448033	1532.71445	0.0061844	0.0293275	0.02805881	0.24092137
SAN DIEGO	2018	T7 other port	Aggregated	45	DSL	8709.51706	0.10250246	0.11669125	0.31934171	4.24634118	0.01377823	1458.3994	0.00476097	0.0308687	0.02953333	0.22924008
SAN DIEGO	2018	T7 other port	Aggregated	50	DSL	8851.91722	0.08132612	0.0925836	0.24584503	4.08593522	0.0134165	1420.11005	0.00377739	0.03330719	0.03186633	0.22322152
SAN DIEGO	2018	T7 other port	Aggregated	55	DSL	7761.94169	0.0676387	0.07700151	0.19957345	4.08057351	0.01338408	1416.67905	0.00314164	0.0366155	0.03503153	0.22268222
SAN DIEGO	2018	T7 other port	Aggregated	60	DSL	5123.11016	0.06530968	0.0743501	0.19087401	4.26863068	0.01377191	1457.73003	0.00303347	0.04117419	0.03939302	0.22913486
SAN DIEGO	2018	T7 other port	Aggregated	65	DSL	2015.16221	0.07108372	0.0809234	0.21068015	4.63937494	0.01455722	1540.85322	0.00330165	0.04690512	0.04487602	0.24220067
SAN DIEGO	2018	T7 other port	Aggregated	70	DSL	46.0632288	0.07219487	0.08218836	0.22114317	4.63029165	0.01455722	1540.85322	0.00335326	0.04690512	0.04487602	0.24220067
SAN DIEGO	2018	T7 other port	Aggregated	75	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 other port	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 other port	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 other port	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 POLA	Aggregated	5	DSL	1062.57335	1.30092529	1.48100441	4.45193226	15.1682754	0.03551454	3759.14473	0.06042461	0.05684478	0.0543857	0.5908852
SAN DIEGO	2018	T7 POLA	Aggregated	10	DSL	1932.74659	1.01386636	1.15420967	3.3215336	12.5975508	0.03043485	3221.47023	0.04709147	0.05097687	0.04877163	0.50637026
SAN DIEGO	2018	T7 POLA	Aggregated	15	DSL	1786.97651	0.69051865	0.78610292	2.18983031	9.7806301	0.02483094	2628.30739	0.0320728	0.0432855	0.04141299	0.41313332
SAN DIEGO	2018	T7 POLA	Aggregated	20	DSL	1381.80424	0.49374397	0.56208993	1.55454406	8.1142369	0.0215374	2279.69229	0.02293313	0.03835088	0.03669184	0.35833588
SAN DIEGO	2018	T7 POLA	Aggregated	25	DSL	1436.01795	0.36469536	0.4151779	1.15103637	7.02386575	0.01918545	2030.74306	0.01693915	0.0351485	0.03362799	0.31920453
SAN DIEGO	2018	T7 POLA	Aggregated	30	DSL	1779.48797	0.27208507	0.30974814	0.8581712	6.1927444	0.01734709	1836.15618	0.01263765	0.03327644	0.03183691	0.28861818
SAN DIEGO	2018	T7 POLA	Aggregated	35	DSL	2196.77285	0.20370012	0.23189708	0.6381657	5.54707534	0.01592806	1685.95479	0.00946134	0.0325318	0.03112449	0.26500861
SAN DIEGO	2018	T7 POLA	Aggregated	40	DSL	2725.90166	0.1536811	0.17495423	0.47475461	5.07244725	0.01487621	1574.61821	0.00713809	0.03280179	0.0313828	0.24750805
SAN DIEGO	2018	T7 POLA	Aggregated	45	DSL	2852.88516	0.11771002	0.1340039	0.35595164	4.75625353	0.01416096	1498.91004	0.00546733	0.03401617	0.03254464	0.23560778
SAN DIEGO	2018	T7 POLA	Aggregated	50	DSL	2899.52968	0.09260486	0.10542358	0.27292371	4.58631581	0.01376299	1456.78599	0.00430126	0.03612824	0.03456535	0.22898647
SAN DIEGO	2018	T7 POLA	Aggregated	55	DSL	2542.49783	0.07602067	0.08654375	0.21916152	4.56186628	0.01366941	1446.88037	0.00353096	0.03910537	0.03741369	0.22742944
SAN DIEGO	2018	T7 POLA	Aggregated	60	DSL	1678.12346	0.07254142	0.08258288	0.20686239	4.7279581	0.01398656	1480.45059	0.00336936	0.04339694	0.04151961	0.23270622
SAN DIEGO	2018	T7 POLA	Aggregated	65	DSL	660.08555	0.07831014	0.08915013	0.22530576	5.0721097	0.01468777	1554.67155	0.0036373	0.04890943	0.04679363	0.24437272
SAN DIEGO	2018	T7 POLA	Aggregated	70	DSL	15.0884487	0.07920632	0.09017037	0.23374459	5.06217916	0.01468777	1554.67155	0.00367893	0.04890943	0.04679363	0.24437272
SAN DIEGO	2018	T7 POLA	Aggregated	75	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 POLA	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 POLA	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 POLA	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 Public	Aggregated	5	DSL	1029.55771	0.85973884	0.97874722	1.88896073	27.6793658	0.03547865	3755.34651	0.03993264	0.18131574	0.1734721	0.59028818
SAN DIEGO	2018	T7 Public	Aggregated	10	DSL	1806.73151	0.66829089	0.7607983	1.51049802	22.8432279	0.03127024	3309.89479	0.03104038	0.15435683	0.14767942	0.52026937

Region	Calendar Year	Vehicle Categ	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2018	T7 Public	Aggregated	15	DSL	1387.65954	0.38971538	0.44366129	1.08064468	16.400464	0.02550646	2699.80986	0.01810127	0.11084285	0.10604784	0.42437251
SAN DIEGO	2018	T7 Public	Aggregated	20	DSL	1036.1248	0.21553143	0.24536613	0.81408184	12.9651099	0.02140153	2265.31047	0.01001088	0.08030475	0.0768308	0.35607526
SAN DIEGO	2018	T7 Public	Aggregated	25	DSL	1722.69125	0.1562484	0.17787691	0.6528755	11.8084411	0.01909788	2021.47338	0.00725733	0.06751707	0.06459631	0.31774746
SAN DIEGO	2018	T7 Public	Aggregated	30	DSL	2799.25744	0.1245736	0.14181756	0.53340258	11.069147	0.01759453	1862.34693	0.00578612	0.05990018	0.05730893	0.292735
SAN DIEGO	2018	T7 Public	Aggregated	35	DSL	3284.65517	0.10039137	0.11428793	0.4373457	10.4857773	0.01640113	1736.02794	0.00466292	0.05427391	0.05192605	0.27287942
SAN DIEGO	2018	T7 Public	Aggregated	40	DSL	3431.70772	0.08266082	0.09410305	0.36185422	10.0626461	0.01549763	1640.39373	0.00383938	0.05062827	0.04843811	0.25784705
SAN DIEGO	2018	T7 Public	Aggregated	45	DSL	3600.28513	0.07057615	0.08034557	0.30488055	9.8179712	0.01487226	1574.19951	0.00327808	0.04897469	0.04685606	0.24744224
SAN DIEGO	2018	T7 Public	Aggregated	50	DSL	2357.53971	0.06349485	0.07228405	0.26498204	9.71479027	0.01451776	1536.67623	0.00294917	0.04934279	0.04720825	0.2415441
SAN DIEGO	2018	T7 Public	Aggregated	55	DSL	2352.54401	0.06088483	0.06931275	0.24117497	9.76536132	0.01442957	1527.34152	0.00282794	0.0517788	0.04953887	0.24007682
SAN DIEGO	2018	T7 Public	Aggregated	60	DSL	2758.37763	0.06177064	0.07032117	0.2361871	9.86900435	0.01460471	1545.88027	0.00286909	0.05409236	0.05175235	0.24299085
SAN DIEGO	2018	T7 Public	Aggregated	65	DSL	1233.0578	0.06289286	0.07159873	0.24195469	9.96594369	0.01496726	1584.25549	0.00292121	0.05500147	0.05262213	0.2490229
SAN DIEGO	2018	T7 Public	Aggregated	70	DSL	672.87953	0.06352408	0.07231733	0.24789858	9.99346788	0.01496726	1584.25549	0.00295053	0.05500147	0.05262213	0.2490229
SAN DIEGO	2018	T7 Public	Aggregated	75	DSL	196.558457	0.06431088	0.07321305	0.25604162	10.0076649	0.01496726	1584.25549	0.00298707	0.05500147	0.05262213	0.2490229
SAN DIEGO	2018	T7 Public	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 Public	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 Public	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 Single	Aggregated	5	DSL	1788.57874	4.57147623	5.2042777	7.10239275	24.8509463	0.03475393	3678.63624	0.21233323	0.73994426	0.7079346	0.57823039
SAN DIEGO	2018	T7 Single	Aggregated	10	DSL	4167.54272	3.47734227	3.95868947	5.80186856	20.3785308	0.03026764	3203.77073	0.16151354	0.62188233	0.59497997	0.50358814
SAN DIEGO	2018	T7 Single	Aggregated	15	DSL	5182.82553	1.8270977	2.08001165	3.98781255	14.4419756	0.02451069	2594.40874	0.08486396	0.43159501	0.4129244	0.40780492
SAN DIEGO	2018	T7 Single	Aggregated	20	DSL	6621.81352	0.87391094	0.99488108	2.81899136	11.2591039	0.02060533	2181.03455	0.0405909	0.29939213	0.28644056	0.34282826
SAN DIEGO	2018	T7 Single	Aggregated	25	DSL	9102.81802	0.63357299	0.72127462	2.29083092	10.0899934	0.01830706	1937.76635	0.02942782	0.24602802	0.23538495	0.30458989
SAN DIEGO	2018	T7 Single	Aggregated	30	DSL	11475.3957	0.51348837	0.58456743	1.95263472	9.30831795	0.01672523	1770.33272	0.0238502	0.21697004	0.20758401	0.27827165
SAN DIEGO	2018	T7 Single	Aggregated	35	DSL	9890.46115	0.41997105	0.47810507	1.6790857	8.70148054	0.01547789	1638.30448	0.01950657	0.19856656	0.18997666	0.25751865
SAN DIEGO	2018	T7 Single	Aggregated	40	DSL	6334.21658	0.35194049	0.40065746	1.46741907	8.26375988	0.01455183	1540.28257	0.01634672	0.19083313	0.18257777	0.24211097
SAN DIEGO	2018	T7 Single	Aggregated	45	DSL	5076.001	0.3083456	0.351028	1.31594676	7.9913569	0.01393929	1475.44656	0.01432185	0.19386994	0.18548321	0.23191965
SAN DIEGO	2018	T7 Single	Aggregated	50	DSL	11999.3075	0.28809165	0.32797041	1.22386065	7.88244854	0.01363547	1443.28827	0.01338111	0.20785646	0.19886468	0.22686482
SAN DIEGO	2018	T7 Single	Aggregated	55	DSL	30888.0345	0.28998645	0.3301275	1.19108758	7.92722345	0.01363735	1443.48657	0.01346912	0.23304882	0.22296724	0.22689599
SAN DIEGO	2018	T7 Single	Aggregated	60	DSL	22271.2542	0.30094949	0.34260809	1.19624176	8.0518283	0.01394138	1475.66796	0.01397832	0.2501622	0.23934029	0.23195445
SAN DIEGO	2018	T7 Single	Aggregated	65	DSL	7121.38225	0.30244318	0.34430854	1.20549357	8.19378535	0.01448281	1532.97743	0.0140477	0.25187247	0.24097658	0.2409627
SAN DIEGO	2018	T7 Single	Aggregated	70	DSL	621.643861	0.3034565	0.34546213	1.21503543	8.19968395	0.01448281	1532.97743	0.01409477	0.25187247	0.24097658	0.2409627
SAN DIEGO	2018	T7 Single	Aggregated	75	DSL	23.0075815	0.30471957	0.34690004	1.22810763	8.22374619	0.01448281	1532.97743	0.01415343	0.25187247	0.24097658	0.2409627
SAN DIEGO	2018	T7 Single	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 Single	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 Single	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 single cons	Aggregated	5	DSL	9928.36431	3.61492181	4.11531331	5.98301085	21.4803548	0.03481017	3684.58942	0.16790376	0.62322	0.59625978	0.57916615
SAN DIEGO	2018	T7 single cons	Aggregated	10	DSL	6829.08449	2.75879603	3.14067927	4.86112245	17.4398374	0.02999268	3174.6668	0.12813893	0.52259686	0.49998955	0.49901341
SAN DIEGO	2018	T7 single cons	Aggregated	15	DSL	1450.70891	1.46775346	1.67092558	3.38799906	12.3812205	0.0241758	2558.96104	0.06817335	0.36090308	0.34529057	0.40223304
SAN DIEGO	2018	T7 single cons	Aggregated	20	DSL	1445.17465	0.71142215	0.80989997	2.44272583	9.70474757	0.02042349	2161.78703	0.03304372	0.24886512	0.23809932	0.33980282
SAN DIEGO	2018	T7 single cons	Aggregated	25	DSL	1949.24967	0.51286884	0.58386213	1.98040359	8.63334237	0.01809138	1914.93763	0.02382143	0.20367759	0.19486659	0.30100153
SAN DIEGO	2018	T7 single cons	Aggregated	30	DSL	2340.00125	0.41339891	0.47062319	1.67003367	7.87526138	0.01640599	1736.54235	0.01920131	0.17849573	0.17077408	0.27296027
SAN DIEGO	2018	T7 single cons	Aggregated	35	DSL	3021.87476	0.33640723	0.38297402	1.41748955	7.28633622	0.01508763	1596.99618	0.01562524	0.16172543	0.15472926	0.25102556
SAN DIEGO	2018	T7 single cons	Aggregated	40	DSL	3874.50857	0.28078813	0.31965592	1.21992863	6.86307646	0.01412253	1494.84252	0.01304188	0.15338412	0.14674879	0.23496843
SAN DIEGO	2018	T7 single cons	Aggregated	45	DSL	4707.82307	0.24546549	0.27944377	1.07561439	6.59637125	0.01350263	1429.22721	0.01140124	0.15357564	0.14693203	0.22465461
SAN DIEGO	2018	T7 single cons	Aggregated	50	DSL	4730.95703	0.22931796	0.26106105	0.98371412	6.48387755	0.01322293	1399.62127	0.01065123	0.16248504	0.155456	0.22000097
SAN DIEGO	2018	T7 single cons	Aggregated	55	DSL	5772.18119	0.23112395	0.26311702	0.94414982	6.53514907	0.01328027	1405.69054	0.01073511	0.18037593	0.17257295	0.22095498
SAN DIEGO	2018	T7 single cons	Aggregated	60	DSL	21186.4832	0.24065328	0.27396544	0.94390451	6.68843474	0.0136759	1447.5678	0.01117772	0.19320763	0.18484955	0.2275375
SAN DIEGO	2018	T7 single cons	Aggregated	65	DSL	10387.2522	0.24255634	0.27613194	0.95564781	6.88457426	0.01436282	1520.27645	0.01126611	0.19539615	0.18694339	0.23896629
SAN DIEGO	2018	T7 single cons	Aggregated	70	DSL	2319.15833	0.24380085	0.27754871	0.96736659	6.90991916	0.01436282	1520.27645	0.01132392	0.19539615	0.18694339	0.23896629
SAN DIEGO	2018	T7 single cons	Aggregated	75	DSL	1840.07075	0.24535208	0.27931467	0.98342112	6.91980129	0.01436282	1520.27645	0.01139597	0.19539615	0.18694339	0.23896629
SAN DIEGO	2018	T7 single cons	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 single cons	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 single cons	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 SWCV	Aggregated	5	DSL	860.056136	0.07243048	0.08245659	0.22665722	32.9572347	0.07778515	8233.40688	0.00336421	0.03223978	0.0308451	1.2941769
SAN DIEGO	2018	T7 SWCV	Aggregated	5	NG	669.966761	1.82591378	22.4557326	40.5732693	10.0027602	0	5543.85427	20.2882074	0.033178	0.03174274	1.13015096
SAN DIEGO	2018	T7 SWCV	Aggregated	10	DSL	2248.60563	0.05571438	0.06342658	0.17648411	27.4673032	0.07008131	7417.97065	0.00258779	0.02786958	0.02666396	1.16600168
SAN DIEGO	2018	T7 SWCV	Aggregated	10	NG	1751.61942	1.3868546	17.5618593	32.8737286	8.14601457	0	4930.32168	15.9133745	0.02744059	0.02625353	1.00507833
SAN DIEGO	2018	T7 SWCV	Aggregated	15	DSL	2406.23045	0.03725671	0.04241393	0.12056933	19.7722835	0.05782979	6121.17102	0.00173048	0.02086293	0.01996041	0.96216284
SAN DIEGO	2018	T7 SWCV	Aggregated	15	NG	1874.40605	0.7307323	10.6964224	23.1526126	5.50576539	0	4125.56365	9.82166745	0.0183354	0.01754222	0.84102314

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2018	T7 SWCV	Aggregated	20	DSL	2021.89555	0.02632431	0.02996822	0.08676762	15.5534652	0.048258	5108.01597	0.0012227	0.01589907	0.01521128	0.80290898
SAN DIEGO	2018	T7 SWCV	Aggregated	20	NG	1575.01674	0.352484	6.54081424	16.7444172	4.17347343	0	3577.22377	6.11295272	0.01214743	0.01162194	0.72924047
SAN DIEGO	2018	T7 SWCV	Aggregated	25	DSL	2454.95744	0.01950242	0.02220202	0.06528571	14.2095567	0.04336913	4590.5387	0.00090584	0.0137307	0.01313672	0.72156876
SAN DIEGO	2018	T7 SWCV	Aggregated	25	NG	1912.36341	0.24955461	4.73384943	12.2811414	3.8689233	0	3290.47626	4.4304879	0.00961314	0.00919728	0.67078511
SAN DIEGO	2018	T7 SWCV	Aggregated	30	DSL	2554.08029	0.01464431	0.01667143	0.04981754	13.4153293	0.0405311	4290.13871	0.00068019	0.01250413	0.01196321	0.67435006
SAN DIEGO	2018	T7 SWCV	Aggregated	30	NG	1989.57815	0.19389308	3.55640145	9.06289154	3.72451419	0	3112.25776	3.3212226	0.00812065	0.00776935	0.6344541
SAN DIEGO	2018	T7 SWCV	Aggregated	35	DSL	2781.57344	0.01105043	0.01258007	0.03814596	12.7968831	0.03823538	4047.14044	0.00051326	0.01171689	0.01121003	0.63615412
SAN DIEGO	2018	T7 SWCV	Aggregated	35	NG	2166.79083	0.15205004	2.68310306	6.68966836	3.62890337	0	2970.28034	2.49912931	0.00705435	0.00674918	0.60551108
SAN DIEGO	2018	T7 SWCV	Aggregated	40	DSL	3048.82185	0.00842707	0.00959358	0.0294251	12.344305	0.03642244	3855.24451	0.00039142	0.0113615	0.01087001	0.60599075
SAN DIEGO	2018	T7 SWCV	Aggregated	40	NG	2374.97207	0.12308309	2.05224378	4.94004241	3.57038417	0	2854.19894	1.90383053	0.00640387	0.00612684	0.58184713
SAN DIEGO	2018	T7 SWCV	Aggregated	45	DSL	3373.59282	0.00655771	0.00746545	0.02303317	12.0574852	0.03505739	3710.75683	0.00030459	0.0114358	0.01094109	0.5832793
SAN DIEGO	2018	T7 SWCV	Aggregated	45	NG	2627.96225	0.10629774	1.61834742	3.6508361	3.54472816	0	2757.85082	1.49083243	0.00616276	0.00589617	0.56220593
SAN DIEGO	2018	T7 SWCV	Aggregated	50	DSL	3121.8942	0.00528269	0.00601394	0.01851385	11.9313182	0.03411864	3611.39173	0.00024537	0.0119415	0.01142492	0.56766049
SAN DIEGO	2018	T7 SWCV	Aggregated	50	NG	2431.89398	0.10118221	1.3479013	2.70179929	3.54819958	0	2677.28944	1.22734621	0.00632673	0.00605304	0.54578297
SAN DIEGO	2018	T7 SWCV	Aggregated	55	DSL	2486.77307	0.00448427	0.005105	0.01553317	11.9628121	0.03359258	3555.70915	0.00020828	0.01288341	0.01232608	0.55890796
SAN DIEGO	2018	T7 SWCV	Aggregated	55	NG	1937.14715	0.10735936	1.21620899	2.00431628	3.57847679	0	2609.84642	1.08920892	0.00689278	0.0065946	0.53203427
SAN DIEGO	2018	T7 SWCV	Aggregated	60	DSL	3596.28258	0.00439169	0.00499961	0.01468034	12.0294621	0.03347487	3543.25042	0.00020398	0.01358528	0.01299758	0.55694962
SAN DIEGO	2018	T7 SWCV	Aggregated	60	NG	2801.43318	0.11459272	1.19650453	1.72876939	3.6054229	0	2580.43389	1.06138239	0.00732588	0.00700896	0.52603833
SAN DIEGO	2018	T7 SWCV	Aggregated	65	DSL	687.679663	0.00480408	0.00546908	0.0152328	12.0353265	0.03353606	3549.72747	0.00022314	0.01376381	0.01316839	0.55796772
SAN DIEGO	2018	T7 SWCV	Aggregated	65	NG	535.688889	0.11459272	1.19650453	1.72876939	3.6053024	0	2580.43389	1.06138239	0.00732588	0.00700896	0.52603833
SAN DIEGO	2018	T7 SWCV	Aggregated	70	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 SWCV	Aggregated	70	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 SWCV	Aggregated	75	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 SWCV	Aggregated	75	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 SWCV	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 SWCV	Aggregated	80	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 SWCV	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 SWCV	Aggregated	85	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 SWCV	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 SWCV	Aggregated	90	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 tractor	Aggregated	5	DSL	1811.47451	2.98340402	3.39637837	5.78559786	19.0867429	0.03484649	3688.43296	0.13857139	0.39971113	0.38241981	0.5797703
SAN DIEGO	2018	T7 tractor	Aggregated	10	DSL	3868.67579	2.26526569	2.57883255	4.50281067	15.465398	0.02966301	3139.77251	0.10521572	0.33372596	0.31928912	0.49352852
SAN DIEGO	2018	T7 tractor	Aggregated	15	DSL	4932.69447	1.22438725	1.39387168	3.00338878	11.1986528	0.02382962	2522.31954	0.05686962	0.22856684	0.21867914	0.39647351
SAN DIEGO	2018	T7 tractor	Aggregated	20	DSL	5636.16176	0.62687234	0.71364644	2.10414023	8.928423	0.02031177	2149.96114	0.0291166	0.15637333	0.14960869	0.33794395
SAN DIEGO	2018	T7 tractor	Aggregated	25	DSL	6855.81111	0.45459302	0.51751955	1.6639825	7.74338362	0.0179486	1899.82422	0.02111467	0.12738896	0.12187817	0.29862591
SAN DIEGO	2018	T7 tractor	Aggregated	30	DSL	8658.78477	0.3590504	0.40875155	1.37054281	6.83024591	0.01604483	1698.31438	0.01667696	0.11181176	0.10697483	0.26695137
SAN DIEGO	2018	T7 tractor	Aggregated	35	DSL	10099.4001	0.28610613	0.32571005	1.13769663	6.12429614	0.01456395	1541.56551	0.01328889	0.10233071	0.09790392	0.24231263
SAN DIEGO	2018	T7 tractor	Aggregated	40	DSL	12648.3469	0.23361739	0.26595562	0.95964835	5.61635836	0.01348036	1426.86999	0.01085092	0.09893201	0.09465225	0.22428409
SAN DIEGO	2018	T7 tractor	Aggregated	45	DSL	14907.3827	0.19980489	0.22746266	0.83240146	5.305117	0.01277646	1352.36341	0.00928042	0.10167269	0.09727437	0.2125727
SAN DIEGO	2018	T7 tractor	Aggregated	50	DSL	22648.2232	0.18310593	0.20845216	0.75335325	5.18438918	0.01243885	1316.62772	0.0085048	0.11067249	0.10588485	0.20695554
SAN DIEGO	2018	T7 tractor	Aggregated	55	DSL	50846.187	0.18206611	0.2072684	0.72099604	5.25601468	0.01253083	1326.36378	0.0084565	0.12610986	0.1206544	0.20848592
SAN DIEGO	2018	T7 tractor	Aggregated	60	DSL	160083.284	0.18962211	0.21587033	0.72464754	5.49124364	0.01300056	1376.0841	0.00880746	0.13810741	0.13213294	0.21630126
SAN DIEGO	2018	T7 tractor	Aggregated	65	DSL	110672.386	0.19340332	0.22017495	0.74341784	5.88527642	0.01381967	1462.7855	0.00898308	0.14297926	0.13679404	0.22992951
SAN DIEGO	2018	T7 tractor	Aggregated	70	DSL	33428.2942	0.19476317	0.22172305	0.7562228	5.90176091	0.01381967	1462.7855	0.00904624	0.14297926	0.13679404	0.22992951
SAN DIEGO	2018	T7 tractor	Aggregated	75	DSL	1703.41528	0.19645818	0.22365268	0.77376539	5.89982468	0.01381967	1462.7855	0.00912497	0.14297926	0.13679404	0.22992951
SAN DIEGO	2018	T7 tractor	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 tractor	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 tractor	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 tractor cor	Aggregated	5	DSL	8190.02645	3.61426501	4.11456559	6.55011756	20.6925358	0.03524879	3731.01584	0.16787325	0.49515022	0.47373024	0.58646373
SAN DIEGO	2018	T7 tractor cor	Aggregated	10	DSL	5633.39346	2.74743239	3.12774264	5.17566842	16.7703053	0.03015399	3191.74136	0.12761112	0.41304445	0.39517633	0.50169729
SAN DIEGO	2018	T7 tractor cor	Aggregated	15	DSL	1196.70713	1.47746906	1.68198606	3.48896481	12.0960797	0.0242919	2571.25015	0.06862461	0.28205626	0.26985463	0.40416472
SAN DIEGO	2018	T7 tractor cor	Aggregated	20	DSL	1192.14185	0.74703302	0.85044023	2.44994226	9.60468034	0.02067875	2188.8058	0.03469775	0.19206856	0.18375976	0.34404979
SAN DIEGO	2018	T7 tractor cor	Aggregated	25	DSL	1607.95936	0.54076421	0.61561889	1.94433936	8.40992807	0.01830427	1937.47138	0.0251171	0.15597877	0.1492312	0.30454352
SAN DIEGO	2018	T7 tractor cor	Aggregated	30	DSL	1930.29501	0.42781993	0.48704043	1.61000689	7.51248496	0.01651724	1748.31765	0.01987113	0.1364097	0.13050868	0.27481119
SAN DIEGO	2018	T7 tractor cor	Aggregated	35	DSL	2492.78063	0.34146221	0.38872874	1.34420985	6.81826665	0.01512809	1601.27851	0.01586004	0.1242054	0.11883233	0.25169868
SAN DIEGO	2018	T7 tractor cor	Aggregated	40	DSL	3196.12846	0.27933685	0.31800374	1.14061515	6.32074091	0.01411619	1494.17158	0.01297447	0.11935487	0.11419163	0.23486296
SAN DIEGO	2018	T7 tractor cor	Aggregated	45	DSL	3883.53955	0.23946199	0.27260925	0.99489438	6.00956336	0.01346947	1425.7173	0.01112239	0.12193231	0.11665757	0.2241029
SAN DIEGO	2018	T7 tractor cor	Aggregated	50	DSL	3902.62303	0.22006686	0.25052937	0.90428029	5.88140304	0.01318035	1395.11479	0.01022154	0.13208817	0.12637409	0.21929262

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2018	T7 tractor con	Aggregated	55	DSL	4761.54129	0.21947291	0.2498532	0.86723987	5.94396487	0.01324391	1401.84249	0.01019395	0.15004464	0.14355378	0.22035012
SAN DIEGO	2018	T7 tractor con	Aggregated	60	DSL	17476.9833	0.22853537	0.26017012	0.87005366	6.16466771	0.01368428	1448.45455	0.01061488	0.16352467	0.15645067	0.22767688
SAN DIEGO	2018	T7 tractor con	Aggregated	65	DSL	8568.56854	0.23204085	0.26416085	0.88714404	6.49612739	0.01446627	1531.22634	0.0107777	0.16793025	0.16066566	0.24068746
SAN DIEGO	2018	T7 tractor con	Aggregated	70	DSL	1913.10144	0.23334996	0.26565116	0.8994711	6.52004227	0.01446627	1531.22634	0.0108385	0.16793025	0.16066566	0.24068746
SAN DIEGO	2018	T7 tractor con	Aggregated	75	DSL	1517.89636	0.2349817	0.26750878	0.91635897	6.52936682	0.01446627	1531.22634	0.01091429	0.16793025	0.16066566	0.24068746
SAN DIEGO	2018	T7 tractor con	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 tractor con	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 tractor con	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 utility	Aggregated	5	DSL	34.0916221	0.47025173	0.5353458	1.81783364	13.6026171	0.03601716	3812.34632	0.02184197	0.03946393	0.03775674	0.59924775
SAN DIEGO	2018	T7 utility	Aggregated	10	DSL	134.015203	0.35976353	0.40956339	1.29452217	11.2358188	0.03078601	3258.63978	0.01671008	0.03406886	0.03259506	0.51221279
SAN DIEGO	2018	T7 utility	Aggregated	15	DSL	132.027718	0.22496916	0.25611026	0.8108813	8.29162853	0.02483852	2629.1089	0.01044923	0.02573139	0.02461826	0.41325931
SAN DIEGO	2018	T7 utility	Aggregated	20	DSL	103.359027	0.14674731	0.16706065	0.56286221	6.64351969	0.02122068	2246.16821	0.00681603	0.0200151	0.01914925	0.35306636
SAN DIEGO	2018	T7 utility	Aggregated	25	DSL	126.161393	0.10860753	0.1236414	0.42559205	5.81395859	0.01879697	1989.62271	0.00504454	0.01744528	0.0166906	0.31274098
SAN DIEGO	2018	T7 utility	Aggregated	30	DSL	166.340183	0.08277716	0.0942355	0.32743227	5.20327356	0.01695145	1794.27764	0.00384478	0.01614045	0.01544222	0.28203546
SAN DIEGO	2018	T7 utility	Aggregated	35	DSL	205.716915	0.06350794	0.07229895	0.25205408	4.72780842	0.01551834	1642.58662	0.00294978	0.01559089	0.01491644	0.25819174
SAN DIEGO	2018	T7 utility	Aggregated	40	DSL	283.069505	0.04941447	0.05625461	0.19564165	4.38024286	0.01447225	1531.85926	0.00229517	0.01577172	0.01508944	0.24078694
SAN DIEGO	2018	T7 utility	Aggregated	45	DSL	283.822913	0.03947199	0.04493585	0.15538826	4.15271015	0.01379825	1460.51832	0.00183337	0.01666923	0.01594812	0.22957314
SAN DIEGO	2018	T7 utility	Aggregated	50	DSL	271.874431	0.03292048	0.03747746	0.12923214	4.04521001	0.01348697	1427.56931	0.00152907	0.01827654	0.0174859	0.22439401
SAN DIEGO	2018	T7 utility	Aggregated	55	DSL	424.647433	0.02919404	0.03323519	0.11566182	4.05562206	0.01353214	1432.35115	0.00135599	0.02059144	0.01970067	0.22514565
SAN DIEGO	2018	T7 utility	Aggregated	60	DSL	319.379302	0.02901093	0.03302674	0.11645913	4.18055637	0.01397676	1479.41271	0.00134748	0.02280208	0.02181567	0.23254308
SAN DIEGO	2018	T7 utility	Aggregated	65	DSL	3.09867541	0.03095631	0.03524141	0.1281569	4.40182987	0.01478371	1564.8269	0.00143784	0.02457269	0.02350969	0.245969
SAN DIEGO	2018	T7 utility	Aggregated	70	DSL	0.00544454	0.031788	0.03618822	0.13598838	4.38067439	0.01478371	1564.8269	0.00147647	0.02457269	0.02350969	0.245969
SAN DIEGO	2018	T7 utility	Aggregated	75	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 utility	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 utility	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7 utility	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	T7IS	Aggregated	5	GAS	7.14936251	6.79631071	9.68384321	135.942456	8.92481088	0.05401421	5458.29051	1.17214687	0.01147159	0.0106113	0.30397258
SAN DIEGO	2018	T7IS	Aggregated	10	GAS	34.9426245	4.46664899	6.35844963	108.273971	7.94064633	0.04377105	4423.19018	0.76545432	0.00761013	0.00704151	0.26733547
SAN DIEGO	2018	T7IS	Aggregated	15	GAS	38.1054821	3.08076483	4.37944956	89.5464806	7.25897852	0.03578702	3616.38079	0.52447492	0.00531533	0.0049195	0.24144289
SAN DIEGO	2018	T7IS	Aggregated	20	GAS	65.1216174	2.23323492	3.16937664	76.4379328	6.79130594	0.02976459	3007.79684	0.37770358	0.00390647	0.00361644	0.22313674
SAN DIEGO	2018	T7IS	Aggregated	25	GAS	84.9878651	1.7087458	2.42229084	67.252107	6.40284952	0.02546253	2573.06205	0.28738859	0.00301945	0.00279589	0.20791322
SAN DIEGO	2018	T7IS	Aggregated	30	GAS	155.20378	1.37710791	1.95045074	60.6805507	6.12158797	0.02260348	2284.14622	0.2304784	0.00245333	0.00227212	0.19660167
SAN DIEGO	2018	T7IS	Aggregated	35	GAS	276.050741	1.16638695	1.65048584	55.9507608	5.94462613	0.02094376	2116.42723	0.19433237	0.00209453	0.00194015	0.18900811
SAN DIEGO	2018	T7IS	Aggregated	40	GAS	240.63999	1.03863663	1.46848338	52.748016	5.85185012	0.02024836	2046.1548	0.17236067	0.00187831	0.00174011	0.1844305
SAN DIEGO	2018	T7IS	Aggregated	45	GAS	254.622805	0.96967653	1.36929892	50.8141028	5.86924079	0.02028368	2049.72376	0.16028198	0.00176873	0.00163879	0.1836013
SAN DIEGO	2018	T7IS	Aggregated	50	GAS	266.407561	0.95385942	1.34614515	50.434834	5.90660374	0.02084834	2106.78416	0.15722772	0.00174849	0.00162019	0.18373385
SAN DIEGO	2018	T7IS	Aggregated	55	GAS	391.066564	0.9878789	1.39406057	51.8171739	5.97184207	0.02169407	2192.24821	0.162555	0.00181419	0.00168119	0.18507928
SAN DIEGO	2018	T7IS	Aggregated	60	GAS	96.5159007	1.06728969	1.50409868	55.0716016	6.20618679	0.02259385	2283.17282	0.17515571	0.00197538	0.00183066	0.19189613
SAN DIEGO	2018	T7IS	Aggregated	65	GAS	51.7305253	1.21929358	1.71844489	61.7768538	6.41717735	0.02336799	2361.40204	0.19997643	0.00225696	0.00209168	0.19842692
SAN DIEGO	2018	UBUS	Aggregated	5	GAS	754.707769	0.05119529	0.07470405	0.31967513	0.26145057	0.02751781	2780.75319	0.01657836	0.0028231	0.00259573	0.02496549
SAN DIEGO	2018	UBUS	Aggregated	5	DSL	38.5530623	0.01464742	1.04624408	1.67829967	11.6626597	0.03056068	3232.70387	1.02515325	0.01616751	0.01546811	0.50813603
SAN DIEGO	2018	UBUS	Aggregated	5	NG	1451.71113	0.87321408	14.4265216	56.9929588	4.22213155	0	2870.57209	13.3740462	0.00839148	0.00802847	0.5851849
SAN DIEGO	2018	UBUS	Aggregated	10	GAS	2274.33195	0.03282311	0.0478954	0.30016305	0.23485275	0.02276275	2300.2413	0.01060576	0.00175599	0.00161457	0.02225726
SAN DIEGO	2018	UBUS	Aggregated	10	DSL	127.702944	0.01186286	0.8473474	1.35924578	10.0754267	0.02725959	2883.51527	0.83026605	0.01454336	0.01391422	0.45324845
SAN DIEGO	2018	UBUS	Aggregated	10	NG	4808.6397	0.70987843	11.8744683	50.6075326	3.62243683	0	2481.36325	11.0182338	0.00710294	0.00679567	0.50584213
SAN DIEGO	2018	UBUS	Aggregated	15	GAS	4700.89926	0.02109168	0.03077693	0.25901943	0.19284542	0.01793977	1812.86472	0.00684537	0.00119181	0.00109583	0.01854256
SAN DIEGO	2018	UBUS	Aggregated	15	DSL	217.583168	0.00835474	0.59676721	0.95728542	8.0757496	0.02310071	2443.58967	0.58473721	0.01249717	0.01195655	0.38409827
SAN DIEGO	2018	UBUS	Aggregated	15	NG	8193.06918	0.51800514	9.65249634	46.8456489	2.94454474	0	2223.18816	9.02347398	0.00586324	0.0056096	0.45321145
SAN DIEGO	2018	UBUS	Aggregated	20	GAS	14266.9074	0.01918632	0.02799663	0.36082831	0.28623292	0.01988276	2009.20997	0.00603403	0.00067198	0.00061786	0.02522936
SAN DIEGO	2018	UBUS	Aggregated	20	DSL	1906.13583	0.006044	0.43171426	0.6925209	6.75859598	0.02036133	2153.81809	0.42301149	0.01114938	0.01066707	0.33855021
SAN DIEGO	2018	UBUS	Aggregated	20	NG	71775.3256	0.39100884	8.14516339	44.1790785	2.49460843	0	2042.90421	7.66668391	0.00486751	0.00465694	0.41645939
SAN DIEGO	2018	UBUS	Aggregated	25	GAS	3302.38366	0.00936435	0.01366443	0.16535171	0.1130029	0.0108332	1094.72576	0.00310275	0.00067061	0.0006166	0.01182575
SAN DIEGO	2018	UBUS	Aggregated	25	DSL	23.0232286	0.00442931	0.31637928	0.5075099	6.14100022	0.01849891	1956.81156	0.31000151	0.01014271	0.00970394	0.30758353
SAN DIEGO	2018	UBUS	Aggregated	25	NG	866.937028	0.30160944	7.04491384	42.1132451	2.26899311	0	1906.65788	6.67257673	0.00405352	0.00387816	0.38868468
SAN DIEGO	2018	UBUS	Aggregated	30	GAS	3110.29499	0.00731937	0.01068041	0.1531262	0.10552753	0.00964566	974.721079	0.00242403	0.00052181	0.00047979	0.01101977
SAN DIEGO	2018	UBUS	Aggregated	30	DSL	24.0653732	0.00326408	0.23314877	0.37399829	5.7851792	0.01716782	1816.00968	0.22844881	0.00933889	0.00893489	0.28545143
SAN DIEGO	2018	UBUS	Aggregated	30	NG	906.178862	0.23646223	6.20572073	40.4275211	2.13008553	0	1797.94642	5.91089169	0.00339719	0.00325023	0.36652314
SAN DIEGO	2018	UBUS	Aggregated	35	GAS	1097.68948	0.00649575	0.00947858	0.16381572	0.1210527	0.00976558	986.83942	0.00212633	0.00041087	0.00037778	0.01204157

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2018	UBUS	Aggregated	35	DSL	31.1002103	0.00240539	0.17181387	0.27560984	5.5047431	0.01613308	1706.55453	0.16835034	0.00866973	0.00829468	0.26824661
SAN DIEGO	2018	UBUS	Aggregated	35	NG	1171.07484	0.18786507	5.54527134	39.0040556	2.01887191	0	1707.27359	5.30840732	0.00288665	0.00276177	0.34803889
SAN DIEGO	2018	UBUS	Aggregated	40	GAS	516.922902	0.00671392	0.00979694	0.204757	0.16656489	0.01146104	1158.17069	0.00214765	0.00031675	0.00029124	0.01536795
SAN DIEGO	2018	UBUS	Aggregated	40	DSL	41.4344899	0.0017726	0.12661446	0.20310462	5.2753531	0.01529644	1618.05514	0.12406209	0.00809652	0.00774627	0.25433574
SAN DIEGO	2018	UBUS	Aggregated	40	NG	1560.21096	0.15145994	5.01624463	37.7725682	1.92666715	0	1629.54658	4.82294984	0.00251515	0.00240635	0.33219373
SAN DIEGO	2018	UBUS	Aggregated	45	GAS	748.465169	0.00548716	0.00800685	0.15760246	0.12984701	0.01018734	1029.46037	0.00178014	0.00031347	0.00028823	0.0125139
SAN DIEGO	2018	UBUS	Aggregated	45	DSL	34.697717	0.00130628	0.09330575	0.1496735	5.08256771	0.01460032	1544.42001	0.09142484	0.00759516	0.0072666	0.24276132
SAN DIEGO	2018	UBUS	Aggregated	45	NG	1306.53855	0.12405591	4.58524204	36.6876217	1.84825318	0	1561.55948	4.42488412	0.00227851	0.00217994	0.31833412
SAN DIEGO	2018	UBUS	Aggregated	50	GAS	3081.61974	0.00464715	0.00678111	0.11513854	0.094371	0.00905524	915.05767	0.00153643	0.00032674	0.00030043	0.00977542
SAN DIEGO	2018	UBUS	Aggregated	50	DSL	32.6546136	0.00096263	0.06875963	0.1102986	4.91717014	0.01400835	1481.80137	0.06737353	0.00714963	0.00684034	0.23291854
SAN DIEGO	2018	UBUS	Aggregated	50	NG	1229.60573	0.10330933	4.22821107	35.7181462	1.78026368	0	1501.16363	4.09291977	0.00217392	0.00207988	0.30602203
SAN DIEGO	2018	UBUS	Aggregated	55	GAS	1014.00434	0.00551635	0.00804944	0.14267378	0.13810123	0.01125064	1136.90956	0.00178337	0.00030265	0.00027827	0.01314161
SAN DIEGO	2018	UBUS	Aggregated	55	DSL	55.1273272	0.00070939	0.0506709	0.08128213	4.77294716	0.01349623	1427.62872	0.04964944	0.00674873	0.00645678	0.22440335
SAN DIEGO	2018	UBUS	Aggregated	55	NG	2075.81317	0.08749543	3.92759392	34.841966	1.72040778	0	1446.849	3.81153108	0.00219944	0.0021043	0.29494963
SAN DIEGO	2018	UBUS	Aggregated	60	GAS	457.483518	0.0085213	0.01243426	0.23219729	0.2650735	0.01725694	1743.86336	0.00264744	0.00023056	0.00021199	0.02277127
SAN DIEGO	2018	UBUS	Aggregated	60	DSL	83.4428945	0.00060897	0.04349819	0.06977625	4.70735824	0.0132646	1403.12729	0.04262132	0.00656239	0.0062785	0.22055207
SAN DIEGO	2018	UBUS	Aggregated	60	NG	3142.03261	0.07976175	3.70388967	34.0439306	1.68594007	0	1400.49353	3.59755807	0.00238467	0.00228151	0.28549977
SAN DIEGO	2018	UBUS	Aggregated	65	GAS	68.8503067	0.00971093	0.01417017	0.21899378	0.27166694	0.01778401	1797.12501	0.00301704	0.00026131	0.00024026	0.02333768
SAN DIEGO	2018	UBUS	Aggregated	65	DSL	12.55798	0.00060897	0.04349819	0.06977625	4.70735824	0.0132646	1403.12729	0.04262132	0.00656239	0.0062785	0.22055207
SAN DIEGO	2018	UBUS	Aggregated	65	NG	472.869295	0.07738248	3.53394158	33.3111191	1.67265647	0	1360.76793	3.4310359	0.00272468	0.00260681	0.27740144
SAN DIEGO	2018	UBUS	Aggregated	70	GAS	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	UBUS	Aggregated	70	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	UBUS	Aggregated	70	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	UBUS	Aggregated	75	GAS	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	UBUS	Aggregated	75	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	UBUS	Aggregated	75	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	UBUS	Aggregated	80	GAS	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	UBUS	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	UBUS	Aggregated	80	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	UBUS	Aggregated	85	GAS	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	UBUS	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	UBUS	Aggregated	85	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	UBUS	Aggregated	90	GAS	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	UBUS	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2018	UBUS	Aggregated	90	NG	0	0	0	0	0	0	0	0	0	0	0
EMFAC2017 (v1.0.2) Emission Rates																
Region Type: Air Basin																
Region: SAN DIEGO																
Calendar Year: 2050																
Season: Annual																
Vehicle Classification: EMFAC2011 Categories																
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW																
Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2050	All Other Buses	Aggregated	5	DSL	513.605451	0.05961256	0.06786437	0.90705652	8.34255633	0.01942321	2055.90925	0.00276885	0.00636556	0.00609018	0.3231603
SAN DIEGO	2050	All Other Buses	Aggregated	10	DSL	1552.687	0.03740743	0.04258551	0.55767049	6.33441917	0.01605887	1699.79979	0.00173748	0.00559789	0.00535573	0.26718486
SAN DIEGO	2050	All Other Buses	Aggregated	15	DSL	1766.09323	0.02079646	0.02367518	0.30215217	4.4805397	0.01263698	1337.60013	0.00096594	0.00443489	0.00424304	0.21025211
SAN DIEGO	2050	All Other Buses	Aggregated	20	DSL	2051.16252	0.01412687	0.01608236	0.20179756	3.56823904	0.01079178	1142.28949	0.00065616	0.00376831	0.00360529	0.179552
SAN DIEGO	2050	All Other Buses	Aggregated	25	DSL	2494.85439	0.01109404	0.01262972	0.15423404	2.78670944	0.00941782	996.857862	0.00051529	0.00359815	0.00344249	0.15669217
SAN DIEGO	2050	All Other Buses	Aggregated	30	DSL	3401.96813	0.00897286	0.01021492	0.11832075	2.08404871	0.0082739	875.776448	0.00041677	0.00392441	0.00375464	0.13765986
SAN DIEGO	2050	All Other Buses	Aggregated	35	DSL	6257.55111	0.00738971	0.00841262	0.08918717	1.52501965	0.00739518	782.765911	0.00034323	0.0047471	0.00454174	0.1230399
SAN DIEGO	2050	All Other Buses	Aggregated	40	DSL	7439.48349	0.00634458	0.00722282	0.06683328	1.11213382	0.00678167	717.826251	0.00029469	0.0060662	0.00580378	0.11283229
SAN DIEGO	2050	All Other Buses	Aggregated	45	DSL	4715.31266	0.00583748	0.00664552	0.05125908	0.84430888	0.00643335	680.957469	0.00027114	0.00788174	0.00754078	0.10703703
SAN DIEGO	2050	All Other Buses	Aggregated	50	DSL	1392.08119	0.0058684	0.00668072	0.04246459	0.72176614	0.00635023	672.159564	0.00027257	0.01019369	0.00975272	0.10565412
SAN DIEGO	2050	All Other Buses	Aggregated	55	DSL	344.64416	0.00643734	0.00732842	0.04044979	0.74512389	0.00653231	691.432537	0.000299	0.01300207	0.01243961	0.10868357
SAN DIEGO	2050	All Other Buses	Aggregated	60	DSL	25.3185904	0.00754431	0.00858862	0.04521469	0.91233902	0.00697959	738.776388	0.00035041	0.01630687	0.01560144	0.11612536

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2050	All Other Buses	Aggregated	65	DSL	0.01205574	0.0091893	0.01046131	0.05675928	1.22520504	0.00769207	814.191116	0.00042682	0.0201081	0.01923823	0.12797951
SAN DIEGO	2050	All Other Buses	Aggregated	70	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	All Other Buses	Aggregated	75	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	All Other Buses	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	All Other Buses	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	All Other Buses	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	LDA	Aggregated	5	GAS	105408.487	0.01096051	0.01599355	0.67702787	0.03035536	0.00448405	453.12655	0.00404973	0.00339842	0.00312473	0.00518737
SAN DIEGO	2050	LDA	Aggregated	5	DSL	1316.07879	0.07853589	0.08940789	2.62374523	0.04143766	0.00366479	387.661066	0.00364784	0.00154722	0.00148029	0.06093492
SAN DIEGO	2050	LDA	Aggregated	10	GAS	354506.968	0.00691535	0.01009087	0.61879495	0.02629033	0.00364721	368.561131	0.00255512	0.00213828	0.00196607	0.00449273
SAN DIEGO	2050	LDA	Aggregated	10	DSL	4426.20052	0.05879113	0.06692979	1.96411735	0.03442619	0.00305312	322.95826	0.00273074	0.00145323	0.00139037	0.05076454
SAN DIEGO	2050	LDA	Aggregated	15	GAS	897492.838	0.00460278	0.00671637	0.56662034	0.02307817	0.00298778	301.924092	0.00170066	0.00141934	0.00130503	0.00394383
SAN DIEGO	2050	LDA	Aggregated	15	DSL	11205.6564	0.02870759	0.03268169	0.95904729	0.0230263	0.00251118	265.63225	0.00133341	0.00126701	0.00121222	0.04175369
SAN DIEGO	2050	LDA	Aggregated	20	GAS	2689864.37	0.00322059	0.00469947	0.51845972	0.02074728	0.00248329	250.944048	0.00118996	0.0009939	0.00091386	0.0035455
SAN DIEGO	2050	LDA	Aggregated	20	DSL	33584.3302	0.01116206	0.01270726	0.37286486	0.01514659	0.00205998	217.904695	0.00051846	0.00108106	0.0010343	0.03425158
SAN DIEGO	2050	LDA	Aggregated	25	GAS	7673731.97	0.00237706	0.0034686	0.47557272	0.01895	0.00212208	214.44241	0.00087829	0.00073424	0.0006751	0.00323836
SAN DIEGO	2050	LDA	Aggregated	25	DSL	95810.4622	0.00670056	0.00762814	0.22381821	0.01149655	0.00172676	182.656792	0.00031123	0.00092669	0.0008866	0.0287111
SAN DIEGO	2050	LDA	Aggregated	30	GAS	6699482.29	0.00185211	0.00270259	0.43767914	0.01755933	0.00188294	190.276871	0.00068433	0.00057222	0.00052613	0.0030007
SAN DIEGO	2050	LDA	Aggregated	30	DSL	83646.4574	0.0050615	0.00576218	0.16906568	0.00956276	0.00149569	158.214298	0.0002351	0.00082106	0.00078554	0.02486908
SAN DIEGO	2050	LDA	Aggregated	35	GAS	7695092.35	0.00152224	0.00222125	0.40388377	0.0165408	0.00174514	176.35101	0.00056244	0.00047046	0.00043257	0.00282664
SAN DIEGO	2050	LDA	Aggregated	35	DSL	96077.1573	0.00402469	0.00458185	0.13443147	0.00826794	0.00135208	143.022539	0.00018694	0.00074238	0.00071027	0.02248115
SAN DIEGO	2050	LDA	Aggregated	40	GAS	4660313.88	0.00131973	0.00192574	0.3736439	0.0158339	0.00168867	170.645153	0.00048762	0.00040805	0.00037519	0.00270584
SAN DIEGO	2050	LDA	Aggregated	40	DSL	58186.3985	0.00331775	0.00377704	0.11081608	0.00734102	0.00126524	133.837092	0.0001541	0.00068103	0.00065157	0.02103733
SAN DIEGO	2050	LDA	Aggregated	45	GAS	3419245.67	0.00120814	0.00176292	0.3469129	0.01537054	0.00169457	171.241576	0.00044639	0.00037338	0.00034331	0.00262666
SAN DIEGO	2050	LDA	Aggregated	45	DSL	42691.0282	0.00280886	0.0031977	0.09381636	0.00664359	0.00122213	129.27635	0.00013047	0.00063157	0.00060425	0.02032044
SAN DIEGO	2050	LDA	Aggregated	50	GAS	2237255.46	0.00116476	0.00169962	0.32239404	0.01521501	0.00174263	176.098139	0.00043036	0.00036042	0.0003314	0.00260007
SAN DIEGO	2050	LDA	Aggregated	50	DSL	27933.2769	0.00242722	0.00276323	0.08106656	0.00610201	0.00122524	129.605433	0.00011274	0.00059067	0.00056512	0.02037217
SAN DIEGO	2050	LDA	Aggregated	55	GAS	1939811.6	0.00119137	0.00173845	0.30202443	0.01510383	0.00181758	183.671434	0.00044019	0.00036704	0.00033748	0.0025811
SAN DIEGO	2050	LDA	Aggregated	55	DSL	24219.5384	0.00213168	0.00242677	0.07119253	0.00566076	0.00128211	135.62188	9.9012E-05	0.00055618	0.00053212	0.02131787
SAN DIEGO	2050	LDA	Aggregated	60	GAS	2210576.7	0.00127864	0.00186579	0.28239541	0.01545219	0.00189001	190.991193	0.00047244	0.00039432	0.00036256	0.00264062
SAN DIEGO	2050	LDA	Aggregated	60	DSL	27600.1789	0.00200794	0.00228591	0.0670576	0.00547734	0.00138997	147.030404	9.3265E-05	0.00054091	0.00051751	0.02311113
SAN DIEGO	2050	LDA	Aggregated	65	GAS	23592774.6	0.00144295	0.00210554	0.26395329	0.01619012	0.00194344	196.389831	0.00053315	0.00044691	0.00041091	0.00276671
SAN DIEGO	2050	LDA	Aggregated	65	DSL	294567.838	0.00200817	0.00228616	0.0670634	0.00548495	0.0015626	165.291931	9.3275E-05	0.00054105	0.00051765	0.02598159
SAN DIEGO	2050	LDT1	Aggregated	5	GAS	10777.8573	0.01175306	0.01715003	0.68421187	0.03331686	0.00517654	523.104121	0.00427661	0.00357959	0.0032913	0.00547282
SAN DIEGO	2050	LDT1	Aggregated	5	DSL	1.51047748	0.26814808	0.30526876	2.83901655	0.15525023	0.00685573	725.1984	0.01245497	0.00999789	0.00956538	0.11399109
SAN DIEGO	2050	LDT1	Aggregated	10	GAS	36247.7975	0.00741501	0.01081997	0.62529111	0.02885404	0.00420918	425.349554	0.00269812	0.00225227	0.00207088	0.00473976
SAN DIEGO	2050	LDT1	Aggregated	10	DSL	5.07999691	0.20069943	0.22848295	2.12505831	0.12945506	0.00577093	610.447738	0.0093221	0.00929874	0.00889648	0.09595388
SAN DIEGO	2050	LDT1	Aggregated	15	GAS	91767.2756	0.00493513	0.00720133	0.57251507	0.0253277	0.00344723	348.352681	0.00179576	0.001495	0.0013746	0.00416052
SAN DIEGO	2050	LDT1	Aggregated	15	DSL	12.8608497	0.09810749	0.11168886	1.03864064	0.08744679	0.00478505	506.161782	0.00455691	0.00806943	0.00772035	0.07956158
SAN DIEGO	2050	LDT1	Aggregated	20	GAS	275034.534	0.00345317	0.00503886	0.52386633	0.02276984	0.00286523	289.539868	0.00125652	0.00104689	0.00096257	0.00374034
SAN DIEGO	2050	LDT1	Aggregated	20	DSL	38.5450891	0.03826653	0.0435639	0.40496837	0.05844956	0.00393128	415.850547	0.00177741	0.00686775	0.00657065	0.06536591
SAN DIEGO	2050	LDT1	Aggregated	25	GAS	784627.406	0.00254876	0.00371915	0.48054655	0.02079761	0.00244857	247.434967	0.00092743	0.00077338	0.00071109	0.00341636
SAN DIEGO	2050	LDT1	Aggregated	25	DSL	109.962676	0.02301987	0.02620659	0.24361342	0.04508264	0.00329624	348.675693	0.00106923	0.00587837	0.00562407	0.05480696
SAN DIEGO	2050	LDT1	Aggregated	30	GAS	685011.859	0.0019859	0.00289782	0.44226078	0.01927142	0.00217265	219.552938	0.00072262	0.00060272	0.00055418	0.00316566
SAN DIEGO	2050	LDT1	Aggregated	30	DSL	96.0019192	0.01740443	0.01981379	0.18424278	0.03805873	0.00285031	301.5058	0.0008084	0.00520233	0.00497728	0.04739251
SAN DIEGO	2050	LDT1	Aggregated	35	GAS	786811.471	0.00163221	0.00238172	0.40811604	0.01815366	0.0020137	203.490232	0.00059392	0.00049554	0.00045563	0.00298204
SAN DIEGO	2050	LDT1	Aggregated	35	DSL	110.268764	0.0138521	0.0157697	0.14670643	0.03339768	0.00257252	272.120572	0.0006434	0.00470085	0.00449749	0.04277356
SAN DIEGO	2050	LDT1	Aggregated	40	GAS	476509.996	0.00141508	0.00206488	0.37756526	0.01737793	0.00194866	196.9178	0.00051491	0.00042981	0.00039519	0.00285462
SAN DIEGO	2050	LDT1	Aggregated	40	DSL	66.7811418	0.01143318	0.01301434	0.12115517	0.03009751	0.00240098	253.975716	0.00053099	0.0043121	0.00412556	0.03992145
SAN DIEGO	2050	LDT1	Aggregated	45	GAS	349612.662	0.00129543	0.00189028	0.35054864	0.01686929	0.00195547	197.60554	0.00047137	0.00039328	0.00036161	0.00277106
SAN DIEGO	2050	LDT1	Aggregated	45	DSL	48.9969423	0.00969274	0.01103454	0.10282611	0.02764598	0.00231496	244.875677	0.00045021	0.0040012	0.00382811	0.03849105
SAN DIEGO	2050	LDT1	Aggregated	50	GAS	228755.964	0.00124894	0.00182245	0.3257873	0.01669888	0.00201122	203.239546	0.00045445	0.00037964	0.00034906	0.00274307
SAN DIEGO	2050	LDT1	Aggregated	50	DSL	32.0593158	0.00839289	0.00955474	0.08916914	0.0257722	0.0023188	245.282471	0.00038983	0.00374699	0.0035849	0.03855499
SAN DIEGO	2050	LDT1	Aggregated	55	GAS	198342.782	0.00127739	0.00186396	0.30516066	0.01657591	0.00209708	211.916037	0.00046481	0.00038661	0.00035547	0.00272289
SAN DIEGO	2050	LDT1	Aggregated	55	DSL	27.797019	0.00739215	0.00841547	0.07871872	0.02426554	0.0024245	256.462805	0.00034335	0.00353607	0.0033831	0.04031238
SAN DIEGO	2050	LDT1	Aggregated	60	GAS	226028.1	0.00137097	0.00200052	0.28533582	0.01695842	0.00218087	220.383602	0.00049886	0.00041534	0.00038189	0.00278572
SAN DIEGO	2050	LDT1	Aggregated	60	DSL	31.6770157	0.00698328	0.00795	0.07460457	0.02371699	0.00262623	277.801718	0.00032436	0.0034486	0.00329942	0.04366656
SAN DIEGO	2050	LDT1	Aggregated	65	GAS	2412325.26	0.00154724	0.00225772	0.26673692	0.01776926	0.0022433	226.691813	0.000563	0.00047073	0.00043282	0.00291889
SAN DIEGO	2050	LDT1	Aggregated	65	DSL	338.078607	0.00700519	0.00797494	0.07516789	0.02387687	0.00294984	312.033847	0.00032538	0.00346202	0.00331225	0.04904738

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2050	LDT2	Aggregated	5	GAS	29888.9075	0.01554042	0.02267654	0.77984481	0.03024946	0.00512455	517.850145	0.00547252	0.0034647	0.00318566	0.00513811
SAN DIEGO	2050	LDT2	Aggregated	5	DSL	310.746173	0.2651557	0.30186213	2.73508035	0.15217467	0.00478499	506.155106	0.01231598	0.00935008	0.0089456	0.07956053
SAN DIEGO	2050	LDT2	Aggregated	10	GAS	100521.564	0.00980453	0.01430675	0.712697	0.02619771	0.00416651	421.038218	0.00345265	0.00217998	0.00200441	0.00444991
SAN DIEGO	2050	LDT2	Aggregated	10	DSL	1045.09311	0.19849322	0.22597134	2.04746003	0.12641724	0.00402784	426.064425	0.00921963	0.00878625	0.00840616	0.06697139
SAN DIEGO	2050	LDT2	Aggregated	15	GAS	254486.912	0.00652554	0.00952206	0.65255012	0.02299616	0.00341206	344.79831	0.00229796	0.00144702	0.00133048	0.00390611
SAN DIEGO	2050	LDT2	Aggregated	15	DSL	2645.82551	0.09692226	0.11033955	0.9997519	0.08453975	0.00333974	353.277628	0.00450185	0.00766201	0.00733055	0.05553032
SAN DIEGO	2050	LDT2	Aggregated	20	GAS	762719.486	0.004566	0.00666269	0.59709896	0.02067373	0.00283618	286.604049	0.00160791	0.00101328	0.00093168	0.00351162
SAN DIEGO	2050	LDT2	Aggregated	20	DSL	7929.76998	0.0376834	0.04290004	0.38870142	0.05559291	0.00274385	290.244542	0.00175032	0.00653832	0.00625548	0.0456224
SAN DIEGO	2050	LDT2	Aggregated	25	GAS	2175910.79	0.00337013	0.00491768	0.54772166	0.01888301	0.0024239	244.941608	0.00118678	0.00074855	0.00068827	0.00320745
SAN DIEGO	2050	LDT2	Aggregated	25	DSL	22622.304	0.02262054	0.02575198	0.23332941	0.04218296	0.00230062	243.359586	0.00105068	0.00560506	0.00536259	0.03825274
SAN DIEGO	2050	LDT2	Aggregated	30	GAS	1899659.22	0.00262587	0.00383167	0.50408347	0.01749731	0.00215082	217.346189	0.0009247	0.00058338	0.00053639	0.00297207
SAN DIEGO	2050	LDT2	Aggregated	30	DSL	19750.1979	0.01708698	0.01945239	0.17625232	0.0350773	0.00198939	210.437171	0.00079366	0.00496641	0.00475157	0.03307779
SAN DIEGO	2050	LDT2	Aggregated	35	GAS	2181967.59	0.0021582	0.00314925	0.46516518	0.01648243	0.00199348	201.446644	0.00076001	0.00047963	0.00044101	0.00279969
SAN DIEGO	2050	LDT2	Aggregated	35	DSL	22685.2748	0.01358665	0.0154675	0.14014787	0.03031876	0.0017955	189.927635	0.00063107	0.00449065	0.00429639	0.02985398
SAN DIEGO	2050	LDT2	Aggregated	40	GAS	1321446.63	0.0018711	0.0027303	0.43034311	0.0157781	0.00192908	194.9393	0.0006589	0.00041601	0.00038251	0.00268005
SAN DIEGO	2050	LDT2	Aggregated	40	DSL	13738.6916	0.01119994	0.01275039	0.11553041	0.02691162	0.00167578	177.26336	0.00052022	0.00411957	0.00394136	0.02786333
SAN DIEGO	2050	LDT2	Aggregated	45	GAS	969537.846	0.00171288	0.00249944	0.39955058	0.0153163	0.00193572	195.610016	0.00060319	0.00038066	0.00035	0.00260161
SAN DIEGO	2050	LDT2	Aggregated	45	DSL	10079.9996	0.00948185	0.01079445	0.09780996	0.02434744	0.00161573	170.911952	0.00044041	0.00382028	0.00365501	0.02686498
SAN DIEGO	2050	LDT2	Aggregated	50	GAS	634380.811	0.00165141	0.00240973	0.37132621	0.01516154	0.00199093	201.188752	0.00058154	0.00036745	0.00033786	0.00257532
SAN DIEGO	2050	LDT2	Aggregated	50	DSL	6595.47055	0.00819327	0.0093275	0.08452047	0.02235573	0.00161842	171.195875	0.00038056	0.00357268	0.00341813	0.02690961
SAN DIEGO	2050	LDT2	Aggregated	55	GAS	550039.67	0.00168904	0.00246465	0.34782146	0.01505004	0.00207551	209.736485	0.00059479	0.0003742	0.00034406	0.00255639
SAN DIEGO	2050	LDT2	Aggregated	55	DSL	5718.60053	0.00719533	0.00819141	0.07422971	0.02073259	0.00169219	178.999234	0.00033421	0.00336371	0.0032182	0.02813619
SAN DIEGO	2050	LDT2	Aggregated	60	GAS	626815.963	0.00181279	0.00264521	0.32522419	0.01539731	0.00215844	218.116261	0.00063837	0.00040201	0.00036963	0.00261538
SAN DIEGO	2050	LDT2	Aggregated	60	DSL	6516.82105	0.00677737	0.00771558	0.06992278	0.02005647	0.00183298	193.892813	0.0003148	0.00327092	0.00312942	0.03047725
SAN DIEGO	2050	LDT2	Aggregated	65	GAS	6689805.31	0.00204583	0.00298528	0.30402105	0.01613335	0.00222049	224.386763	0.00072044	0.00045562	0.00041893	0.00274038
SAN DIEGO	2050	LDT2	Aggregated	65	DSL	69551.9365	0.00677781	0.00771608	0.06993419	0.02008202	0.00205885	217.785264	0.00031482	0.00327119	0.00312968	0.03423281
SAN DIEGO	2050	LHD1	Aggregated	5	GAS	35487.1396	0.02075347	0.03028341	0.21428272	0.21414473	0.01494257	1509.9894	0.00666657	0.00776075	0.00713572	0.01460038
SAN DIEGO	2050	LHD1	Aggregated	5	DSL	25844.246	0.75872432	0.8637572	3.55643666	0.22716937	0.00894604	946.31122	0.03524129	0.01208504	0.01156224	0.14874695
SAN DIEGO	2050	LHD1	Aggregated	10	GAS	92535.5866	0.01309106	0.01910244	0.19562473	0.18536903	0.01213026	1225.79786	0.0042052	0.00488304	0.00448978	0.01263846
SAN DIEGO	2050	LHD1	Aggregated	10	DSL	85943.8973	0.56792942	0.64654988	2.66215184	0.18984524	0.00752055	795.522232	0.02637924	0.01130765	0.01081848	0.12504502
SAN DIEGO	2050	LHD1	Aggregated	15	GAS	210716.008	0.00868738	0.0126766	0.17859556	0.16373535	0.00992015	1002.45997	0.00279062	0.00324125	0.00298021	0.01116348
SAN DIEGO	2050	LHD1	Aggregated	15	DSL	186129.861	0.27745752	0.31586694	1.30071283	0.12902997	0.00491155	519.542588	0.01288737	0.00984082	0.00941511	0.08166486
SAN DIEGO	2050	LHD1	Aggregated	20	GAS	243480.711	0.00607216	0.00886049	0.16323729	0.14730664	0.00824602	833.284073	0.00195054	0.00226971	0.00208691	0.01004336
SAN DIEGO	2050	LHD1	Aggregated	20	DSL	204058.447	0.10803783	0.12299389	0.50664939	0.08697102	0.00418635	442.831602	0.00501815	0.00838838	0.00802551	0.06960696
SAN DIEGO	2050	LHD1	Aggregated	25	GAS	187555.212	0.00446542	0.00651593	0.14921572	0.13524137	0.00704829	712.249426	0.00143441	0.00167672	0.00154169	0.00922072
SAN DIEGO	2050	LHD1	Aggregated	25	DSL	218396.977	0.0649182	0.07390506	0.30455442	0.06766798	0.00371289	392.749457	0.00301533	0.00718646	0.00687557	0.06173475
SAN DIEGO	2050	LHD1	Aggregated	30	GAS	165860.361	0.00348322	0.0050827	0.13748665	0.12510633	0.00625417	632.001962	0.0011189	0.00130673	0.00120149	0.00852972
SAN DIEGO	2050	LHD1	Aggregated	30	DSL	184354.718	0.04905854	0.05584988	0.23023531	0.05755526	0.00337171	356.658966	0.00227868	0.00636446	0.00608914	0.05606182
SAN DIEGO	2050	LHD1	Aggregated	35	GAS	61975.9919	0.00284415	0.00415018	0.12607324	0.119007	0.00579748	585.851949	0.00091362	0.00107435	0.00098783	0.00811383
SAN DIEGO	2050	LHD1	Aggregated	35	DSL	97291.1416	0.03902601	0.04442852	0.18323973	0.05091584	0.00337171	356.658966	0.00181268	0.0057532	0.00550432	0.05606182
SAN DIEGO	2050	LHD1	Aggregated	40	GAS	18293.8995	0.00243363	0.00355114	0.11517647	0.11614685	0.00561205	567.113824	0.00078175	0.00093184	0.0008568	0.00791877
SAN DIEGO	2050	LHD1	Aggregated	40	DSL	53409.6566	0.03218777	0.03664364	0.15123092	0.04624566	0.00327941	346.894985	0.00149506	0.00527763	0.00504933	0.05452706
SAN DIEGO	2050	LHD1	Aggregated	45	GAS	22521.4002	0.00223442	0.00326046	0.1072443	0.11230042	0.00563177	569.106008	0.00071776	0.00085265	0.00078398	0.00765656
SAN DIEGO	2050	LHD1	Aggregated	45	DSL	57646.5847	0.02726947	0.03104448	0.12824175	0.04277837	0.0031988	338.368763	0.00126661	0.00489541	0.00468364	0.05318686
SAN DIEGO	2050	LHD1	Aggregated	50	GAS	166294.881	0.00218566	0.0031893	0.10108056	0.10872675	0.00579706	585.809494	0.00070209	0.00082307	0.00075679	0.00741297
SAN DIEGO	2050	LHD1	Aggregated	50	DSL	222591.73	0.02358664	0.02685182	0.11107347	0.04013955	0.00335352	354.73442	0.00109555	0.00458072	0.00438256	0.05575931
SAN DIEGO	2050	LHD1	Aggregated	55	GAS	45738.9452	0.00218879	0.00319387	0.09281012	0.11189159	0.0060351	609.863789	0.0007031	0.00083818	0.00077068	0.00762865
SAN DIEGO	2050	LHD1	Aggregated	55	DSL	134046.762	0.02074234	0.02361378	0.09788097	0.03813281	0.00350431	370.68488	0.00096344	0.00431695	0.0041302	0.0582665
SAN DIEGO	2050	LHD2	Aggregated	5	GAS	6284.70974	0.02056563	0.03000932	0.21511644	0.23844902	0.01713315	1731.35405	0.00657551	0.00777493	0.00714876	0.0158065
SAN DIEGO	2050	LHD2	Aggregated	5	DSL	10199.4305	0.76180316	0.86726225	3.60817441	0.25434882	0.00948961	1003.80928	0.0353843	0.02980436	0.02851504	0.15778484
SAN DIEGO	2050	LHD2	Aggregated	10	GAS	16387.8889	0.01297257	0.01892955	0.19638586	0.2063351	0.01390854	1405.49761	0.00414776	0.00489197	0.00449798	0.01367771
SAN DIEGO	2050	LHD2	Aggregated	10	DSL	33917.7551	0.57005146	0.64896569	2.70020203	0.21674236	0.00843371	892.116666	0.0264778	0.02776286	0.02656186	0.14022832
SAN DIEGO	2050	LHD2	Aggregated	15	GAS	37317.4328	0.00860875	0.01256187	0.17929043	0.18222486	0.0113744	1149.41594	0.0027525	0.00324717	0.00298566	0.01207947
SAN DIEGO	2050	LHD2	Aggregated	15	DSL	73456.1408	0.27907626	0.31770977	1.3225647	0.15488363	0.00561407	593.855238	0.01296256	0.02411026	0.02306726	0.09334577
SAN DIEGO	2050	LHD2	Aggregated	20	GAS	43120.0039	0.00601721	0.00878029	0.16387241	0.16402544	0.00945482	955.437067	0.0019239	0.00227385	0.00209073	0.01087305
SAN DIEGO	2050	LHD2	Aggregated	20	DSL	80531.6566	0.10932716	0.12446171	0.51890523	0.11241751	0.00478839	506.51483	0.00507804	0.02052804	0.01964001	0.07961708
SAN DIEGO	2050	LHD2	Aggregated	25	GAS	33215.6967	0.004425	0.00645695	0.14979629	0.15104061	0.00808149	816.657971	0.00141482	0.00167979	0.0015445	0.0100123
SAN DIEGO	2050	LHD2	Aggregated	25	DSL	86190.357	0.0659581	0.07508891								

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2050	LHD2	Aggregated	30	GAS	29373.5769	0.00345169	0.0050367	0.13802158	0.13965043	0.00717096	724.646214	0.00110362	0.00130912	0.00120369	0.00925726
SAN DIEGO	2050	LHD2	Aggregated	30	DSL	72755.581	0.04992935	0.05684125	0.23780639	0.08420333	0.00384834	407.076336	0.00231912	0.01555648	0.01488351	0.06398673
SAN DIEGO	2050	LHD2	Aggregated	35	GAS	10975.8387	0.00281841	0.00411262	0.12656377	0.13346351	0.00664733	671.731707	0.00090114	0.00107632	0.00098963	0.00884714
SAN DIEGO	2050	LHD2	Aggregated	35	DSL	38395.9445	0.03978875	0.04529685	0.18993158	0.07854421	0.00384834	407.076336	0.00184811	0.01405832	0.01345016	0.06398673
SAN DIEGO	2050	LHD2	Aggregated	40	GAS	3239.81729	0.0024116	0.003519	0.11562459	0.13116017	0.00643474	650.248537	0.00077107	0.00093355	0.00085836	0.00869445
SAN DIEGO	2050	LHD2	Aggregated	40	DSL	21078.1185	0.03288687	0.03743951	0.15746263	0.07491047	0.00370778	392.207973	0.00152753	0.01289587	0.012338	0.06164963
SAN DIEGO	2050	LHD2	Aggregated	45	GAS	3988.5002	0.0022142	0.00323095	0.10766156	0.12630154	0.00645736	652.534786	0.00070795	0.00085421	0.00078542	0.00837238
SAN DIEGO	2050	LHD2	Aggregated	45	DSL	22750.222	0.02794009	0.03180793	0.13435062	0.07240997	0.00356408	377.008197	0.00129776	0.01196501	0.01144741	0.05926044
SAN DIEGO	2050	LHD2	Aggregated	50	GAS	29450.5296	0.00216587	0.00316044	0.10147384	0.12137583	0.00664691	671.689123	0.0006925	0.00082458	0.00075817	0.00804586
SAN DIEGO	2050	LHD2	Aggregated	50	DSL	87845.8158	0.02425991	0.0276183	0.11738173	0.07077378	0.00369535	390.894044	0.00112683	0.01120251	0.0107179	0.0614431
SAN DIEGO	2050	LHD2	Aggregated	55	GAS	8100.2864	0.00216898	0.00316496	0.09317122	0.12637069	0.00691987	699.272645	0.00069349	0.00083971	0.00077209	0.00837696
SAN DIEGO	2050	LHD2	Aggregated	55	DSL	52901.5484	0.02144971	0.02441906	0.10475309	0.06997362	0.00382487	404.594163	0.0009963	0.01056819	0.01011101	0.06359657
SAN DIEGO	2050	MCY	Aggregated	5	GAS	1035.10153	12.4835545	15.6803667	41.2544217	1.64885641	0.00529167	534.73889	1.86416776	0.0139546	0.01300854	0.09505495
SAN DIEGO	2050	MCY	Aggregated	10	GAS	3481.22543	8.06153331	10.1257999	31.8780453	1.47353586	0.00419391	423.806488	1.20379372	0.00896994	0.00836181	0.08494618
SAN DIEGO	2050	MCY	Aggregated	15	GAS	8813.29613	5.48565985	6.89024795	25.7275102	1.33818344	0.0033835	341.911964	0.81912857	0.00608169	0.00566938	0.07714182
SAN DIEGO	2050	MCY	Aggregated	20	GAS	26414.2177	3.94447824	4.95437588	21.7256861	1.2431944	0.00279506	282.448882	0.58897901	0.00434793	0.00405316	0.07166453
SAN DIEGO	2050	MCY	Aggregated	25	GAS	75355.3337	2.9889889	3.75420101	18.9556675	1.17339532	0.00238097	240.604085	0.44629542	0.00327661	0.00305447	0.06763958
SAN DIEGO	2050	MCY	Aggregated	30	GAS	65788.2925	2.38449498	2.99491303	17.0031193	1.12273771	0.00210569	212.785801	0.35602779	0.00260203	0.00242563	0.06471825
SAN DIEGO	2050	MCY	Aggregated	35	GAS	75565.0906	2.00345688	2.51630253	15.6790574	1.0895451	0.00194301	196.346367	0.29912848	0.00217679	0.00202922	0.06280386
SAN DIEGO	2050	MCY	Aggregated	40	GAS	45763.8485	1.77209289	2.22569136	14.8574438	1.07101882	0.0018697	188.938417	0.26457914	0.00191785	0.00178783	0.06173507
SAN DIEGO	2050	MCY	Aggregated	45	GAS	33576.6743	1.64811311	2.06996034	14.4650448	1.06373724	0.00186453	188.415742	0.24606473	0.00177908	0.00165846	0.06131461
SAN DIEGO	2050	MCY	Aggregated	50	GAS	21969.6404	1.61517152	2.02857117	14.5919205	1.0712286	0.00191162	193.174952	0.2411428	0.00173724	0.00161947	0.06174584
SAN DIEGO	2050	MCY	Aggregated	55	GAS	19048.7694	1.65548098	2.07919477	15.0908631	1.07922456	0.00198764	200.85677	0.24716025	0.00178539	0.00166435	0.06220637
SAN DIEGO	2050	MCY	Aggregated	60	GAS	21707.6574	1.79511387	2.25455504	16.5172864	1.11015332	0.00208372	210.566338	0.26800458	0.00193083	0.00179993	0.06398889
SAN DIEGO	2050	MCY	Aggregated	65	GAS	231678.85	2.05448766	2.58029641	19.2086282	1.16029591	0.00218925	221.22951	0.30672438	0.00219711	0.00204816	0.06687905
SAN DIEGO	2050	MDV	Aggregated	5	GAS	19117.5289	0.01567704	0.0228759	0.78108567	0.03142282	0.00620663	627.197519	0.00552236	0.00346626	0.0031871	0.00526123
SAN DIEGO	2050	MDV	Aggregated	5	DSL	698.333982	0.08543557	0.09726271	2.850431	0.04458207	0.00585076	618.89234	0.00396832	0.00171694	0.00164266	0.09728126
SAN DIEGO	2050	MDV	Aggregated	10	GAS	64295.5551	0.00989073	0.01443253	0.71383258	0.02721389	0.00504493	509.804714	0.00348409	0.00218097	0.00200532	0.00455654
SAN DIEGO	2050	MDV	Aggregated	10	DSL	2348.61793	0.06395536	0.07280892	2.13380786	0.03704995	0.00496872	525.590246	0.0029706	0.0016104	0.00154074	0.08261547
SAN DIEGO	2050	MDV	Aggregated	15	GAS	162774.798	0.00658292	0.00960578	0.65359106	0.02388814	0.00413042	417.390587	0.00231889	0.00144767	0.00133108	0.00399971
SAN DIEGO	2050	MDV	Aggregated	15	DSL	5945.91349	0.03123181	0.03555534	1.04192794	0.0248019	0.00421381	445.735824	0.00145066	0.00140311	0.00134242	0.07006346
SAN DIEGO	2050	MDV	Aggregated	20	GAS	487850.277	0.00460614	0.00672127	0.59805116	0.02147563	0.0034333	346.944312	0.00162255	0.00101374	0.0009321	0.00359577
SAN DIEGO	2050	MDV	Aggregated	20	DSL	17820.4217	0.01214639	0.01382786	0.40511472	0.01633688	0.00349955	370.181837	0.00056418	0.00119677	0.001145	0.05818743
SAN DIEGO	2050	MDV	Aggregated	25	GAS	1391755.03	0.00339976	0.00496092	0.5485948	0.01961546	0.00293427	296.516571	0.00119759	0.00074889	0.00068858	0.00328431
SAN DIEGO	2050	MDV	Aggregated	25	DSL	50838.6748	0.00729261	0.00830215	0.24318892	0.01241728	0.00295923	313.026834	0.00033873	0.00102566	0.00098129	0.04920346
SAN DIEGO	2050	MDV	Aggregated	30	GAS	1215059.14	0.00264896	0.00386536	0.50488695	0.01817601	0.00260369	270.109905	0.00093312	0.00058364	0.00053663	0.00304329
SAN DIEGO	2050	MDV	Aggregated	30	DSL	44384.2452	0.0055091	0.00627174	0.18370297	0.01034206	0.00255585	270.357702	0.00025589	0.0009086	0.0008693	0.04249647
SAN DIEGO	2050	MDV	Aggregated	35	GAS	1395629.08	0.00217718	0.00317693	0.46590653	0.01712177	0.00241328	243.86885	0.00076693	0.00047985	0.0004412	0.00286677
SAN DIEGO	2050	MDV	Aggregated	35	DSL	50980.1878	0.00438091	0.00498737	0.14607503	0.00895356	0.00231908	245.312228	0.00020348	0.00082147	0.00078593	0.03855967
SAN DIEGO	2050	MDV	Aggregated	40	GAS	845223.07	0.00188755	0.00275431	0.43102882	0.01639012	0.00233547	236.005463	0.0006649	0.0004162	0.00038268	0.00274427
SAN DIEGO	2050	MDV	Aggregated	40	DSL	30874.7012	0.0036117	0.00411168	0.12041937	0.00796046	0.00216918	229.455846	0.00016776	0.00075357	0.00072098	0.03606726
SAN DIEGO	2050	MDV	Aggregated	45	GAS	620135.339	0.00172794	0.00252141	0.40018735	0.0159104	0.00234354	236.821394	0.00060868	0.00038083	0.00035016	0.00266395
SAN DIEGO	2050	MDV	Aggregated	45	DSL	22652.5919	0.00305807	0.00348141	0.10195243	0.00721398	0.00208753	220.818118	0.00014204	0.0006989	0.00066867	0.03470953
SAN DIEGO	2050	MDV	Aggregated	50	GAS	405762.354	0.00166593	0.00243092	0.37191767	0.01574964	0.00241072	243.610632	0.00058684	0.00036762	0.00033801	0.00263703
SAN DIEGO	2050	MDV	Aggregated	50	DSL	14821.8759	0.00264297	0.00300885	0.0881043	0.00663504	0.00209799	221.924631	0.00012276	0.00065376	0.00062548	0.03488346
SAN DIEGO	2050	MDV	Aggregated	55	GAS	351816.114	0.00170389	0.00248632	0.34837643	0.01563381	0.00251256	253.901853	0.00060021	0.00037437	0.00034422	0.00261765
SAN DIEGO	2050	MDV	Aggregated	55	DSL	12851.3025	0.00232167	0.00264306	0.07738262	0.00616383	0.00221411	234.208013	0.00010784	0.00061578	0.00058914	0.03681424
SAN DIEGO	2050	MDV	Aggregated	60	GAS	400923.73	0.00182872	0.00266847	0.32574293	0.01599454	0.00261322	264.073289	0.00064418	0.00040219	0.0003698	0.00267805
SAN DIEGO	2050	MDV	Aggregated	60	DSL	14645.1284	0.00218739	0.00249019	0.07289883	0.00596982	0.00239743	253.600149	0.0001016	0.00059911	0.00057319	0.03986241
SAN DIEGO	2050	MDV	Aggregated	65	GAS	4278930.11	0.00206382	0.00301152	0.30450518	0.01675915	0.00268917	271.747871	0.000727	0.00045583	0.00041912	0.00280605
SAN DIEGO	2050	MDV	Aggregated	65	DSL	156302.748	0.00218813	0.00249105	0.07291809	0.00598117	0.00269198	284.757422	0.00010163	0.00059957	0.00057363	0.0447599
SAN DIEGO	2050	MH	Aggregated	5	GAS	599.051814	0.04052463	0.05913345	0.2683584	0.37203374	0.0307948	3111.90234	0.01451387	0.00776421	0.00713891	0.03070067
SAN DIEGO	2050	MH	Aggregated	5	DSL	249.994304	0.76516219	0.87108628	2.15250697	10.5920787	0.01544976	1634.27375	0.03554032	0.03502568	0.03351048	0.25688507
SAN DIEGO	2050	MH	Aggregated	10	GAS	3011.43875	0.02549792	0.03720651	0.24439418	0.32330475	0.02499871	2526.1913	0.00913206	0.00488522	0.00449178	0.02667949
SAN DIEGO	2050	MH	Aggregated	10	DSL	1244.37747	0.57282229	0.65212009	1.61204761	8.80453537	0.01402845	1483.92759	0.0266065	0.0329604	0.03153455	0.23325275
SAN DIEGO	2050	MH	Aggregated	15	GAS	3803.96348	0.01696647	0.02475743	0.22370122	0.28400542	0.02044378	2065.90251	0.00607653	0.00324269	0.00298154	0.02343647
SAN DIEGO	2050	MH	Aggregated	15	DSL	1679.47768	0.279846	0.31858606	0.78863812	5.89155966	0.01151858	1218.43318	0.01299831	0.02883478	0.0275874	0.19152073
SAN DIEGO	2050	MH	Aggregated	20	GAS	3945.64433	0.01187581	0.01732915	0							

Region	Calendar Year	Vehicle Categ	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2050	MH	Aggregated	20	DSL	1781.14711	0.10914105	0.12424983	0.30857424	3.88137541	0.00945236	999.869334	0.00506939	0.02471574	0.02364655	0.15716554
SAN DIEGO	2050	MH	Aggregated	25	GAS	4396.36005	0.00876809	0.01279437	0.18787398	0.23261701	0.01452508	1467.801	0.00314028	0.00167747	0.00154237	0.01919583
SAN DIEGO	2050	MH	Aggregated	25	DSL	1854.99408	0.06584771	0.07496324	0.18669345	2.94963752	0.00847838	896.842155	0.0030585	0.02134691	0.02042346	0.1409711
SAN DIEGO	2050	MH	Aggregated	30	GAS	4970.71128	0.00683726	0.00997692	0.17305259	0.21543467	0.01288851	1302.42097	0.00244876	0.00130732	0.00120203	0.01777793
SAN DIEGO	2050	MH	Aggregated	30	DSL	2230.4801	0.04990577	0.0568144	0.14201195	2.45624683	0.00795825	841.821977	0.00231803	0.0190985	0.01827231	0.13232269
SAN DIEGO	2050	MH	Aggregated	35	GAS	6177.83999	0.00560961	0.00818552	0.15941913	0.20355863	0.0119474	1207.31884	0.00200908	0.00107483	0.00098827	0.0167979
SAN DIEGO	2050	MH	Aggregated	35	DSL	2630.0298	0.03977789	0.04528448	0.11376055	2.12546312	0.00752659	796.16205	0.00184761	0.01749014	0.01673352	0.12514559
SAN DIEGO	2050	MH	Aggregated	40	GAS	7690.77397	0.00485419	0.00708323	0.1472243	0.19557444	0.01156538	1168.715	0.00173853	0.00093226	0.00085718	0.01613904
SAN DIEGO	2050	MH	Aggregated	40	DSL	3264.77258	0.032845	0.03739185	0.09454704	1.88856619	0.00718343	759.862375	0.00152559	0.01631797	0.01561206	0.11943978
SAN DIEGO	2050	MH	Aggregated	45	GAS	7013.4603	0.004449	0.00649197	0.13685276	0.18936652	0.01160611	1172.83052	0.00159341	0.00085303	0.00078433	0.01562675
SAN DIEGO	2050	MH	Aggregated	45	DSL	2673.41584	0.02783978	0.03169374	0.08079436	1.70813706	0.00692876	732.922952	0.0012931	0.01546686	0.01479777	0.11520528
SAN DIEGO	2050	MH	Aggregated	50	GAS	6825.53825	0.00428457	0.00625204	0.12706659	0.18817771	0.01194683	1207.26184	0.00153452	0.00082344	0.00075712	0.01552865
SAN DIEGO	2050	MH	Aggregated	50	DSL	2991.98708	0.02408127	0.02741492	0.07058053	1.5716423	0.00676257	715.343781	0.00111853	0.01486637	0.01422326	0.11244208
SAN DIEGO	2050	MH	Aggregated	55	GAS	8927.18234	0.00433969	0.00633247	0.11795078	0.1907777	0.01243757	1256.8521	0.00155426	0.00083856	0.00077102	0.0157432
SAN DIEGO	2050	MH	Aggregated	55	DSL	4384.48593	0.02117388	0.02410506	0.06278904	1.46276637	0.00668487	707.124861	0.00098349	0.01447075	0.01384476	0.11115018
SAN DIEGO	2050	MH	Aggregated	60	GAS	10301.5611	0.00464981	0.00678499	0.11007507	0.19512651	0.01294197	1307.82332	0.00166532	0.00090088	0.00082832	0.01610207
SAN DIEGO	2050	MH	Aggregated	60	DSL	5268.69461	0.01994167	0.02270227	0.05974574	1.41581912	0.00669566	708.266192	0.00092625	0.0145517	0.0139222	0.11132958
SAN DIEGO	2050	MH	Aggregated	65	GAS	1609.74932	0.00530653	0.00774328	0.103959	0.1993959	0.01333733	1347.7756	0.00190053	0.00102102	0.00093879	0.01645439
SAN DIEGO	2050	MH	Aggregated	65	DSL	829.14273	0.01992438	0.02268258	0.06015155	1.41346197	0.00679494	718.767776	0.00092545	0.01502815	0.01437804	0.11298028
SAN DIEGO	2050	Motor Coach	Aggregated	5	DSL	280.157472	0.11231085	0.12785736	1.91704422	11.8826878	0.02746914	2907.55485	0.00521655	0.00911988	0.00872536	0.45702713
SAN DIEGO	2050	Motor Coach	Aggregated	10	DSL	637.016899	0.07047609	0.08023166	1.17862445	8.94076234	0.02271113	2403.9296	0.00327343	0.00802006	0.00767311	0.37786426
SAN DIEGO	2050	Motor Coach	Aggregated	15	DSL	595.717622	0.0391808	0.04460435	0.63859204	6.24896549	0.01787176	1891.69135	0.00181985	0.00635383	0.00607896	0.29734754
SAN DIEGO	2050	Motor Coach	Aggregated	20	DSL	870.349371	0.0266152	0.03029938	0.42649476	4.93527178	0.0152622	1615.47468	0.00123621	0.00539882	0.00516527	0.25393012
SAN DIEGO	2050	Motor Coach	Aggregated	25	DSL	765.51238	0.02090131	0.02379455	0.32597028	3.84108661	0.01331908	1409.79905	0.00097081	0.00515503	0.00493203	0.22160078
SAN DIEGO	2050	Motor Coach	Aggregated	30	DSL	423.107062	0.01690499	0.01924504	0.25006834	2.85950139	0.01170131	1238.56053	0.00078519	0.00562247	0.00537924	0.19468447
SAN DIEGO	2050	Motor Coach	Aggregated	35	DSL	565.65523	0.01392231	0.01584949	0.18849514	2.07165637	0.01045859	1107.02105	0.00064666	0.00680112	0.00650691	0.17400829
SAN DIEGO	2050	Motor Coach	Aggregated	40	DSL	523.596099	0.01195328	0.01360789	0.14125068	1.47973553	0.00959092	1015.18061	0.0005552	0.008691	0.00831503	0.15957225
SAN DIEGO	2050	Motor Coach	Aggregated	45	DSL	697.502004	0.01099788	0.01252025	0.10833496	1.08486437	0.00909832	963.039196	0.00051082	0.0112921	0.01080361	0.15137635
SAN DIEGO	2050	Motor Coach	Aggregated	50	DSL	1026.64388	0.01105614	0.01258657	0.08974798	0.88662082	0.00898077	950.596822	0.00051353	0.01460442	0.01397264	0.14942058
SAN DIEGO	2050	Motor Coach	Aggregated	55	DSL	2464.67331	0.01212803	0.01380684	0.08548975	0.88406894	0.00923827	977.853485	0.00056332	0.01862796	0.01782212	0.15370495
SAN DIEGO	2050	Motor Coach	Aggregated	60	DSL	8993.70385	0.01421357	0.01618107	0.09556026	1.0771231	0.00987084	1044.80919	0.00066018	0.02336272	0.02235206	0.16422945
SAN DIEGO	2050	Motor Coach	Aggregated	65	DSL	16477.7466	0.01731275	0.01970925	0.11995951	1.46580162	0.01087846	1151.46392	0.00080413	0.0288087	0.02756245	0.18099409
SAN DIEGO	2050	Motor Coach	Aggregated	70	DSL	202.502887	0.02142481	0.02439051	0.1586802	1.46276617	0.01087846	1151.46392	0.00099513	0.0288087	0.02756245	0.18099409
SAN DIEGO	2050	Motor Coach	Aggregated	75	DSL	0.06416185	0.02655031	0.03022551	0.21172694	1.46327033	0.01087846	1151.46392	0.00123319	0.0288087	0.02756245	0.18099409
SAN DIEGO	2050	Motor Coach	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	Motor Coach	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	Motor Coach	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	OBUS	Aggregated	5	GAS	513.547962	0.04112667	0.06001195	0.29941023	0.84576423	0.03079801	3112.22735	0.01166802	0.00771897	0.00709731	0.04140156
SAN DIEGO	2050	OBUS	Aggregated	10	GAS	2581.61013	0.02587672	0.03775925	0.27267311	0.73498601	0.02500137	2526.45953	0.00734146	0.00485676	0.00446561	0.03597879
SAN DIEGO	2050	OBUS	Aggregated	15	GAS	3261.01624	0.01721852	0.02512523	0.24958575	0.64564474	0.02044599	2066.12599	0.00488505	0.0032238	0.00296417	0.03160538
SAN DIEGO	2050	OBUS	Aggregated	20	GAS	3382.4747	0.01205224	0.01758659	0.22843641	0.57965699	0.01699537	1717.43043	0.00341933	0.00225749	0.00207568	0.02837517
SAN DIEGO	2050	OBUS	Aggregated	25	GAS	3768.85888	0.00889835	0.01298445	0.20961293	0.52882071	0.0145267	1467.96487	0.00252454	0.0016677	0.00153339	0.02588665
SAN DIEGO	2050	OBUS	Aggregated	30	GAS	4261.23181	0.00693884	0.01012514	0.19307656	0.48975918	0.01288996	1302.56748	0.00196861	0.0012997	0.00119502	0.02397453
SAN DIEGO	2050	OBUS	Aggregated	35	GAS	5296.06465	0.00569294	0.00830713	0.17786557	0.46276074	0.01194874	1207.45442	0.00161514	0.00106857	0.00098251	0.02265291
SAN DIEGO	2050	OBUS	Aggregated	40	GAS	6593.05457	0.00492631	0.00718846	0.16425967	0.44460985	0.01156667	1168.84491	0.00139764	0.00092683	0.00085218	0.02176439
SAN DIEGO	2050	OBUS	Aggregated	45	GAS	6012.41522	0.00451509	0.00658841	0.15268804	0.43049705	0.01160738	1172.95887	0.00128097	0.00084806	0.00077976	0.02107355
SAN DIEGO	2050	OBUS	Aggregated	50	GAS	5851.31566	0.00434822	0.00634492	0.1417695	0.42779448	0.01194812	1207.39141	0.00123363	0.00081864	0.00075271	0.02094125
SAN DIEGO	2050	OBUS	Aggregated	55	GAS	7652.98792	0.00440416	0.00642654	0.1315989	0.43370516	0.01243888	1256.98435	0.0012495	0.00083367	0.00076653	0.02123059
SAN DIEGO	2050	OBUS	Aggregated	60	GAS	8831.19885	0.00471889	0.00688579	0.12281189	0.44359155	0.01294331	1307.95862	0.00133879	0.00089563	0.0008235	0.02171454
SAN DIEGO	2050	OBUS	Aggregated	65	GAS	1379.98661	0.00538537	0.00785831	0.11598813	0.45329739	0.0133387	1347.91334	0.00152788	0.00101507	0.00093332	0.02218966
SAN DIEGO	2050	PTO	Aggregated	20	DSL	37085.7293	0.02570501	0.0292632	0.41190946	4.67209315	0.01398422	1480.2029	0.00119393	0.00498408	0.00476847	0.23266728
SAN DIEGO	2050	SBUS	Aggregated	5	GAS	475.636456	0.04858828	0.07089991	0.31751461	0.3020372	0.01477159	1492.71111	0.01128735	0.00780034	0.00717213	0.02327751
SAN DIEGO	2050	SBUS	Aggregated	5	DSL	827.85399	0.05233902	0.05958399	0.79600933	7.16473419	0.01806276	1911.90824	0.00243101	0.00483264	0.00462358	0.30052535
SAN DIEGO	2050	SBUS	Aggregated	10	GAS	1667.0814	0.03061282	0.04467015	0.28953673	0.26167144	0.01199141	1211.76583	0.00711154	0.00490796	0.00451269	0.02016659
SAN DIEGO	2050	SBUS	Aggregated	10	DSL	2037.96034	0.03284561	0.03739223	0.4894043	5.38879141	0.01493409	1580.74435	0.00152559	0.00424986	0.00406601	0.248471
SAN DIEGO	2050	SBUS	Aggregated	15	GAS	3334.1628	0.02032006	0.02965098	0.26439554	0.23104176	0.00980662	990.987424	0.00472047	0.00325778	0.00299541	0.01780601
SAN DIEGO	2050	SBUS	Aggregated	15	DSL	2617.69515	0.0182619	0.02078978	0.26516955	3.76523319	0.0117519	1243.91578	0.00084822	0.00336696	0.00322131	0.19552624
SAN DIEGO	2050	SBUS	Aggregated	20	GAS	4525.58372	0.01423127	0.02076624	0.24212381	0.20722077	0.00815171	823.753337	0.00330601	0.00228129	0.00209756	0.01597017

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2050	SBUS	Aggregated	20	DSL	3455.03022	0.01240548	0.0141227	0.17709922	2.9736618	0.01003595	1062.2854	0.0005762	0.00286092	0.00273716	0.16697647
SAN DIEGO	2050	SBUS	Aggregated	25	GAS	7143.93804	0.01051079	0.01533732	0.22224689	0.18901127	0.00696772	704.108049	0.00244172	0.00168528	0.00154955	0.01456679
SAN DIEGO	2050	SBUS	Aggregated	25	DSL	4443.47151	0.00974192	0.01109044	0.13535661	2.31368727	0.00875822	927.04058	0.00045249	0.00273171	0.00261354	0.14571787
SAN DIEGO	2050	SBUS	Aggregated	30	GAS	8570.8474	0.00818973	0.01195043	0.20455756	0.17517209	0.00618269	624.778683	0.00190252	0.0013134	0.00120762	0.01350023
SAN DIEGO	2050	SBUS	Aggregated	30	DSL	5183.44043	0.00787899	0.00896963	0.1038386	1.72165581	0.00769443	814.440668	0.00036596	0.00297933	0.00285044	0.12801873
SAN DIEGO	2050	SBUS	Aggregated	35	GAS	8796.89661	0.00672457	0.00981247	0.18858689	0.16536256	0.0057312	579.154543	0.00156216	0.00107983	0.00099287	0.01274422
SAN DIEGO	2050	SBUS	Aggregated	35	DSL	4417.38261	0.00648859	0.00738676	0.07827076	1.2477308	0.00687727	727.945308	0.00030138	0.00360377	0.00344787	0.11442287
SAN DIEGO	2050	SBUS	Aggregated	40	GAS	5938.37027	0.00582744	0.00850339	0.17440428	0.15847141	0.00554786	560.626886	0.00135375	0.0009366	0.00086117	0.01221313
SAN DIEGO	2050	SBUS	Aggregated	40	DSL	3237.79618	0.00557065	0.00634176	0.0586529	0.89172336	0.00630672	667.554365	0.00025874	0.00460503	0.00440582	0.10493025
SAN DIEGO	2050	SBUS	Aggregated	45	GAS	2849.08711	0.00532986	0.00777732	0.16179249	0.15416872	0.00556725	562.587033	0.00123816	0.000857	0.00078798	0.01188153
SAN DIEGO	2050	SBUS	Aggregated	45	DSL	2723.28316	0.00512511	0.00583455	0.04498486	0.65365223	0.0059828	633.26776	0.00023805	0.00598312	0.00572429	0.09954087
SAN DIEGO	2050	SBUS	Aggregated	50	GAS	1426.90937	0.00515307	0.00751935	0.1507914	0.15172873	0.00573054	579.087857	0.00119709	0.00082727	0.00076065	0.01169348
SAN DIEGO	2050	SBUS	Aggregated	50	DSL	4648.38028	0.00515194	0.00586509	0.03726655	0.533903	0.0059055	625.085439	0.00023929	0.00773802	0.00740328	0.09825473
SAN DIEGO	2050	SBUS	Aggregated	55	GAS	2123.86341	0.00520882	0.0076007	0.13970176	0.1547379	0.00596577	602.857915	0.00121004	0.00084246	0.00077461	0.0119254
SAN DIEGO	2050	SBUS	Aggregated	55	DSL	11775.9283	0.00565111	0.00643336	0.03549787	0.53194086	0.00607481	643.007372	0.00026248	0.00986974	0.00944278	0.1010718
SAN DIEGO	2050	SBUS	Aggregated	60	GAS	1182.02973	0.00560554	0.0081796	0.1309247	0.15720514	0.00620758	627.29387	0.0013022	0.00090507	0.00083218	0.01211554
SAN DIEGO	2050	SBUS	Aggregated	60	DSL	11618.6316	0.00662268	0.00753942	0.03967898	0.64821561	0.00649076	687.033836	0.00030761	0.0123783	0.01184282	0.10799215
SAN DIEGO	2050	SBUS	Aggregated	65	DSL	4363.33296	0.0080666	0.00918321	0.04980975	0.88486802	0.00715332	757.164761	0.00037467	0.01526367	0.01460337	0.11901576
SAN DIEGO	2050	SBUS	Aggregated	70	DSL	380.845958	0.0099812	0.01136283	0.06588098	0.88607408	0.00715332	757.164761	0.0004636	0.01526367	0.01460337	0.11901576
SAN DIEGO	2050	SBUS	Aggregated	75	DSL	21.3383998	0.01236767	0.01407965	0.0878983	0.88695434	0.00715332	757.164761	0.00057445	0.01526367	0.01460337	0.11901576
SAN DIEGO	2050	SBUS	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	SBUS	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	SBUS	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 Ag	Aggregated	5	DSL	0.00311444	0.08202633	0.09338074	1.24810019	9.13406551	0.0260224	2754.42066	0.00380991	0.01099027	0.01051484	0.43295657
SAN DIEGO	2050	T6 Ag	Aggregated	10	DSL	0.00953501	0.05147228	0.05859727	0.76734871	7.3723419	0.02151499	2277.32019	0.00239075	0.00966489	0.00924679	0.35796302
SAN DIEGO	2050	T6 Ag	Aggregated	15	DSL	0.00912141	0.02861573	0.03257683	0.4157582	5.63093363	0.0169305	1792.06034	0.00132913	0.00765693	0.0073257	0.28168693
SAN DIEGO	2050	T6 Ag	Aggregated	20	DSL	0.00702122	0.01943844	0.02212918	0.27767132	4.71560601	0.01445838	1530.39137	0.00090287	0.00650606	0.00622461	0.24055621
SAN DIEGO	2050	T6 Ag	Aggregated	25	DSL	0.00716469	0.01526529	0.01737837	0.2122244	3.75524449	0.0126176	1335.54819	0.00070903	0.00621228	0.00594354	0.20992958
SAN DIEGO	2050	T6 Ag	Aggregated	30	DSL	0.00881157	0.01234657	0.01405563	0.16280811	2.88368854	0.01108503	1173.32841	0.00057347	0.00677558	0.00648247	0.18443089
SAN DIEGO	2050	T6 Ag	Aggregated	35	DSL	0.01166007	0.01016817	0.01157569	0.1227206	2.22954152	0.00990776	1048.71681	0.00047229	0.00819596	0.00784141	0.16484368
SAN DIEGO	2050	T6 Ag	Aggregated	40	DSL	0.01339559	0.00873009	0.00993854	0.09196188	1.79269374	0.00908579	961.71339	0.00040549	0.01047344	0.01002036	0.15116795
SAN DIEGO	2050	T6 Ag	Aggregated	45	DSL	0.01650495	0.00803231	0.00914418	0.07053196	1.57369876	0.00861913	912.318148	0.00037308	0.01360799	0.01301932	0.14340371
SAN DIEGO	2050	T6 Ag	Aggregated	50	DSL	0.02186833	0.00807486	0.00919261	0.05843083	1.57277277	0.00850777	900.531085	0.00037506	0.01759963	0.01683828	0.14155095
SAN DIEGO	2050	T6 Ag	Aggregated	55	DSL	0.05968117	0.00885772	0.01008384	0.05565848	1.78943586	0.00875172	926.352203	0.00041142	0.02244836	0.02147725	0.14560967
SAN DIEGO	2050	T6 Ag	Aggregated	60	DSL	0.27915178	0.01038089	0.01181786	0.06221493	2.22440224	0.00935096	989.781501	0.00048217	0.02815417	0.02693624	0.15557987
SAN DIEGO	2050	T6 Ag	Aggregated	65	DSL	0.20149994	0.01264439	0.01439467	0.07810017	2.87299616	0.01030552	1090.81898	0.0005873	0.03471707	0.03321522	0.17146155
SAN DIEGO	2050	T6 Ag	Aggregated	70	DSL	0.0009388	0.01264829	0.01439912	0.07813295	2.87193399	0.01030552	1090.81898	0.00058748	0.03471707	0.03321522	0.17146155
SAN DIEGO	2050	T6 Ag	Aggregated	75	DSL	7.9521E-06	0.01265316	0.01440466	0.07817785	2.88356252	0.01030552	1090.81898	0.00058771	0.03471707	0.03321522	0.17146155
SAN DIEGO	2050	T6 Ag	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 Ag	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 Ag	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	5	DSL	190.255348	0.04834752	0.05503997	0.73564928	6.19363643	0.01604683	1698.52623	0.00224562	0.00398935	0.00381677	0.26698467
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	10	DSL	432.050415	0.03033851	0.03453809	0.45228703	4.66061515	0.01326732	1404.32002	0.00140915	0.00350825	0.00335648	0.22073955
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	15	DSL	421.642805	0.01686653	0.01920126	0.24505422	3.25643719	0.01044027	1105.08229	0.00078341	0.00277938	0.00265915	0.17370355
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	20	DSL	545.196075	0.0114573	0.01304326	0.16366371	2.57213071	0.00891582	943.722395	0.00053216	0.00236163	0.00225947	0.14834002
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	25	DSL	468.690169	0.00899759	0.01024307	0.1250883	2.00162859	0.00778069	823.571096	0.00041791	0.00225499	0.00215744	0.12945391
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	30	DSL	297.455495	0.00727725	0.0082846	0.09596158	1.48941594	0.00683562	723.537062	0.00033801	0.00245946	0.00235306	0.11372995
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	35	DSL	427.68073	0.00599327	0.00682288	0.07233339	1.07865036	0.00610965	646.694192	0.00027837	0.00297504	0.00284634	0.10165132
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	40	DSL	418.268117	0.00514564	0.00585792	0.05420374	0.77052597	0.00560276	593.041565	0.000239	0.00380174	0.00363728	0.09321788
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	45	DSL	534.339374	0.00473436	0.00538971	0.04157261	0.56463558	0.00531499	562.581723	0.0002199	0.00493955	0.00472587	0.08843001
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	50	DSL	714.484294	0.00475944	0.00541826	0.03444002	0.46113406	0.00524631	555.311944	0.00022106	0.00638847	0.00611211	0.0872873
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	55	DSL	1679.79737	0.00522087	0.00594356	0.03280596	0.45977528	0.00539673	571.232922	0.0002425	0.00814851	0.007796	0.08978986
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	60	DSL	5838.3546	0.00611865	0.00696562	0.03667043	0.56020631	0.00576623	610.344394	0.0002842	0.01021965	0.00977755	0.09593764
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	65	DSL	11261.7332	0.00745279	0.00848443	0.04603343	0.76252601	0.00635485	672.648709	0.00034616	0.01260191	0.01205676	0.10573101
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	70	DSL	134.887772	0.00922313	0.01049983	0.06089374	0.76095486	0.00635485	672.648709	0.00042839	0.01260191	0.01205676	0.10573101
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	75	DSL	0.05048796	0.01142979	0.01301194	0.08125213	0.76098376	0.00635485	672.648709	0.00053088	0.01260191	0.01205676	0.10573101
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 CAIRP heavy	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0

Region	Calendar Year	Vehicle Categ	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2050	T6 CAIRP heav	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	5	DSL	27.7681159	0.04923934	0.05605524	0.74921902	6.41119925	0.01778233	1882.22507	0.00228704	0.00417885	0.00399807	0.29585957
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	10	DSL	63.0585481	0.03089814	0.03517518	0.46062989	4.8243272	0.01470221	1556.1999	0.00143514	0.00367489	0.00351592	0.24461295
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	15	DSL	61.5395384	0.01717765	0.01955545	0.24957448	3.37082454	0.0115694	1224.59904	0.00079786	0.00291141	0.00278546	0.19248992
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	20	DSL	79.5723641	0.01166864	0.01328386	0.16668264	2.66248043	0.00988009	1045.78833	0.00054198	0.00247381	0.00236679	0.16438336
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	25	DSL	68.4061871	0.00916356	0.01043201	0.12739567	2.07193852	0.0086222	912.642839	0.00042562	0.0023621	0.00225992	0.14345475
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	30	DSL	43.4141734	0.00741149	0.00843741	0.09773168	1.5417336	0.00757492	801.79044	0.00034424	0.00257629	0.00246484	0.12603029
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	35	DSL	62.4207845	0.00610382	0.00694874	0.07366765	1.11653919	0.00677044	716.637478	0.00028351	0.00311636	0.00298155	0.11264543
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	40	DSL	61.0469966	0.00524056	0.00596597	0.05520357	0.79759134	0.00620875	657.183951	0.00024341	0.00398233	0.00381006	0.10330017
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	45	DSL	77.9878087	0.00482169	0.00548913	0.04233946	0.58446858	0.00588986	623.429861	0.00022396	0.00517419	0.00495035	0.09799449
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	50	DSL	104.280289	0.00484723	0.00551821	0.0350753	0.4773312	0.00581376	615.375207	0.00022514	0.00669193	0.00640244	0.09672841
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	55	DSL	245.169498	0.00531717	0.0060532	0.0334111	0.47592443	0.00598046	633.01999	0.00024697	0.00853557	0.00816633	0.09950193
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	60	DSL	852.118529	0.00623152	0.00709411	0.03734685	0.57988296	0.00638995	676.36421	0.00028944	0.0107051	0.010242	0.10631503
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	65	DSL	1643.67055	0.00759026	0.00864093	0.04688256	0.7893091	0.00704224	745.407866	0.00035255	0.01320052	0.01262947	0.11716774
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	70	DSL	19.6871169	0.00939326	0.01069351	0.06201699	0.78768276	0.00704224	745.407866	0.00043629	0.01320052	0.01262947	0.11716774
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	75	DSL	0.00736881	0.01164062	0.01325196	0.08275091	0.78771268	0.00704224	745.407866	0.00054068	0.01320052	0.01262947	0.11716774
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 CAIRP sma	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 instate con	Aggregated	5	DSL	11154.6697	0.05781752	0.06582084	0.87747928	8.36192404	0.01849253	1957.3984	0.00268547	0.00597471	0.00571625	0.30767577
SAN DIEGO	2050	T6 instate con	Aggregated	10	DSL	8241.51246	0.0363038	0.04132912	0.53953914	6.29180036	0.01528965	1618.37931	0.00168622	0.00525483	0.00502751	0.25438669
SAN DIEGO	2050	T6 instate con	Aggregated	15	DSL	2158.07459	0.02018602	0.02298024	0.29235144	4.40373907	0.01203181	1273.54348	0.00093759	0.00416419	0.00398405	0.2001833
SAN DIEGO	2050	T6 instate con	Aggregated	20	DSL	1876.32992	0.01370588	0.0156031	0.19525133	3.48200139	0.01027495	1087.5836	0.0006366	0.0035388	0.00338572	0.170953
SAN DIEGO	2050	T6 instate con	Aggregated	25	DSL	2492.84765	0.01076219	0.01225193	0.1492329	2.71219053	0.00896685	949.123547	0.00049988	0.00337882	0.00323265	0.149189
SAN DIEGO	2050	T6 instate con	Aggregated	30	DSL	2868.91583	0.00870416	0.00990902	0.11448974	2.01985213	0.00787782	833.85157	0.00040429	0.00368422	0.00352484	0.13106985
SAN DIEGO	2050	T6 instate con	Aggregated	35	DSL	3617.56881	0.00716795	0.00816016	0.08630656	1.46705712	0.00704125	745.303128	0.00033293	0.00445492	0.0042622	0.11715127
SAN DIEGO	2050	T6 instate con	Aggregated	40	DSL	4315.06071	0.00615325	0.007005	0.06468259	1.0534625	0.00645716	683.477766	0.0002858	0.00569092	0.00544473	0.10743319
SAN DIEGO	2050	T6 instate con	Aggregated	45	DSL	5193.90761	0.00565982	0.00644328	0.04961728	0.77846611	0.00612553	648.375218	0.00026288	0.00739221	0.00707242	0.10191556
SAN DIEGO	2050	T6 instate con	Aggregated	50	DSL	5817.54586	0.00568752	0.0064748	0.04111102	0.64221283	0.00604636	639.995314	0.00026417	0.00955878	0.00914527	0.10059835
SAN DIEGO	2050	T6 instate con	Aggregated	55	DSL	7081.19287	0.0062362	0.00709943	0.03916105	0.64502433	0.00621965	658.337942	0.00028966	0.01219064	0.01166328	0.10348156
SAN DIEGO	2050	T6 instate con	Aggregated	60	DSL	22496.442	0.00730628	0.00831765	0.04376916	0.78716186	0.00664541	703.4038	0.00033936	0.01528714	0.01462583	0.11056528
SAN DIEGO	2050	T6 instate con	Aggregated	65	DSL	13204.9866	0.00889739	0.01012901	0.05493356	1.06695878	0.00732363	775.191718	0.00041326	0.01884813	0.01803277	0.12184934
SAN DIEGO	2050	T6 instate con	Aggregated	70	DSL	1904.87507	0.0109407	0.01245515	0.07208514	1.06659725	0.00732363	775.191718	0.00050817	0.01884813	0.01803277	0.12184934
SAN DIEGO	2050	T6 instate con	Aggregated	75	DSL	1153.80645	0.0134876	0.0153546	0.09558253	1.06782509	0.00732363	775.191718	0.00062646	0.01884813	0.01803277	0.12184934
SAN DIEGO	2050	T6 instate con	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 instate con	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 instate con	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 instate con	Aggregated	5	DSL	29174.7608	0.05168915	0.05884416	0.78645838	7.01916434	0.0178149	1885.67211	0.00240083	0.00469889	0.00449562	0.2964014
SAN DIEGO	2050	T6 instate con	Aggregated	10	DSL	21555.4705	0.03243583	0.03692572	0.48352616	5.27188213	0.01472913	1559.05025	0.00150656	0.00413223	0.00395347	0.24506099
SAN DIEGO	2050	T6 instate con	Aggregated	15	DSL	5644.39032	0.01803268	0.02052884	0.26198051	3.68087672	0.0115906	1226.84228	0.00083757	0.00327374	0.00313212	0.19284252
SAN DIEGO	2050	T6 instate con	Aggregated	20	DSL	4907.49414	0.01224943	0.01394504	0.1749683	2.90547327	0.00989819	1047.70405	0.00056895	0.00278169	0.00266136	0.16468449
SAN DIEGO	2050	T6 instate con	Aggregated	25	DSL	6519.98093	0.00961962	0.01095121	0.13372839	2.26141957	0.00863799	914.314764	0.00044681	0.00265608	0.00254118	0.14371755
SAN DIEGO	2050	T6 instate con	Aggregated	30	DSL	7503.57788	0.00778033	0.00885731	0.10258986	1.68234477	0.0075888	803.259455	0.00036138	0.0028969	0.00277159	0.1262612
SAN DIEGO	2050	T6 instate con	Aggregated	35	DSL	9461.66108	0.00640756	0.00729452	0.07732968	1.21917663	0.00678284	717.950618	0.00029761	0.00350417	0.00335258	0.11285184
SAN DIEGO	2050	T6 instate con	Aggregated	40	DSL	11285.9338	0.0055013	0.00626282	0.05794782	0.871629	0.00622013	658.388243	0.00025552	0.00447786	0.00428415	0.10348946
SAN DIEGO	2050	T6 instate con	Aggregated	45	DSL	13584.536	0.00506156	0.0057622	0.04444427	0.63920304	0.00590065	624.572323	0.0002351	0.005818	0.00556631	0.09817407
SAN DIEGO	2050	T6 instate con	Aggregated	50	DSL	15215.6462	0.00508832	0.00579267	0.03681902	0.52202226	0.00582441	616.502853	0.00023634	0.00752457	0.00719906	0.09690566
SAN DIEGO	2050	T6 instate con	Aggregated	55	DSL	18520.6835	0.00558159	0.00635421	0.03507205	0.52034823	0.00599142	634.179831	0.00025925	0.00959757	0.00918239	0.09968424
SAN DIEGO	2050	T6 instate con	Aggregated	60	DSL	58838.8837	0.00654136	0.00744684	0.03920339	0.6343875	0.00640166	677.60328	0.00030383	0.01203701	0.01151629	0.1065098
SAN DIEGO	2050	T6 instate con	Aggregated	65	DSL	34537.3134	0.00796764	0.00907055	0.04921299	0.86280586	0.00705514	746.773183	0.00037008	0.01484288	0.01420078	0.11738234
SAN DIEGO	2050	T6 instate con	Aggregated	70	DSL	4982.15328	0.00985823	0.01122284	0.06508268	0.8625135	0.00705514	746.773183	0.00045789	0.01484288	0.01420078	0.11738234
SAN DIEGO	2050	T6 instate con	Aggregated	75	DSL	3017.75201	0.01221477	0.01390559	0.0868239	0.86350641	0.00705514	746.773183	0.00056734	0.01484288	0.01420078	0.11738234
SAN DIEGO	2050	T6 instate con	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 instate con	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 instate con	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 instate heav	Aggregated	5	DSL	9947.39093	0.05381254	0.06126148	0.8188043	7.46818733	0.016482	1744.58752	0.00249945	0.00514922	0.00492647	0.27422486
SAN DIEGO	2050	T6 instate heav	Aggregated	10	DSL	22566.0452	0.03376786	0.03844214	0.50341185	5.62398433	0.01362711	1442.40292	0.00156843	0.00452825	0.00433236	0.22672565
SAN DIEGO	2050	T6 instate heav	Aggregated	15	DSL	28823.6303	0.01877306	0.0213717	0.27275422	3.93331308	0.01072339	1135.05034	0.00087196	0.00358747	0.00343228	0.17841411

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2050	T6 instate heavy	Aggregated	20	DSL	38020.2322	0.01275239	0.01451762	0.18216363	3.10827724	0.00915696	969.24677	0.00059232	0.00304826	0.00291639	0.15235209
SAN DIEGO	2050	T6 instate heavy	Aggregated	25	DSL	53126.9825	0.01001464	0.0114009	0.13922781	2.41899084	0.0079906	845.789783	0.00046515	0.00291061	0.0027847	0.13294638
SAN DIEGO	2050	T6 instate heavy	Aggregated	30	DSL	67732.1942	0.00809984	0.00922106	0.10680871	1.80072208	0.00701933	742.982461	0.00037622	0.00317453	0.0030372	0.1167865
SAN DIEGO	2050	T6 instate heavy	Aggregated	35	DSL	56688.6745	0.00667073	0.00759411	0.08050969	1.30642674	0.00627298	663.982659	0.00030984	0.00384002	0.0036739	0.10436883
SAN DIEGO	2050	T6 instate heavy	Aggregated	40	DSL	34354.9466	0.00572728	0.00652008	0.06033072	0.93595569	0.00575039	608.667509	0.00026602	0.00490707	0.00469479	0.09567406
SAN DIEGO	2050	T6 instate heavy	Aggregated	45	DSL	25388.0106	0.00526952	0.00599895	0.04627182	0.68907063	0.00545477	577.37666	0.00024476	0.00637569	0.00609988	0.09075557
SAN DIEGO	2050	T6 instate heavy	Aggregated	50	DSL	52433.8192	0.00529743	0.00603072	0.03833299	0.56578167	0.00538268	569.746266	0.00024605	0.00824588	0.00788917	0.08955618
SAN DIEGO	2050	T6 instate heavy	Aggregated	55	DSL	131027.81	0.00581102	0.0066154	0.03651422	0.5659639	0.005535	585.869046	0.00026991	0.01051763	0.01006264	0.09209046
SAN DIEGO	2050	T6 instate heavy	Aggregated	60	DSL	88984.8016	0.00681028	0.00775299	0.04081552	0.68944971	0.0059114	625.709818	0.00031632	0.01319095	0.01262031	0.09835287
SAN DIEGO	2050	T6 instate heavy	Aggregated	65	DSL	34631.1778	0.00829522	0.00944348	0.05123688	0.93639373	0.00651483	689.582644	0.00038529	0.01626583	0.01556218	0.10839279
SAN DIEGO	2050	T6 instate heavy	Aggregated	70	DSL	2955.13648	0.01023951	0.01165691	0.06755734	0.93703683	0.00651483	689.582644	0.0004756	0.01626583	0.01556218	0.10839279
SAN DIEGO	2050	T6 instate heavy	Aggregated	75	DSL	88.0864853	0.012663	0.01441586	0.08991611	0.94037544	0.00651483	689.582644	0.00058816	0.01626583	0.01556218	0.10839279
SAN DIEGO	2050	T6 instate heavy	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 instate heavy	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 instate heavy	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 instate small	Aggregated	5	DSL	13025.9318	0.05163121	0.05877821	0.7856135	6.98097392	0.01780141	1884.24448	0.00239814	0.00468702	0.00448426	0.29617699
SAN DIEGO	2050	T6 instate small	Aggregated	10	DSL	29549.8355	0.03239906	0.03688386	0.4830057	5.25317389	0.01471798	1557.86952	0.00150485	0.00412179	0.00394348	0.24487539
SAN DIEGO	2050	T6 instate small	Aggregated	15	DSL	37744.032	0.01801208	0.02050538	0.26169794	3.67024931	0.01158182	1225.9129	0.00083661	0.00326545	0.00312419	0.19269644
SAN DIEGO	2050	T6 instate small	Aggregated	20	DSL	49786.819	0.01223546	0.01392914	0.1747795	2.89830873	0.00989069	1046.91035	0.00056831	0.00277464	0.00265461	0.16455973
SAN DIEGO	2050	T6 instate small	Aggregated	25	DSL	69568.8402	0.00960869	0.01093876	0.13358411	2.25491754	0.00863145	913.622002	0.0004463	0.00264935	0.00253474	0.14360866
SAN DIEGO	2050	T6 instate small	Aggregated	30	DSL	88694.1055	0.00777151	0.00884727	0.10247915	1.677897	0.00758305	802.650671	0.00036097	0.00288958	0.00276458	0.12616551
SAN DIEGO	2050	T6 instate small	Aggregated	35	DSL	74232.8126	0.00640032	0.00728628	0.07724617	1.21623848	0.0067777	717.406349	0.00029728	0.00349533	0.00334413	0.11276629
SAN DIEGO	2050	T6 instate small	Aggregated	40	DSL	44987.1925	0.00549512	0.00625578	0.05788517	0.86980193	0.00621541	657.889035	0.00025523	0.00446661	0.00427338	0.10341099
SAN DIEGO	2050	T6 instate small	Aggregated	45	DSL	33245.149	0.00505591	0.00575577	0.04439616	0.63836402	0.00589618	624.098731	0.00023483	0.0058034	0.00555235	0.09809963
SAN DIEGO	2050	T6 instate small	Aggregated	50	DSL	68661.1552	0.00508269	0.00578626	0.03677913	0.5219332	0.00582	616.035435	0.00023608	0.00750572	0.00718102	0.09683219
SAN DIEGO	2050	T6 instate small	Aggregated	55	DSL	171578.59	0.00557546	0.00634724	0.03503409	0.52039705	0.00598688	633.699149	0.00025897	0.00957355	0.00915941	0.09960868
SAN DIEGO	2050	T6 instate small	Aggregated	60	DSL	116524.018	0.00653422	0.00743871	0.03916103	0.6336061	0.00639681	677.089873	0.0003035	0.01200691	0.0114875	0.1064291
SAN DIEGO	2050	T6 instate small	Aggregated	65	DSL	45348.9124	0.00795897	0.00906068	0.04915995	0.86170153	0.0070498	746.207605	0.00036967	0.01480579	0.0141653	0.11729344
SAN DIEGO	2050	T6 instate small	Aggregated	70	DSL	3869.69875	0.00984825	0.01121148	0.06501864	0.86229333	0.0070498	746.207605	0.00045743	0.01480579	0.0141653	0.11729344
SAN DIEGO	2050	T6 instate small	Aggregated	75	DSL	115.347688	0.01220316	0.01389237	0.08674479	0.86536564	0.0070498	746.207605	0.00056681	0.01480579	0.0141653	0.11729344
SAN DIEGO	2050	T6 instate small	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 instate small	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 instate small	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 OOS heavy	Aggregated	5	DSL	110.016871	0.04828799	0.0549722	0.73474341	6.17915194	0.01604593	1698.43067	0.00224285	0.0039767	0.00380467	0.26696965
SAN DIEGO	2050	T6 OOS heavy	Aggregated	10	DSL	249.83705	0.03030116	0.03449556	0.45173009	4.64971212	0.01326657	1404.24101	0.00140741	0.00349712	0.00334584	0.22072713
SAN DIEGO	2050	T6 OOS heavy	Aggregated	15	DSL	243.818755	0.01684576	0.01917762	0.24475246	3.24881558	0.01043968	1105.02012	0.00078244	0.00277057	0.00265071	0.17369377
SAN DIEGO	2050	T6 OOS heavy	Aggregated	20	DSL	315.264549	0.01144319	0.0130272	0.16346217	2.56610873	0.00891532	943.669368	0.00053151	0.00235414	0.0022523	0.14833168
SAN DIEGO	2050	T6 OOS heavy	Aggregated	25	DSL	271.024318	0.00898651	0.01023045	0.12493427	1.99694167	0.00778025	823.524875	0.0004174	0.00224784	0.0021506	0.12944664
SAN DIEGO	2050	T6 OOS heavy	Aggregated	30	DSL	172.006323	0.00726829	0.0082744	0.09584341	1.48592775	0.00683524	723.496529	0.00033759	0.00245166	0.0023456	0.11372358
SAN DIEGO	2050	T6 OOS heavy	Aggregated	35	DSL	247.31024	0.00598589	0.00681448	0.07224432	1.07612316	0.0061093	646.658054	0.00027803	0.00296561	0.00283732	0.10164564
SAN DIEGO	2050	T6 OOS heavy	Aggregated	40	DSL	241.867312	0.0051393	0.00585071	0.05413699	0.76871922	0.00560245	593.008649	0.00023871	0.00378969	0.00362575	0.0932127
SAN DIEGO	2050	T6 OOS heavy	Aggregated	45	DSL	308.986563	0.00472853	0.00538308	0.04152142	0.56330972	0.0053147	562.550526	0.00021963	0.00492389	0.00471088	0.08842511
SAN DIEGO	2050	T6 OOS heavy	Aggregated	50	DSL	413.156988	0.00475358	0.00541159	0.03439761	0.46004914	0.00524602	555.281317	0.00022079	0.00636822	0.00609273	0.08728249
SAN DIEGO	2050	T6 OOS heavy	Aggregated	55	DSL	971.357982	0.00521444	0.00593624	0.03276556	0.45869193	0.00539643	571.201626	0.0002422	0.00812267	0.00777129	0.08978494
SAN DIEGO	2050	T6 OOS heavy	Aggregated	60	DSL	3376.08121	0.00611112	0.00695704	0.03662527	0.558886	0.00576592	610.311224	0.00028385	0.01018725	0.00974655	0.09593243
SAN DIEGO	2050	T6 OOS heavy	Aggregated	65	DSL	6512.19882	0.00744361	0.00847398	0.04597675	0.76072998	0.00635451	672.612152	0.00034574	0.01256195	0.01201853	0.10572526
SAN DIEGO	2050	T6 OOS heavy	Aggregated	70	DSL	78.0000707	0.00921179	0.01048692	0.06081894	0.75916253	0.00635451	672.612152	0.00042786	0.01256195	0.01201853	0.10572526
SAN DIEGO	2050	T6 OOS heavy	Aggregated	75	DSL	0.02919512	0.01141576	0.01299597	0.08115251	0.75919136	0.00635451	672.612152	0.00053023	0.01256195	0.01201853	0.10572526
SAN DIEGO	2050	T6 OOS heavy	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 OOS heavy	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 OOS heavy	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 OOS small	Aggregated	5	DSL	16.084206	0.04944308	0.05628719	0.75231919	6.45892678	0.0178044	1884.56157	0.0022965	0.00422208	0.00403944	0.29622684
SAN DIEGO	2050	T6 OOS small	Aggregated	10	DSL	36.525585	0.03102599	0.03532073	0.46253591	4.86042942	0.01472046	1558.13169	0.00144108	0.00371291	0.0035523	0.2449166
SAN DIEGO	2050	T6 OOS small	Aggregated	15	DSL	35.6457246	0.01724873	0.01963636	0.25060718	3.39622894	0.01158377	1226.1192	0.00080116	0.00294153	0.00281428	0.19272886
SAN DIEGO	2050	T6 OOS small	Aggregated	20	DSL	46.0909304	0.01171692	0.01333883	0.16737235	2.68264678	0.00989235	1047.08653	0.00054422	0.0024994	0.00239128	0.16458742
SAN DIEGO	2050	T6 OOS small	Aggregated	25	DSL	39.6231134	0.00920147	0.01047518	0.12792282	2.08766412	0.0086329	913.775751	0.00042738	0.00238654	0.0022833	0.14363282
SAN DIEGO	2050	T6 OOS small	Aggregated	30	DSL	25.1469171	0.00744215	0.00847233	0.09813608	1.55346821	0.00758432	802.785746	0.00034567	0.00260294	0.00249034	0.12618674
SAN DIEGO	2050	T6 OOS small	Aggregated	35	DSL	36.1561714	0.00612908	0.00697749	0.07397248	1.12508953	0.00677884	717.527078	0.00028468	0.00314861	0.0030124	0.11278526

Region	Calendar Year	Vehicle Categ	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2050	T6 OOS small	Aggregated	40	DSL	35.3604282	0.00526224	0.00599066	0.055432	0.80377351	0.00621646	657.999748	0.00024442	0.00402353	0.00384947	0.1034284
SAN DIEGO	2050	T6 OOS small	Aggregated	45	DSL	45.1731038	0.00484165	0.00551184	0.04251465	0.58909547	0.00589717	624.203758	0.00022488	0.00522772	0.00500157	0.09811614
SAN DIEGO	2050	T6 OOS small	Aggregated	50	DSL	60.4025732	0.00486729	0.00554104	0.03522043	0.48121704	0.00582098	616.139105	0.00022607	0.00676117	0.00646868	0.09684849
SAN DIEGO	2050	T6 OOS small	Aggregated	55	DSL	142.010237	0.00533918	0.00607824	0.03354935	0.47988164	0.00598788	633.805791	0.00024799	0.00862388	0.00825082	0.09962544
SAN DIEGO	2050	T6 OOS small	Aggregated	60	DSL	493.575078	0.0062573	0.00712346	0.03750139	0.58472089	0.00639789	677.203817	0.00029064	0.01081586	0.01034797	0.10644701
SAN DIEGO	2050	T6 OOS small	Aggregated	65	DSL	952.068044	0.00762167	0.00867669	0.04707655	0.79583791	0.00705099	746.333181	0.00035401	0.01333709	0.01276014	0.11731318
SAN DIEGO	2050	T6 OOS small	Aggregated	70	DSL	11.4034256	0.00943102	0.0107365	0.06226431	0.79419812	0.00705099	746.333181	0.00043805	0.01333709	0.01276014	0.11731318
SAN DIEGO	2050	T6 OOS small	Aggregated	75	DSL	0.00426826	0.0116863	0.01330396	0.0830713	0.79422829	0.00705099	746.333181	0.0005428	0.01333709	0.01276014	0.11731318
SAN DIEGO	2050	T6 OOS small	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 OOS small	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 OOS small	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 Public	Aggregated	5	DSL	1603.39594	0.04742764	0.05399276	0.67314602	5.11505185	0.01801209	1906.54514	0.00220289	0.00324067	0.00310048	0.29968235
SAN DIEGO	2050	T6 Public	Aggregated	10	DSL	3050.80187	0.03035017	0.03455136	0.41537912	3.8518195	0.01489864	1576.99233	0.00140969	0.00285631	0.00273275	0.24788123
SAN DIEGO	2050	T6 Public	Aggregated	15	DSL	2440.1617	0.01719595	0.01957628	0.22601177	2.69761532	0.01172877	1241.46777	0.00079871	0.00227758	0.00217906	0.19514145
SAN DIEGO	2050	T6 Public	Aggregated	20	DSL	1820.47679	0.01171061	0.01333164	0.15114164	2.13122865	0.01001745	1060.32742	0.00054393	0.00194277	0.00185873	0.1666687
SAN DIEGO	2050	T6 Public	Aggregated	25	DSL	2579.4603	0.00913461	0.01039906	0.11544795	1.66195012	0.0087442	925.556984	0.00042428	0.00184948	0.00176947	0.14548467
SAN DIEGO	2050	T6 Public	Aggregated	30	DSL	3581.39424	0.00733108	0.00834587	0.08853938	1.24198526	0.00768501	813.443595	0.00034051	0.00199636	0.00191	0.12786201
SAN DIEGO	2050	T6 Public	Aggregated	35	DSL	4570.02726	0.00598588	0.00681447	0.0667543	0.90547476	0.00687131	727.315146	0.00027803	0.00238237	0.00227931	0.11432381
SAN DIEGO	2050	T6 Public	Aggregated	40	DSL	5255.17282	0.0050833	0.00578695	0.05005385	0.65239141	0.00630285	667.144532	0.00023611	0.00300711	0.00287702	0.10486583
SAN DIEGO	2050	T6 Public	Aggregated	45	DSL	4866.52214	0.00461177	0.00525015	0.03840938	0.48348113	0.00597948	632.915863	0.0002142	0.00387032	0.00370289	0.09948556
SAN DIEGO	2050	T6 Public	Aggregated	50	DSL	3501.46684	0.00456276	0.00519436	0.03179977	0.39854678	0.00590109	624.619102	0.00021193	0.00497185	0.00475677	0.09818142
SAN DIEGO	2050	T6 Public	Aggregated	55	DSL	4122.61371	0.00492998	0.00561241	0.03020948	0.39743027	0.00606764	642.247544	0.00022898	0.00631156	0.00603853	0.10095237
SAN DIEGO	2050	T6 Public	Aggregated	60	DSL	4735.35846	0.00572656	0.00651925	0.03366166	0.48007429	0.00647962	685.854784	0.00026598	0.00788759	0.00754637	0.10780682
SAN DIEGO	2050	T6 Public	Aggregated	65	DSL	2014.60242	0.0069413	0.00790214	0.04212841	0.64653127	0.00713684	755.420187	0.00032241	0.00969873	0.00927917	0.11874153
SAN DIEGO	2050	T6 Public	Aggregated	70	DSL	853.498358	0.00853086	0.00971173	0.05547123	0.64749917	0.00713684	755.420187	0.00039624	0.00969873	0.00927917	0.11874153
SAN DIEGO	2050	T6 Public	Aggregated	75	DSL	207.752937	0.01051218	0.01196732	0.07375069	0.64855182	0.00713684	755.420187	0.00048826	0.00969873	0.00927917	0.11874153
SAN DIEGO	2050	T6 Public	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 Public	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 Public	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 utility	Aggregated	5	DSL	91.7861734	0.04156471	0.04731826	0.6324429	4.53731496	0.0177379	1877.5226	0.00193057	0.00254809	0.00243786	0.29512041
SAN DIEGO	2050	T6 utility	Aggregated	10	DSL	329.753957	0.02608224	0.02969264	0.38883436	3.41736291	0.01466547	1552.31196	0.00121145	0.0022408	0.00214386	0.24400182
SAN DIEGO	2050	T6 utility	Aggregated	15	DSL	350.880044	0.01450028	0.01650746	0.21067485	2.38485239	0.0115405	1221.53956	0.0006735	0.00177525	0.00169846	0.19200901
SAN DIEGO	2050	T6 utility	Aggregated	20	DSL	295.719628	0.00984992	0.01121339	0.14070285	1.88158886	0.00985541	1043.17559	0.0004575	0.00150843	0.00144317	0.16397267
SAN DIEGO	2050	T6 utility	Aggregated	25	DSL	351.977022	0.00773529	0.00880604	0.1075393	1.46448699	0.00860066	910.362735	0.00035928	0.00144031	0.00137801	0.14309634
SAN DIEGO	2050	T6 utility	Aggregated	30	DSL	456.099807	0.00625631	0.00712233	0.08249885	1.08984527	0.00755599	799.787285	0.00029059	0.00157091	0.00150296	0.12571542
SAN DIEGO	2050	T6 utility	Aggregated	35	DSL	556.398356	0.00515246	0.00586568	0.06218553	0.78996611	0.00675352	714.847064	0.00023932	0.00190023	0.00181803	0.112364
SAN DIEGO	2050	T6 utility	Aggregated	40	DSL	732.561356	0.00442374	0.0050361	0.04659934	0.56480161	0.00619324	655.542073	0.00020547	0.00242826	0.00232321	0.10304208
SAN DIEGO	2050	T6 utility	Aggregated	45	DSL	753.548844	0.00407017	0.00463357	0.03574027	0.41421351	0.00587514	621.872313	0.00018905	0.003155	0.00301852	0.097774967
SAN DIEGO	2050	T6 utility	Aggregated	50	DSL	697.699325	0.00409172	0.00465812	0.02960833	0.33817311	0.00579923	613.837782	0.00019005	0.00408046	0.00390394	0.09648675
SAN DIEGO	2050	T6 utility	Aggregated	55	DSL	1085.23941	0.00448842	0.00510972	0.02820351	0.33700851	0.00596552	631.438482	0.00020848	0.00520464	0.00497949	0.09925334
SAN DIEGO	2050	T6 utility	Aggregated	60	DSL	732.722175	0.00526025	0.00598839	0.03152583	0.41050419	0.00637399	674.674413	0.00024432	0.00652753	0.00624515	0.10604942
SAN DIEGO	2050	T6 utility	Aggregated	65	DSL	5.54953129	0.00640721	0.00729412	0.03957527	0.56015653	0.00702465	743.545574	0.0002976	0.00804913	0.00770093	0.11687501
SAN DIEGO	2050	T6 utility	Aggregated	70	DSL	0.00098061	0.00792931	0.00902692	0.05235183	0.55866289	0.00702465	743.545574	0.0003683	0.00804913	0.00770093	0.11687501
SAN DIEGO	2050	T6 utility	Aggregated	75	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 utility	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 utility	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6 utility	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T6TS	Aggregated	5	GAS	2507.51794	0.04244377	0.06193385	0.30520007	0.15056117	0.03062765	3095.01154	0.01168027	0.00779696	0.00716901	0.01461266
SAN DIEGO	2050	T6TS	Aggregated	10	GAS	12605.3148	0.02670543	0.03896851	0.27794592	0.13084067	0.02486307	2512.48395	0.00734917	0.00490583	0.00451073	0.0126987
SAN DIEGO	2050	T6TS	Aggregated	15	GAS	15922.6739	0.01776995	0.02592987	0.25441211	0.11493632	0.02033289	2054.69724	0.00489018	0.00325637	0.00299411	0.01115511
SAN DIEGO	2050	T6TS	Aggregated	20	GAS	16515.7232	0.01243821	0.01814981	0.2328538	0.10318932	0.01690136	1707.93095	0.00342292	0.0022803	0.00209665	0.01001501
SAN DIEGO	2050	T6TS	Aggregated	25	GAS	18402.3342	0.00918332	0.01340028	0.21366632	0.09413955	0.01444636	1459.84558	0.00252719	0.00168455	0.00154888	0.00913668
SAN DIEGO	2050	T6TS	Aggregated	30	GAS	20806.4602	0.00716106	0.0104494	0.19681017	0.0871859	0.01281867	1295.36312	0.00197068	0.00131283	0.0012071	0.0084618
SAN DIEGO	2050	T6TS	Aggregated	35	GAS	25859.2733	0.00587526	0.00857317	0.18130504	0.0823797	0.01188265	1200.77596	0.00161684	0.00107937	0.00099244	0.00799533
SAN DIEGO	2050	T6TS	Aggregated	40	GAS	32192.1297	0.00508407	0.00741867	0.16743604	0.07914851	0.01150269	1162.37959	0.00139911	0.00093619	0.00086079	0.00768173
SAN DIEGO	2050	T6TS	Aggregated	45	GAS	29357.0224	0.00465969	0.00679941	0.15564064	0.07663618	0.01154317	1166.47024	0.00128232	0.00085663	0.00078764	0.0074379
SAN DIEGO	2050	T6TS	Aggregated	50	GAS	28570.4161	0.00448748	0.00654812	0.14451097	0.07615508	0.01188202	1200.71165	0.00123493	0.00082691	0.00076032	0.00739121
SAN DIEGO	2050	T6TS	Aggregated	55	GAS	37367.502	0.00454521	0.00663236	0.13414369	0.07720728	0.01237006	1250.02958	0.00125081	0.00084209	0.00077427	0.00749333

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2050	T6TS	Aggregated	60	GAS	43120.3922	0.00487001	0.00710631	0.12518676	0.07896724	0.01287169	1300.72128	0.0013402	0.00090468	0.00083182	0.00766414
SAN DIEGO	2050	T6TS	Aggregated	65	GAS	6738.10712	0.00555784	0.00810998	0.11823105	0.08069505	0.01326488	1340.45458	0.00152948	0.00102533	0.00094275	0.00783183
SAN DIEGO	2050	T7 Ag	Aggregated	5	DSL	0.00489463	0.17307538	0.19703315	2.95424104	15.5973281	0.04022009	4257.21895	0.0080389	0.01972473	0.01887145	0.66917553
SAN DIEGO	2050	T7 Ag	Aggregated	10	DSL	0.01640355	0.10860639	0.12364011	1.81630694	12.5932816	0.03325347	3519.81482	0.00504449	0.01734601	0.01659562	0.55326587
SAN DIEGO	2050	T7 Ag	Aggregated	15	DSL	0.01612478	0.06037913	0.06873704	0.98409562	9.6205675	0.02616769	2769.79961	0.00280445	0.01374224	0.01314776	0.43537393
SAN DIEGO	2050	T7 Ag	Aggregated	20	DSL	0.01229225	0.04101506	0.04669252	0.65724531	8.05744593	0.0223468	2365.36533	0.00190504	0.01167672	0.01117159	0.37180249
SAN DIEGO	2050	T7 Ag	Aggregated	25	DSL	0.01234588	0.03220973	0.03666833	0.5023331	6.4160653	0.0195017	2064.21668	0.00149606	0.01114945	0.01066713	0.32446612
SAN DIEGO	2050	T7 Ag	Aggregated	30	DSL	0.01581511	0.02605124	0.02965736	0.38536521	4.92776479	0.01713296	1813.49059	0.00121001	0.01216043	0.01163438	0.28505547
SAN DIEGO	2050	T7 Ag	Aggregated	35	DSL	0.02181998	0.02145482	0.02442468	0.29047847	3.81039578	0.01531338	1620.89152	0.00099652	0.01470966	0.01407333	0.25478157
SAN DIEGO	2050	T7 Ag	Aggregated	40	DSL	0.02523232	0.01842046	0.02097029	0.21767289	3.06371373	0.01404295	1486.41946	0.00085558	0.01879714	0.01798399	0.23364444
SAN DIEGO	2050	T7 Ag	Aggregated	45	DSL	0.03161281	0.01694817	0.0192942	0.16694846	2.68990629	0.01332168	1410.07442	0.0007872	0.02442287	0.02336635	0.22164406
SAN DIEGO	2050	T7 Ag	Aggregated	50	DSL	0.04131914	0.01703793	0.01939639	0.1383052	2.68857516	0.01314957	1391.85639	0.00079137	0.03158685	0.03022042	0.21878044
SAN DIEGO	2050	T7 Ag	Aggregated	55	DSL	0.11831921	0.01868977	0.02127688	0.13174309	3.05886366	0.01352661	1431.76538	0.00086809	0.04028908	0.03854619	0.22505358
SAN DIEGO	2050	T7 Ag	Aggregated	60	DSL	0.60323581	0.02190366	0.02493565	0.14726214	3.80301289	0.01445281	1529.80139	0.00101737	0.05052955	0.04834367	0.24046348
SAN DIEGO	2050	T7 Ag	Aggregated	65	DSL	0.38361235	0.02667963	0.03037272	0.18486235	4.91181246	0.01592816	1685.96442	0.0012392	0.06230828	0.05961285	0.26501013
SAN DIEGO	2050	T7 Ag	Aggregated	70	DSL	0.00243266	0.02668787	0.0303821	0.18493993	4.9194608	0.01592816	1685.96442	0.00123958	0.06230828	0.05961285	0.26501013
SAN DIEGO	2050	T7 Ag	Aggregated	75	DSL	4.2792E-05	0.02669814	0.03039379	0.18504622	4.93345818	0.01592816	1685.96442	0.00124006	0.06230828	0.05961285	0.26501013
SAN DIEGO	2050	T7 Ag	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 Ag	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 Ag	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 CAIRP	Aggregated	5	DSL	3821.10395	0.12364397	0.14075925	2.11048999	13.7117189	0.0221623	2345.83674	0.00574294	0.01117578	0.01069232	0.36873287
SAN DIEGO	2050	T7 CAIRP	Aggregated	10	DSL	8688.35578	0.07758772	0.08832772	1.2975575	10.3172369	0.01832351	1939.50817	0.00360375	0.00982803	0.00940287	0.30486367
SAN DIEGO	2050	T7 CAIRP	Aggregated	15	DSL	8125.0696	0.04313447	0.04910531	0.70303131	7.21128841	0.01441907	1526.23056	0.00200348	0.00778618	0.00744935	0.23990219
SAN DIEGO	2050	T7 CAIRP	Aggregated	20	DSL	11870.8075	0.0293009	0.03335685	0.46953164	5.69543733	0.01231359	1303.36938	0.00136095	0.00661588	0.00632968	0.20487152
SAN DIEGO	2050	T7 CAIRP	Aggregated	25	DSL	10440.9222	0.02301043	0.02619562	0.3588634	4.43276534	0.01074581	1137.42351	0.00106877	0.00631714	0.00604386	0.17878714
SAN DIEGO	2050	T7 CAIRP	Aggregated	30	DSL	5770.81187	0.01861085	0.02118703	0.27530232	3.30002611	0.00944052	999.260295	0.00086443	0.00688995	0.00659189	0.1570698
SAN DIEGO	2050	T7 CAIRP	Aggregated	35	DSL	7715.04476	0.01532719	0.01744884	0.20751587	2.39088506	0.0084378	893.125163	0.00071191	0.00833431	0.00797377	0.14038684
SAN DIEGO	2050	T7 CAIRP	Aggregated	40	DSL	7141.39483	0.01315946	0.01498105	0.15550405	1.70786248	0.00773755	819.00459	0.00061122	0.01065022	0.0101895	0.12873612
SAN DIEGO	2050	T7 CAIRP	Aggregated	45	DSL	9513.31993	0.01210766	0.01378365	0.11926686	1.25225741	0.00734011	776.935963	0.00056237	0.01383769	0.01323908	0.12212351
SAN DIEGO	2050	T7 CAIRP	Aggregated	50	DSL	14002.5285	0.01217179	0.01385666	0.09880431	1.02358302	0.00724509	766.879231	0.00056535	0.01789671	0.0171225	0.12054274
SAN DIEGO	2050	T7 CAIRP	Aggregated	55	DSL	33615.9977	0.01335185	0.01520007	0.09411638	1.020759	0.00745261	788.844601	0.00062016	0.02282728	0.02183978	0.12399539
SAN DIEGO	2050	T7 CAIRP	Aggregated	60	DSL	122666.289	0.01564784	0.01781388	0.10520309	1.24368624	0.00796262	842.828201	0.0007268	0.0286294	0.02739091	0.13248086
SAN DIEGO	2050	T7 CAIRP	Aggregated	65	DSL	224742.115	0.01905976	0.02169808	0.13206442	1.69238584	0.00877545	928.864599	0.00088528	0.03530308	0.03377588	0.14600458
SAN DIEGO	2050	T7 CAIRP	Aggregated	70	DSL	2761.96304	0.02358468	0.02684936	0.17467285	1.68888116	0.00877545	928.864599	0.00109545	0.03530308	0.03377588	0.14600458
SAN DIEGO	2050	T7 CAIRP	Aggregated	75	DSL	0.87511173	0.02922481	0.03327022	0.23304573	1.68946325	0.00877545	928.864599	0.00135742	0.03530308	0.03377588	0.14600458
SAN DIEGO	2050	T7 CAIRP	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 CAIRP	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 CAIRP	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	5	DSL	8160.16409	0.12455339	0.14179455	2.12601292	13.8817055	0.02457432	2601.14371	0.00578518	0.01134079	0.0108502	0.40886357
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	10	DSL	5612.85306	0.07815839	0.08897738	1.30710121	10.4222839	0.02031773	2150.59275	0.00363025	0.00997314	0.0095417	0.33804323
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	15	DSL	1192.34371	0.04345173	0.04946649	0.7082022	7.28655892	0.01598836	1692.33646	0.00201822	0.00790114	0.00755934	0.26601172
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	20	DSL	1187.79508	0.02951641	0.03360219	0.47298511	5.7559764	0.0136538	1445.22873	0.00137096	0.00671357	0.00642314	0.22716983
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	25	DSL	1602.09644	0.02317967	0.02638829	0.36150289	4.48058192	0.01191546	1261.22812	0.00107664	0.00641041	0.0061331	0.1982475
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	30	DSL	1923.2568	0.01874773	0.02134286	0.2773272	3.3340031	0.01046817	1108.03548	0.00087078	0.00699168	0.00668922	0.17416775
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	35	DSL	2483.69148	0.01543992	0.01757718	0.20904218	2.41647862	0.00935641	990.35822	0.00071714	0.00845737	0.0080915	0.15567052
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	40	DSL	3184.47478	0.01325625	0.01509123	0.1566478	1.72802966	0.00858019	908.196331	0.00061572	0.01080747	0.01033995	0.14275582
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	45	DSL	3869.37945	0.01219672	0.01388503	0.12014409	1.26702785	0.0081395	861.549817	0.00056651	0.014042	0.01343455	0.13542363
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	50	DSL	3888.39334	0.01226132	0.01395858	0.09953102	1.03398254	0.00803433	850.418676	0.00056951	0.01816095	0.01737532	0.13367397
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	55	DSL	4744.17983	0.01345006	0.01531187	0.09480862	1.03047563	0.0082647	874.80291	0.00062472	0.02316432	0.02216225	0.13750684
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	60	DSL	17413.259	0.01576293	0.0179449	0.10597687	1.25708942	0.00883061	934.702519	0.00073215	0.02905212	0.02779534	0.14692222
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	65	DSL	8537.32595	0.01919994	0.02185768	0.13303577	1.70888433	0.00973204	1030.1175	0.00089179	0.03582433	0.03427459	0.16192013
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	70	DSL	1906.12592	0.02375853	0.02704728	0.1759612	1.71517543	0.00973204	1030.1175	0.00110352	0.03582433	0.03427459	0.16192013
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	75	DSL	1512.36183	0.02944062	0.03351591	0.23476836	1.71762836	0.00973204	1030.1175	0.00136744	0.03582433	0.03427459	0.16192013
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 CAIRP cons	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 NNOOS	Aggregated	5	DSL	4657.73658	0.11623817	0.13232831	1.98407987	12.515312	0.02233122	2363.71591	0.00539896	0.00983224	0.0094069	0.37154322
SAN DIEGO	2050	T7 NNOOS	Aggregated	10	DSL	10590.6756	0.07294052	0.08303723	1.21983887	9.4170249	0.01846317	1954.29044	0.0033879	0.00864651	0.00827246	0.30718724

Region	Calendar Year	Vehicle Categ	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2050	T7 NNOOS	Aggregated	15	DSL	9904.05766	0.04055088	0.04616409	0.66092248	6.58209148	0.01452897	1537.86297	0.00188348	0.00685013	0.00655379	0.24173064
SAN DIEGO	2050	T7 NNOOS	Aggregated	20	DSL	14469.9268	0.02754589	0.0313589	0.44140853	5.19850716	0.01240745	1313.30479	0.00127944	0.00582052	0.00556873	0.20643322
SAN DIEGO	2050	T7 NNOOS	Aggregated	25	DSL	12726.9674	0.02163219	0.02462661	0.33736888	4.04600602	0.01082774	1146.09522	0.00100476	0.0055577	0.00531727	0.18015021
SAN DIEGO	2050	T7 NNOOS	Aggregated	30	DSL	7034.33402	0.01749613	0.01991801	0.25881278	3.01210048	0.00951251	1006.88037	0.00081265	0.00606164	0.00579942	0.15826757
SAN DIEGO	2050	T7 NNOOS	Aggregated	35	DSL	9404.25768	0.01440915	0.01640372	0.19508648	2.18228476	0.00850217	899.937991	0.00066927	0.00733236	0.00701517	0.14145772
SAN DIEGO	2050	T7 NNOOS	Aggregated	40	DSL	8705.00681	0.01237126	0.01408374	0.14618996	1.55885924	0.00779662	825.257278	0.00057461	0.00936986	0.00896452	0.12971895
SAN DIEGO	2050	T7 NNOOS	Aggregated	45	DSL	11596.2661	0.01138246	0.01295807	0.11212324	1.14300964	0.00739615	782.868133	0.00052869	0.01217413	0.01164748	0.12305597
SAN DIEGO	2050	T7 NNOOS	Aggregated	50	DSL	17068.3892	0.01144275	0.0130267	0.09288631	0.93429161	0.00730045	772.738518	0.00053149	0.01574518	0.01506405	0.12146373
SAN DIEGO	2050	T7 NNOOS	Aggregated	55	DSL	40976.2372	0.01255213	0.01428964	0.08847918	0.93171907	0.0075096	794.876598	0.00058301	0.020083	0.01921422	0.12494353
SAN DIEGO	2050	T7 NNOOS	Aggregated	60	DSL	149524.134	0.0147106	0.01674689	0.09890183	1.13520158	0.00802357	849.279276	0.00068327	0.02518759	0.02409799	0.13349488
SAN DIEGO	2050	T7 NNOOS	Aggregated	65	DSL	273949.514	0.01791815	0.02039845	0.12415428	1.54475836	0.00884262	935.974204	0.00083225	0.03105896	0.02971537	0.14712211
SAN DIEGO	2050	T7 NNOOS	Aggregated	70	DSL	3366.69623	0.02217204	0.02524118	0.16421057	1.5415594	0.00884262	935.974204	0.00102983	0.03105896	0.02971537	0.14712211
SAN DIEGO	2050	T7 NNOOS	Aggregated	75	DSL	1.06671788	0.02747434	0.03127744	0.21908704	1.54209072	0.00884262	935.974204	0.00127611	0.03105896	0.02971537	0.14712211
SAN DIEGO	2050	T7 NNOOS	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 NNOOS	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 NNOOS	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 NOOS	Aggregated	5	DSL	1501.31317	0.12379685	0.14093329	2.11309952	13.7359111	0.02216957	2346.60599	0.00575004	0.01120348	0.01071883	0.36885378
SAN DIEGO	2050	T7 NOOS	Aggregated	10	DSL	3413.65824	0.07768366	0.08843693	1.29916187	10.3355105	0.01832952	1940.14417	0.0036082	0.00985239	0.00942618	0.30496365
SAN DIEGO	2050	T7 NOOS	Aggregated	15	DSL	3192.34289	0.0431878	0.04916603	0.70390058	7.22412812	0.0144238	1526.73104	0.00200596	0.00780548	0.00746782	0.23998086
SAN DIEGO	2050	T7 NOOS	Aggregated	20	DSL	4664.04472	0.02933713	0.03339809	0.4701122	5.70561573	0.01231761	1303.79557	0.00136263	0.00663228	0.00634537	0.20493851
SAN DIEGO	2050	T7 NOOS	Aggregated	25	DSL	4102.24226	0.02303888	0.02622801	0.35930712	4.44069928	0.01074932	1137.79444	0.0010701	0.0063328	0.00605884	0.17884544
SAN DIEGO	2050	T7 NOOS	Aggregated	30	DSL	2267.35415	0.01863386	0.02121323	0.27564272	3.30594507	0.00944358	999.584834	0.00086549	0.00690702	0.00660823	0.15712082
SAN DIEGO	2050	T7 NOOS	Aggregated	35	DSL	3031.24398	0.01534614	0.01747041	0.20777245	2.3951929	0.00844053	893.413593	0.00071279	0.00835497	0.00799353	0.14043218
SAN DIEGO	2050	T7 NOOS	Aggregated	40	DSL	2805.85671	0.01317573	0.01499957	0.15569632	1.71096756	0.00774001	819.265009	0.00061198	0.01067662	0.01021475	0.12877705
SAN DIEGO	2050	T7 NOOS	Aggregated	45	DSL	3737.78697	0.01212263	0.0138007	0.11941433	1.25457044	0.00734243	777.182497	0.00056306	0.01387199	0.01327189	0.12216227
SAN DIEGO	2050	T7 NOOS	Aggregated	50	DSL	5501.59871	0.01218684	0.01387379	0.09892647	1.02551391	0.00724737	767.119548	0.00056605	0.01794107	0.01716494	0.12058051
SAN DIEGO	2050	T7 NOOS	Aggregated	55	DSL	13207.7381	0.01336836	0.01521886	0.09423275	1.02271567	0.00745491	789.088016	0.00062093	0.02288386	0.02189391	0.12403365
SAN DIEGO	2050	T7 NOOS	Aggregated	60	DSL	48195.6308	0.01566719	0.0178359	0.10533316	1.24607638	0.00796503	843.083402	0.0007277	0.02870036	0.0274588	0.13252097
SAN DIEGO	2050	T7 NOOS	Aggregated	65	DSL	88301.2612	0.01908332	0.02172491	0.13222771	1.69561713	0.00877811	929.145851	0.00088637	0.03539058	0.0338596	0.14604879
SAN DIEGO	2050	T7 NOOS	Aggregated	70	DSL	1085.17631	0.02361332	0.02688197	0.17488394	1.69210576	0.00877811	929.145851	0.00109678	0.03539058	0.0338596	0.14604879
SAN DIEGO	2050	T7 NOOS	Aggregated	75	DSL	0.34383173	0.02925978	0.03331003	0.23332229	1.69268897	0.00877811	929.145851	0.00135904	0.03539058	0.0338596	0.14604879
SAN DIEGO	2050	T7 NOOS	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 NOOS	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 NOOS	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 other port	Aggregated	5	DSL	6162.30583	0.13115326	0.14930801	2.23866672	14.9951976	0.02369282	2507.83924	0.00609173	0.01253832	0.01199591	0.39419741
SAN DIEGO	2050	T7 other port	Aggregated	10	DSL	11208.8032	0.08229988	0.09369214	1.37636227	11.2599781	0.01958893	2073.44979	0.00382262	0.01102624	0.01054925	0.32591743
SAN DIEGO	2050	T7 other port	Aggregated	15	DSL	10363.4217	0.04575416	0.05208763	0.74572863	7.85857881	0.01541484	1631.63141	0.00212516	0.00873546	0.00835756	0.25646974
SAN DIEGO	2050	T7 other port	Aggregated	20	DSL	8013.65885	0.03108044	0.03538271	0.49804778	6.19885613	0.01316403	1393.38757	0.00144361	0.00742248	0.00710139	0.21902112
SAN DIEGO	2050	T7 other port	Aggregated	25	DSL	8328.06671	0.02440793	0.02778657	0.38065831	4.8246779	0.01148804	1215.98717	0.00113368	0.00708731	0.00678072	0.19113625
SAN DIEGO	2050	T7 other port	Aggregated	30	DSL	10319.9926	0.01974114	0.02247379	0.2920223	3.59123316	0.01009267	1068.28963	0.00091692	0.00772996	0.00739556	0.16792025
SAN DIEGO	2050	T7 other port	Aggregated	35	DSL	12740.0015	0.01625806	0.01850856	0.22011896	2.60254547	0.00902079	954.83352	0.00075514	0.00935041	0.00894592	0.15008653
SAN DIEGO	2050	T7 other port	Aggregated	40	DSL	15808.6401	0.01395868	0.01589089	0.1649483	1.86075948	0.00827241	875.618824	0.00064834	0.01194868	0.01143179	0.13763509
SAN DIEGO	2050	T7 other port	Aggregated	45	DSL	16545.0703	0.012843	0.01462078	0.12651032	1.3649288	0.00784753	830.645546	0.00059652	0.01552476	0.01485316	0.13056591
SAN DIEGO	2050	T7 other port	Aggregated	50	DSL	16815.5814	0.01291103	0.01469822	0.104805	1.11395439	0.00774614	819.913685	0.00059968	0.02007865	0.01921005	0.12887901
SAN DIEGO	2050	T7 other port	Aggregated	55	DSL	14745.0048	0.01416275	0.01612322	0.09983236	1.10908685	0.00796824	843.423243	0.00065782	0.02561034	0.02450245	0.13257439
SAN DIEGO	2050	T7 other port	Aggregated	60	DSL	9732.13753	0.01659818	0.01889577	0.1115924	1.35032469	0.00851385	901.17422	0.00077094	0.03211985	0.03073036	0.14165204
SAN DIEGO	2050	T7 other port	Aggregated	65	DSL	3828.11128	0.02021732	0.02301588	0.14008511	1.83670244	0.00938295	993.166614	0.00093904	0.03960717	0.03789378	0.15611196
SAN DIEGO	2050	T7 other port	Aggregated	70	DSL	87.5042042	0.02502015	0.02848354	0.1853105	1.83310641	0.00938295	993.166614	0.00116212	0.03960717	0.03789378	0.15611196
SAN DIEGO	2050	T7 other port	Aggregated	75	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 other port	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 other port	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 other port	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 POLA	Aggregated	5	DSL	3712.81749	0.13088049	0.14899747	2.23401067	14.9507839	0.02376921	2515.92523	0.00607906	0.01248882	0.01194856	0.39546841
SAN DIEGO	2050	T7 POLA	Aggregated	10	DSL	6753.35527	0.08212871	0.09349728	1.37349967	11.2266464	0.01965209	2080.13518	0.00381467	0.01098272	0.01050761	0.32696828
SAN DIEGO	2050	T7 POLA	Aggregated	15	DSL	6244.00905	0.045659	0.0519793	0.74417764	7.83533392	0.01546455	1636.89225	0.00212074	0.00870097	0.00832457	0.25729667
SAN DIEGO	2050	T7 POLA	Aggregated	20	DSL	4828.26617	0.0310158	0.03530912	0.49701193	6.18053058	0.01320648	1397.88025	0.0014406	0.00739318	0.00707335	0.21972731
SAN DIEGO	2050	T7 POLA	Aggregated	25	DSL	5017.69834	0.02435716	0.02772878	0.3798666	4.81041803	0.01152508	1219.90785	0.00113133	0.00705934	0.00675395	0.19175253
SAN DIEGO	2050	T7 POLA	Aggregated	30	DSL	6217.84279	0.01970008	0.02242705	0.29141494	3.58062219	0.01012521	1071.7341	0.00091502	0.00769944	0.00736637	0.16846168

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2050	T7 POLA	Aggregated	35	DSL	7675.90929	0.01622424	0.01847007	0.21966115	2.59486098	0.00904988	957.912174	0.00075357	0.0093135	0.0089106	0.15057045
SAN DIEGO	2050	T7 POLA	Aggregated	40	DSL	9524.77806	0.01392965	0.01585784	0.16460524	1.85527269	0.00829909	878.442067	0.000647	0.01190151	0.01138666	0.13807886
SAN DIEGO	2050	T7 POLA	Aggregated	45	DSL	9968.48065	0.01281629	0.01459037	0.1262472	1.36091376	0.00787283	833.323783	0.00059528	0.01546347	0.01479453	0.13098689
SAN DIEGO	2050	T7 POLA	Aggregated	50	DSL	10131.4648	0.01288417	0.01466765	0.10458703	1.11068836	0.00777111	822.557319	0.00059844	0.01999938	0.01913422	0.12929456
SAN DIEGO	2050	T7 POLA	Aggregated	55	DSL	8883.93294	0.0141333	0.01608968	0.09962473	1.10584338	0.00799394	846.142679	0.00065646	0.02550924	0.02440572	0.13300185
SAN DIEGO	2050	T7 POLA	Aggregated	60	DSL	5863.65744	0.01656366	0.01885647	0.11136031	1.34637737	0.0085413	904.079861	0.00076934	0.03199305	0.03060905	0.14210876
SAN DIEGO	2050	T7 POLA	Aggregated	65	DSL	2306.45458	0.02017527	0.02296801	0.13979376	1.83132768	0.0094132	996.368864	0.00093709	0.03945082	0.03774419	0.15661531
SAN DIEGO	2050	T7 POLA	Aggregated	70	DSL	52.7216838	0.02496798	0.02842415	0.1849238	1.82774218	0.0094132	996.368864	0.0011597	0.03945082	0.03774419	0.15661531
SAN DIEGO	2050	T7 POLA	Aggregated	75	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 POLA	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 POLA	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 POLA	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 Public	Aggregated	5	DSL	1066.81131	0.14251578	0.16224336	1.62731375	8.67039088	0.02568828	2719.05467	0.00661949	0.00746898	0.00714588	0.42739753
SAN DIEGO	2050	T7 Public	Aggregated	10	DSL	1872.10643	0.09831952	0.11192929	1.02592694	6.5970928	0.0213222	2256.91303	0.00456669	0.00664753	0.00635996	0.3547553
SAN DIEGO	2050	T7 Public	Aggregated	15	DSL	1437.87073	0.05957227	0.06781849	0.57196208	4.66817432	0.01683879	1782.35361	0.00276698	0.00544275	0.0052073	0.28016117
SAN DIEGO	2050	T7 Public	Aggregated	20	DSL	1073.61602	0.04094257	0.04661	0.38536408	3.70393332	0.01439389	1523.56503	0.00190168	0.00471429	0.00451035	0.23948321
SAN DIEGO	2050	T7 Public	Aggregated	25	DSL	1785.02525	0.03121372	0.03553444	0.29330987	2.93127604	0.01258815	1332.43122	0.0014498	0.00443715	0.0042452	0.20943963
SAN DIEGO	2050	T7 Public	Aggregated	30	DSL	2900.546	0.02437768	0.02775214	0.2244861	2.24817569	0.01109642	1174.53496	0.00113228	0.00459589	0.00439708	0.18462054
SAN DIEGO	2050	T7 Public	Aggregated	35	DSL	3403.5074	0.01928971	0.02195987	0.1693905	1.69899745	0.00994962	1053.14832	0.00089596	0.00517807	0.00495407	0.16554025
SAN DIEGO	2050	T7 Public	Aggregated	40	DSL	3555.88092	0.01571148	0.01788633	0.12736522	1.28590256	0.00914464	967.942122	0.00072976	0.00617906	0.00591176	0.15214702
SAN DIEGO	2050	T7 Public	Aggregated	45	DSL	3730.55814	0.01346735	0.01533155	0.0979255	1.01082949	0.00867964	918.723383	0.00062552	0.00759599	0.00726739	0.14441052
SAN DIEGO	2050	T7 Public	Aggregated	50	DSL	2442.84512	0.01242789	0.01414821	0.08071408	0.86932265	0.00855349	905.370209	0.00057724	0.00942694	0.00901913	0.14231159
SAN DIEGO	2050	T7 Public	Aggregated	55	DSL	2437.66865	0.01249773	0.01422771	0.0754677	0.86268295	0.00876541	927.80117	0.00058049	0.01167058	0.01116572	0.14583742
SAN DIEGO	2050	T7 Public	Aggregated	60	DSL	2858.18699	0.01387545	0.01579614	0.08259246	0.99391074	0.00932148	986.660392	0.00064448	0.01429897	0.0136804	0.15508927
SAN DIEGO	2050	T7 Public	Aggregated	65	DSL	1277.67486	0.01639187	0.0186609	0.10162138	1.26145516	0.01021908	1081.67005	0.00076136	0.01729683	0.01654858	0.17002347
SAN DIEGO	2050	T7 Public	Aggregated	70	DSL	697.227057	0.01951514	0.0222165	0.13103129	1.26493908	0.01021908	1081.67005	0.00090643	0.01729683	0.01654858	0.17002347
SAN DIEGO	2050	T7 Public	Aggregated	75	DSL	203.670744	0.02340816	0.02664841	0.1713224	1.26673609	0.01021908	1081.67005	0.00108725	0.01729683	0.01654858	0.17002347
SAN DIEGO	2050	T7 Public	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 Public	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 Public	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 Single	Aggregated	5	DSL	2519.9465	0.10847003	0.12348487	1.85148499	11.1987224	0.02516901	2664.09073	0.00503815	0.00841929	0.00805507	0.41875796
SAN DIEGO	2050	T7 Single	Aggregated	10	DSL	5871.69268	0.06806594	0.07748789	1.13831776	8.43620523	0.02080942	2202.63654	0.00316149	0.00740396	0.00708366	0.34622379
SAN DIEGO	2050	T7 Single	Aggregated	15	DSL	7302.13479	0.03784089	0.04307897	0.61675342	5.9002364	0.01637527	1733.29057	0.00175761	0.00586573	0.00561198	0.27244914
SAN DIEGO	2050	T7 Single	Aggregated	20	DSL	9329.53938	0.02570501	0.0292632	0.41190946	4.66202309	0.01398422	1480.2029	0.00119393	0.00498408	0.00476847	0.23266728
SAN DIEGO	2050	T7 Single	Aggregated	25	DSL	12825.0515	0.02018652	0.02298082	0.31482272	3.6280275	0.01220381	1291.74952	0.00093761	0.00475902	0.00455315	0.20304504
SAN DIEGO	2050	T7 Single	Aggregated	30	DSL	16167.7999	0.01632687	0.0185869	0.24151648	2.70068303	0.0107215	1134.84966	0.00075834	0.00519055	0.00496601	0.17838256
SAN DIEGO	2050	T7 Single	Aggregated	35	DSL	13934.7698	0.01344619	0.01530747	0.18204896	1.96007454	0.00958284	1014.32464	0.00062454	0.00627866	0.00600705	0.15943771
SAN DIEGO	2050	T7 Single	Aggregated	40	DSL	8924.34118	0.0115445	0.01314253	0.13642017	1.40518702	0.00878783	930.174451	0.00053621	0.00802336	0.00767627	0.14621047
SAN DIEGO	2050	T7 Single	Aggregated	45	DSL	7151.62865	0.01062178	0.01209208	0.10463011	1.03556546	0.00833647	882.399103	0.00049335	0.01042464	0.00997367	0.13870085
SAN DIEGO	2050	T7 Single	Aggregated	50	DSL	16905.9445	0.01067804	0.01215613	0.08667878	0.85140705	0.00822876	870.998591	0.00049597	0.01348251	0.01289926	0.13690885
SAN DIEGO	2050	T7 Single	Aggregated	55	DSL	43518.4612	0.01171328	0.01333467	0.08256616	0.85233544	0.00846471	895.972918	0.00054405	0.01719696	0.01645302	0.14083447
SAN DIEGO	2050	T7 Single	Aggregated	60	DSL	31378.1931	0.01372749	0.01562771	0.09229228	1.03901526	0.0090443	957.322082	0.00063761	0.02156799	0.02063497	0.1504777
SAN DIEGO	2050	T7 Single	Aggregated	65	DSL	10033.3868	0.01672069	0.01903523	0.11585712	1.40895896	0.00996755	1055.04608	0.00077663	0.02659562	0.0254451	0.16583855
SAN DIEGO	2050	T7 Single	Aggregated	70	DSL	875.840261	0.02063462	0.02349095	0.15271224	1.40997326	0.00996755	1055.04608	0.00095842	0.02659562	0.0254451	0.16583855
SAN DIEGO	2050	T7 Single	Aggregated	75	DSL	32.415612	0.02551318	0.02904481	0.20320318	1.41411087	0.00996755	1055.04608	0.00118502	0.02659562	0.0254451	0.16583855
SAN DIEGO	2050	T7 Single	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 Single	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 Single	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 single cons	Aggregated	5	DSL	20243.8662	0.10838294	0.12338573	1.84771015	11.1985386	0.02510206	2657.00428	0.00503411	0.00838668	0.00802388	0.41764407
SAN DIEGO	2050	T7 single cons	Aggregated	10	DSL	13924.4561	0.06803214	0.07744941	1.13604825	8.41439642	0.02075429	2196.80086	0.00315992	0.0073758	0.00705673	0.3453065
SAN DIEGO	2050	T7 single cons	Aggregated	15	DSL	2957.98544	0.03782487	0.04306073	0.61554643	5.88896725	0.016332	1728.71025	0.00175687	0.00584429	0.00559147	0.27172918
SAN DIEGO	2050	T7 single cons	Aggregated	20	DSL	2946.70113	0.02568828	0.02924416	0.41110302	4.65535373	0.01394724	1476.28842	0.00119315	0.00496627	0.00475143	0.23205198
SAN DIEGO	2050	T7 single cons	Aggregated	25	DSL	3974.5066	0.02017226	0.02296459	0.31420827	3.62504928	0.01217159	1288.3389	0.00093695	0.00474187	0.00453674	0.20250893
SAN DIEGO	2050	T7 single cons	Aggregated	30	DSL	4771.24638	0.01631507	0.01857347	0.24105026	2.69871204	0.01069328	1131.86313	0.00075779	0.00517108	0.00494738	0.17791312
SAN DIEGO	2050	T7 single cons	Aggregated	35	DSL	6161.58175	0.01343606	0.01529593	0.18170415	1.95798258	0.00955769	1011.6634	0.00062407	0.00625383	0.00598329	0.1590194
SAN DIEGO	2050	T7 single cons	Aggregated	40	DSL	7900.0962	0.01153495	0.01313166	0.13616918	1.40287855	0.00876482	927.739407	0.00053577	0.00799013	0.00764448	0.14582772
SAN DIEGO	2050	T7 single cons	Aggregated	45	DSL	9599.21871	0.01061153	0.01208042	0.10444477	1.03207775	0.00831466	880.090941	0.00049288	0.01037996	0.00993092	0.13833804
SAN DIEGO	2050	T7 single cons	Aggregated	50	DSL	9646.38869	0.01066564	0.01214202	0.08653052	0.84598626	0.00820722	868.717883	0.00049539	0.01342332	0.01284263	0.13655035

Region	Calendar Year	Vehicle Categ	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2050	T7 single cons	Aggregated	55	DSL	11769.4376	0.01169719	0.01331636	0.08242612	0.84589673	0.00844248	893.620152	0.0005433	0.01712021	0.01637959	0.14046464
SAN DIEGO	2050	T7 single cons	Aggregated	60	DSL	43199.0928	0.01370654	0.01560385	0.09213098	1.03229422	0.00902046	954.798204	0.00063663	0.02147011	0.02054133	0.15008098
SAN DIEGO	2050	T7 single cons	Aggregated	65	DSL	21179.5354	0.01669335	0.01900411	0.11564416	1.40111147	0.00994115	1052.25099	0.00077536	0.02647289	0.02532769	0.1653992
SAN DIEGO	2050	T7 single cons	Aggregated	70	DSL	4728.74781	0.02060776	0.02346036	0.15250374	1.40626953	0.00994115	1052.25099	0.00095718	0.02647289	0.02532769	0.1653992
SAN DIEGO	2050	T7 single cons	Aggregated	75	DSL	3751.89153	0.0254869	0.0290149	0.20300078	1.40828069	0.00994115	1052.25099	0.0011838	0.02647289	0.02532769	0.1653992
SAN DIEGO	2050	T7 single cons	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 single cons	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 single cons	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 SWCV	Aggregated	5	DSL	21.8102488	0.19772978	0.2251003	0.56722336	18.4080167	0.07432729	7867.39905	0.00918404	0.01557227	0.01489862	1.23664557
SAN DIEGO	2050	T7 SWCV	Aggregated	5	NG	2382.88766	0.17582405	12.5405466	45.3370902	1.19905626	0	4089.32154	12.2874556	0.00487272	0.00466193	0.83363495
SAN DIEGO	2050	T7 SWCV	Aggregated	10	DSL	57.022613	0.14956578	0.17026925	0.42735887	15.9027805	0.06628083	7015.69787	0.00694694	0.01429896	0.0136804	1.10277001
SAN DIEGO	2050	T7 SWCV	Aggregated	10	NG	6230.02893	0.14239894	10.1565205	36.7182629	0.96447662	0	3625.93278	9.95154355	0.00438322	0.0041936	0.73917012
SAN DIEGO	2050	T7 SWCV	Aggregated	15	DSL	61.0198366	0.09912127	0.11284202	0.28319447	12.3745218	0.05528998	5852.33721	0.00460393	0.01249994	0.0119592	0.91990591
SAN DIEGO	2050	T7 SWCV	Aggregated	15	NG	6666.74723	0.10028829	7.15300291	25.8598248	0.66887492	0	3042.13199	7.00864234	0.00376652	0.00360358	0.62015851
SAN DIEGO	2050	T7 SWCV	Aggregated	20	DSL	51.2734497	0.07019868	0.07991585	0.20090433	10.0382724	0.04754133	5032.15781	0.00326055	0.01119263	0.01070844	0.79098513
SAN DIEGO	2050	T7 SWCV	Aggregated	20	NG	5601.90173	0.07255071	5.17463642	18.7075544	0.47396775	0	2657.59225	5.07020288	0.00336031	0.00321495	0.54176756
SAN DIEGO	2050	T7 SWCV	Aggregated	25	DSL	62.2555092	0.05220304	0.05942919	0.14893617	8.9255	0.04290138	4541.02777	0.0024247	0.01036185	0.0099136	0.71378633
SAN DIEGO	2050	T7 SWCV	Aggregated	25	NG	6801.75114	0.05316836	3.79220214	13.7097222	0.33735855	0	2452.78149	3.71566863	0.00305691	0.00292467	0.50001555
SAN DIEGO	2050	T7 SWCV	Aggregated	30	DSL	64.7691752	0.03935039	0.04479742	0.1114482	8.23470293	0.03980598	4213.38547	0.00182772	0.00994146	0.0095114	0.66228552
SAN DIEGO	2050	T7 SWCV	Aggregated	30	NG	7076.38275	0.03918126	2.79458018	10.103079	0.25569671	0	2322.40939	2.73818048	0.00281465	0.00269289	0.47343835
SAN DIEGO	2050	T7 SWCV	Aggregated	35	DSL	70.5381968	0.02984312	0.03397412	0.08337322	7.67708074	0.03736082	3954.57014	0.00138614	0.00984816	0.00942213	0.62160336
SAN DIEGO	2050	T7 SWCV	Aggregated	35	NG	7706.67956	0.02887377	2.05940456	7.44524246	0.20302586	0	2219.17897	2.01784204	0.00261297	0.00249993	0.45239415
SAN DIEGO	2050	T7 SWCV	Aggregated	40	DSL	77.3153756	0.02293786	0.026113	0.06257123	7.23193417	0.0354235	3749.50851	0.0010654	0.01006032	0.00962511	0.58937052
SAN DIEGO	2050	T7 SWCV	Aggregated	40	NG	8447.12301	0.02127789	1.51763301	5.4866081	0.16662204	0	2134.40709	1.48700442	0.00244021	0.00233465	0.43511285
SAN DIEGO	2050	T7 SWCV	Aggregated	45	DSL	85.5512749	0.01808677	0.02059041	0.04746523	6.89023712	0.03391053	3589.36416	0.00084008	0.01056448	0.01010747	0.56419806
SAN DIEGO	2050	T7 SWCV	Aggregated	45	NG	9346.93956	0.01568027	1.11838635	4.04323548	0.14022824	0	2062.92051	1.09581529	0.0022891	0.00219008	0.42053984
SAN DIEGO	2050	T7 SWCV	Aggregated	50	DSL	79.1684244	0.01488616	0.01694676	0.03689309	6.64296707	0.03276919	3468.55548	0.00069142	0.01135171	0.01086064	0.54520862
SAN DIEGO	2050	T7 SWCV	Aggregated	50	NG	8649.57862	0.01155523	0.82417029	2.97957369	0.12033336	0	2001.40603	0.80753704	0.00215483	0.00206161	0.40799971
SAN DIEGO	2050	T7 SWCV	Aggregated	55	DSL	63.0623247	0.01303853	0.01484337	0.02999838	6.4840523	0.03196425	3383.35367	0.00060561	0.01241575	0.01187865	0.53181608
SAN DIEGO	2050	T7 SWCV	Aggregated	55	NG	6889.9001	0.00851538	0.60735421	2.19573147	0.10486869	0	1947.62332	0.59509671	0.002034	0.00194601	0.39703575
SAN DIEGO	2050	T7 SWCV	Aggregated	60	DSL	91.1984866	0.01313152	0.01494924	0.02830181	6.44838869	0.03176115	3361.85583	0.00060993	0.01334726	0.01276987	0.52843692
SAN DIEGO	2050	T7 SWCV	Aggregated	60	NG	9963.92799	0.00730998	0.52138027	1.88491501	0.09843598	0	1923.11886	0.51085788	0.00197784	0.00189228	0.39204036
SAN DIEGO	2050	T7 SWCV	Aggregated	65	DSL	17.4389368	0.01466964	0.01670026	0.03036074	6.4695455	0.03198645	3385.70388	0.00068137	0.01400612	0.01340022	0.5321855
SAN DIEGO	2050	T7 SWCV	Aggregated	65	NG	1905.29817	0.00730998	0.52138027	1.88491501	0.09843269	0	1923.11886	0.51085788	0.00197784	0.00189228	0.39204036
SAN DIEGO	2050	T7 SWCV	Aggregated	70	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 SWCV	Aggregated	70	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 SWCV	Aggregated	75	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 SWCV	Aggregated	75	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 SWCV	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 SWCV	Aggregated	80	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 SWCV	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 SWCV	Aggregated	85	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 SWCV	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 SWCV	Aggregated	90	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	T7 tractor	Aggregated	5	DSL	2901.60689	0.12374601	0.14087542	2.11223181	13.7257804	0.02229051	2359.40758	0.00574768	0.01119384	0.0107096	0.37086602
SAN DIEGO	2050	T7 tractor	Aggregated	10	DSL	6196.81715	0.07765176	0.08840062	1.2986284	10.3281275	0.01842951	1950.72837	0.00360672	0.0098439	0.00941806	0.30662733
SAN DIEGO	2050	T7 tractor	Aggregated	15	DSL	7901.15465	0.04317007	0.04914584	0.70361154	7.2185205	0.01450249	1535.05992	0.00200514	0.00779876	0.00746139	0.24129004
SAN DIEGO	2050	T7 tractor	Aggregated	20	DSL	9027.9635	0.02932508	0.03338438	0.46991915	5.70195512	0.01238465	1310.89157	0.00136207	0.00662657	0.00633991	0.2060539
SAN DIEGO	2050	T7 tractor	Aggregated	25	DSL	10981.5891	0.02302942	0.02621724	0.35915958	4.43692047	0.01080769	1143.97319	0.00106966	0.00632734	0.00605363	0.17981665
SAN DIEGO	2050	T7 tractor	Aggregated	30	DSL	13869.5794	0.0186262	0.02120452	0.27552953	3.30184639	0.00949469	1004.99472	0.00086514	0.00690108	0.00660254	0.15797117
SAN DIEGO	2050	T7 tractor	Aggregated	35	DSL	16177.1466	0.01533984	0.01746324	0.20768714	2.39349711	0.008486	898.226308	0.0007125	0.00834777	0.00798665	0.14118867
SAN DIEGO	2050	T7 tractor	Aggregated	40	DSL	20260.0313	0.01317032	0.01499341	0.15563239	1.71100348	0.00778117	823.622183	0.00061173	0.01066743	0.01020596	0.12946194
SAN DIEGO	2050	T7 tractor	Aggregated	45	DSL	23878.5387	0.01211766	0.01379503	0.1193653	1.25534121	0.00738142	781.30887	0.00056283	0.01386004	0.01326046	0.12281087
SAN DIEGO	2050	T7 tractor	Aggregated	50	DSL	36277.7616	0.01218184	0.0138681	0.09888585	1.02556119	0.00728545	771.15083	0.00056581	0.01792562	0.01715017	0.12121417
SAN DIEGO	2050	T7 tractor	Aggregated	55	DSL	81445.0578	0.01336287	0.01521261	0.09419406	1.02240678	0.0074936	793.182603	0.00062067	0.02286416	0.02187506	0.12467726
SAN DIEGO	2050	T7 tractor	Aggregated	60	DSL	256420.257	0.01566076	0.01782858	0.10528991	1.24544766	0.00800573	847.391084	0.0007274	0.02867565	0.02743516	0.13319808
SAN DIEGO	2050	T7 tractor	Aggregated	65	DSL	177274.235	0.01907549	0.02171599	0.13217342	1.69865379	0.00882296	933.893264	0.00088601	0.03536011	0.03383045	0.14679502
SAN DIEGO	2050	T7 tractor	Aggregated	70	DSL	53545.2021	0.02359735	0.02686379	0.17475305	1.70341167	0.00882296	933.893264	0.00109604	0.03536011	0.03383045	0.14679502

[illegible]

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	SOx_RUNEX	CO2_RUNEX	CH4_RUNEX	PM10_RUNEX	PM2_5_RUNEX	N2O_RUNEX
SAN DIEGO	2050	UBUS	Aggregated	10	NG	9678.86036	0.11940219	8.52872771	59.1437636	0.64055371	0	2474.31359	8.35680035	0.00536329	0.00513127	0.50440501
SAN DIEGO	2050	UBUS	Aggregated	15	GAS	9217.21826	0.0140472	0.02049764	0.23675873	0.27707654	0.01357169	1371.45857	0.00466907	0.0032584	0.00299598	0.02193564
SAN DIEGO	2050	UBUS	Aggregated	15	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	15	NG	16491.0614	0.10526668	7.51904839	54.7910129	0.56159676	0	2238.12606	7.36747477	0.00432663	0.00413947	0.45625664
SAN DIEGO	2050	UBUS	Aggregated	20	GAS	27973.6263	0.0174252	0.02542681	0.33418703	0.2900598	0.01486282	1501.93012	0.00571061	0.00228172	0.00209795	0.02503546
SAN DIEGO	2050	UBUS	Aggregated	20	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	20	NG	144469.829	0.09523737	6.80266952	51.7026872	0.50557591	0	2070.54833	6.66553711	0.00343355	0.00328502	0.42209482
SAN DIEGO	2050	UBUS	Aggregated	25	GAS	6475.09961	0.00470678	0.00686812	0.14935266	0.21312094	0.00826439	835.140626	0.00159121	0.0016856	0.00154984	0.01600459
SAN DIEGO	2050	UBUS	Aggregated	25	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	25	NG	1744.97633	0.08745804	6.24700289	49.3071957	0.46212276	0	1940.56495	6.12107195	0.00268403	0.00256792	0.39559686
SAN DIEGO	2050	UBUS	Aggregated	30	GAS	6098.4646	0.00370642	0.00540839	0.13835295	0.19777068	0.00735707	743.452789	0.00125238	0.00131365	0.00120785	0.01486814
SAN DIEGO	2050	UBUS	Aggregated	30	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	30	NG	1823.96254	0.08110186	5.7929902	47.3499366	0.42661895	0	1834.36079	5.67621153	0.00207808	0.00198819	0.37394645
SAN DIEGO	2050	UBUS	Aggregated	35	GAS	2152.27831	0.00388985	0.00567606	0.14905992	0.19517972	0.00741376	749.181348	0.00130056	0.00108004	0.00099306	0.01508867
SAN DIEGO	2050	UBUS	Aggregated	35	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	35	NG	2357.14685	0.07572779	5.40912794	45.6950977	0.39660091	0	1744.56646	5.3000874	0.0016157	0.00154581	0.35564128
SAN DIEGO	2050	UBUS	Aggregated	40	GAS	1013.54889	0.00522719	0.0076275	0.18840846	0.20507989	0.0086233	871.408905	0.00172422	0.00093677	0.00086133	0.01682113
SAN DIEGO	2050	UBUS	Aggregated	40	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	40	NG	3140.40247	0.07107256	5.07661132	44.2616109	0.3705981	0	1666.78306	4.97427386	0.00129689	0.00124079	0.33978463
SAN DIEGO	2050	UBUS	Aggregated	45	GAS	1467.54194	0.00367208	0.00535829	0.14408628	0.18808369	0.00770682	778.796696	0.00122023	0.00085717	0.00078813	0.01486422
SAN DIEGO	2050	UBUS	Aggregated	45	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	45	NG	2629.80904	0.06696635	4.78331088	42.997186	0.347662	0	1598.17325	4.68688595	0.00112164	0.00107312	0.32579807
SAN DIEGO	2050	UBUS	Aggregated	50	GAS	6042.24004	0.0024162	0.00352571	0.10414503	0.1726688	0.00690186	697.453083	0.00081498	0.00082743	0.00076079	0.01303598
SAN DIEGO	2050	UBUS	Aggregated	50	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	50	NG	2474.95817	0.06329323	4.5209447	41.8661194	0.32714496	0	1536.79968	4.4298087	0.00108996	0.00104281	0.31328667
SAN DIEGO	2050	UBUS	Aggregated	55	GAS	1988.19391	0.00384194	0.00560615	0.13066053	0.1911705	0.00849913	858.86095	0.00127406	0.00084262	0.00077476	0.01525858
SAN DIEGO	2050	UBUS	Aggregated	55	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	55	NG	4178.20987	0.05997048	4.28360561	40.8429452	0.30858503	0	1481.28054	4.19725405	0.00120185	0.00114986	0.30196873
SAN DIEGO	2050	UBUS	Aggregated	60	GAS	897.003999	0.0085213	0.01243426	0.21591552	0.23726809	0.01284251	1297.77209	0.00278258	0.00090524	0.00083234	0.02123882
SAN DIEGO	2050	UBUS	Aggregated	60	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	60	NG	6324.30308	0.05693705	4.06693201	39.9088603	0.29164115	0	1430.59553	3.98494828	0.0014573	0.00139426	0.29163626
SAN DIEGO	2050	UBUS	Aggregated	65	GAS	134.997214	0.00971093	0.01417017	0.20363785	0.2431699	0.0132347	1337.40413	0.00317105	0.00102597	0.00094334	0.02176712
SAN DIEGO	2050	UBUS	Aggregated	65	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	65	NG	951.794304	0.05414656	3.86761161	39.0495855	0.27605429	0	1383.96984	3.78964591	0.00185633	0.00177602	0.2821313
SAN DIEGO	2050	UBUS	Aggregated	70	GAS	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	70	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	70	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	75	GAS	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	75	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	75	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	80	GAS	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	80	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	80	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	85	GAS	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	85	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	85	NG	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	90	GAS	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	90	DSL	0	0	0	0	0	0	0	0	0	0	0
SAN DIEGO	2050	UBUS	Aggregated	90	NG	0	0	0	0	0	0	0	0	0	0	0

R-C3 – CalEEMod Analysis Data

Cumulative Analysis - Near Term

Average Annual Construction Emissions (2018-2027)

Component	ROG tons/yr	NOx tons/yr	CO tons/yr	SO2 tons/yr	PM10 Total tons/yr	PM2.5 Total tons/yr	CO2e metric tons/yr
Hotel	14.50	29.45	25.51	0.12	7.40	2.29	11,161
Office	3.30	3.65	3.00	0.01	0.71	0.26	1,096
Residential	2.86	0.90	1.11	0.00	0.27	0.10	312
Restaurants	0.23	0.32	0.29	0.00	0.03	0.02	52
Warehouse Facilities	0.33	0.36	0.33	0.00	0.05	0.03	62
Additional Dev.	1.15	0.66	0.56	0.00	0.10	0.05	146
Total	22.36	35.34	30.80	0.14	8.56	2.75	12,830

Daily Construction Emissions (2018-2027)

Component	ROG lb/day	NOx lb/day	CO lb/day	SO2 lb/day	PM10 Total lb/day	PM2.5 Total lb/day	CO2e lb/day
Hotel	111.26	225.91	195.70	0.91	56.77	17.57	85,620
Office	25.28	27.97	23.02	0.09	5.45	2.02	8,409
Residential	21.96	6.90	8.52	0.03	2.05	0.74	2,397
Restaurants	1.73	2.45	2.25	0.00	0.25	0.16	396
Warehouse Facilities	2.53	2.79	2.52	0.01	0.37	0.22	477
Additional Dev.	8.80	5.10	4.26	0.01	0.77	0.37	1,120
Total	171.56	271.12	236.27	1.04	65.66	21.08	98,418

Cumulative Analysis - Long Term

Daily Construction Emissions (2028-2048)

Component	ROG lb/day	NOx lb/day	CO lb/day	SO2 lb/day	PM10 Total lb/day	PM2.5 Total lb/day	CO2e lb/day
Long-Term Dev.	53.95	111.07	90.14	0.58	41.84	11.87	55,713
Total	53.95	111.07	90.14	0.58	41.84	11.87	55,713

Average Annual Operational Emissions

Component	ROG tons/yr	NOx tons/yr	CO tons/yr	SO2 tons/yr	PM10 Total tons/yr	PM2.5 Total tons/yr	CO2e metric tons/yr
Hotel	55.35	60.53	111.52	0.48	35.72	11.11	97,339
Office	15.63	18.27	45.50	0.18	17.48	4.89	32,205
Residential	108.49	8.43	149.73	0.29	24.02	18.98	12,485
Restaurants	2.99	9.70	19.54	0.07	5.97	1.70	9,226
Warehouse Facilities ^[A]	-	-	-	-	-	-	-
Additional Dev.	5.86	7.44	17.99	0.07	6.88	1.95	13,384
Total	188.33	104.37	344.28	1.09	90.06	38.63	164,639

[A] Included in the operation of other components.

Daily Operational Emissions

Component	ROG lb/day	NOx lb/day	CO lb/day	SO2 lb/day	PM10 Total lb/day	PM2.5 Total lb/day	CO2e lb/day
Hotel	308.84	339.66	642.07	2.80	208.78	64.33	366,775
Office	94.19	127.77	333.98	1.33	129.07	35.78	143,352
Residential	2,453.17	84.90	3,184.97	5.78	456.29	426.38	108,370
Restaurants	18.20	56.33	117.32	0.41	35.93	10.18	46,479
Warehouse Facilities ^[A]	-	-	-	-	-	-	-
Additional Dev.	35.56	52.24	134.20	0.54	51.76	14.48	59,940
Total	2,909.96	660.90	4,412.55	10.86	881.83	551.15	724,916

[A] Included in the operation of other components.

Average Annual Operational Emissions

Component	ROG tons/yr	NOx tons/yr	CO tons/yr	SO2 tons/yr	PM10 Total tons/yr	PM2.5 Total tons/yr	CO2e metric tons/yr
Long-Term Dev.	62.36	71.68	119.65	0.56	47.24	14.36	115,391
Total	62.36	71.68	119.65	0.56	47.24	14.36	115,391

Daily Operational Emissions

Component	ROG lb/day	NOx lb/day	CO lb/day	SO2 lb/day	PM10 Total lb/day	PM2.5 Total lb/day	CO2e lb/day
Long-Term Dev.	348.71	409.57	706.56	3.35	285.34	85.67	435,855
Total	348.71	409.57	706.56	3.35	285.34	85.67	435,855

Long-Term
Operational

ANNUAL																	
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Area	50.3544	5.80E-04	0.0646	0		2.30E-04	2.30E-04		2.30E-04	2.30E-04	0	0.1264	0.1264	3.30E-04	0	0.1345	
Energy	3.1108	28.2795	23.7546	0.1697		2.1492	2.1492		2.1492	2.1492	0	74.340.22	74.340.22	2.3432	0.9271	74.675.07	
Mobile	8.8954	43.4039	95.8303	0.9915		44.8656	45.0914		12.0153	0.1912	12.2066	0	36.562.02	36.562.02	1.8492	0	36.608.22
Waste						0	0		0		841.5944	0	841.5944	49.7368	0	2.085.01	
Water						0	0		0		96.1208	1,604.53	1,700.65	9.9371	0.2465	2,022.53	
Total	62.3606	71.684	119.6497	0.5612	44.8856	2.3553	47.2409	12.0153	2.3407	14.356	937.7152	112,506.89	113,444.61	63.8656	1.1736	115,390.98	

WINTER																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	275.948	6.45E-03	0.7179	5.00E-05		2.55E-03	2.55E-03		2.55E-03	2.55E-03		1.5477	1.5477	3.99E-03		1.6474
Energy	17.0452	154.9563	130.1633	0.9297		11.7767	11.7767		11.7767	11.7767		185.947.51	185.947.51	3.564	3.409	187,052.50
Mobile	53.8322	254.6077	575.6809	2.293	272.3378	1.2221	273.5599	72.7595	1.1355	73.895		235.956.24	235.956.24	12.2228		236,261.81
Total	346.8254	409.5705	706.562	3.2228	272.3378	13.0013	285.3392	72.7595	12.9147	85.6742		421.905.30	421.905.30	15.7908	3.409	423.315.96

SUMMER																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	275.948	6.45E-03	0.7179	5.00E-05		2.55E-03	2.55E-03		2.55E-03	2.55E-03		1.5477	1.5477	3.99E-03		1.6474
Energy	17.0452	154.9563	130.1633	0.9297		11.7767	11.7767		11.7767	11.7767		185.947.51	185.947.51	3.564	3.409	187,052.50
Mobile	55.7142	252.2433	575.453	2.4158		272.3378	1.2177	273.5555	72.7595	1.1313	73.8908		248,500.05	248,500.05	12.0344	248,800.91
Total	348.7074	407.206	706.3342	3.3456	272.3378	12.9969	285.3347	72.7595	12.9105	85.67		434,449.11	434,449.11	15.6024	3.409	435,855.06

ANNUAL - CONSTRUCTION ESTIMATES

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr										MT/yr						
	0.2782	2.51	2.5666	5.19E-03	0.0157	0.1114	0.1271	4.17E-03	0.1034	0.1076	0	454.5743	454.5743	0.1241	0	457.6775
	0.3286	3.22	2.5671	5.60E-03	2.3945	0.1377	2.5222	1.0331	0.1299	1.16	0	491.7809	491.7809	0.1523	0	495.5893
	0.3847	3.65	3.4752	6.25E-03	1.4232	0.1477	1.5709	0.5041	0.1359	0.64	0	725.0151	725.0151	0.2303	0	730.7735
	0.9277	7.32	7.2515	0.0384	3.2666	0.061	3.3276	0.9223	0.0601	0.9824	0	3,646.86	3,646.86	0.1766	0	3,651.27
	1.6611	16.3	13.8377	0.086	5.7163	0.0545	5.7708	1.5514	0.0523	1.6037	0	8,192.88	8,192.88	0.4078	0	8,203.08
	1.5898	16.2	13.5373	0.0856	5.7382	0.0532	5.7914	1.5574	0.0511	1.6084	0	8,159.03	8,159.03	0.4055	0	8,169.17
	1.5108	16	13.1339	0.0843	5.6944	0.0514	5.7458	1.5455	0.0494	1.5948	0	8,041.60	8,041.60	0.3991	0	8,051.58
	1.4536	15.8	12.8432	0.0837	5.6944	0.0501	5.7445	1.5455	0.0482	1.5936	0	7,995.03	7,995.03	0.3962	0	8,004.94
	1.3976	15.7	12.6356	0.0836	5.7163	0.0416	5.7579	1.5514	0.0397	1.5912	0	7,966.78	7,966.78	0.394	0	7,996.63
	1.403	15.8	12.684	0.0839	5.7382	0.0418	5.78	1.5574	0.0399	1.5973	0	8,017.38	8,017.38	0.3956	0	8,027.27
	1.3976	15.7	12.6356	0.0836	5.7163	0.0416	5.7579	1.5514	0.0397	1.5912	0	7,966.78	7,966.78	0.394	0	7,996.63
	1.3976	15.7	12.6356	0.0836	5.7163	0.0416	5.7579	1.5514	0.0397	1.5912	0	7,966.78	7,966.78	0.394	0	7,996.63
	1.3923	15.6	12.5672	0.0833	5.6944	0.0414	5.7358	1.5455	0.0396	1.5891	0	7,956.18	7,956.18	0.3925	0	7,965.99
	1.2135	15.4	11.8101	0.0824	5.7163	0.0356	5.752	1.5514	0.0341	1.5855	0	7,881.21	7,881.21	0.3833	0	7,890.79
	1.2135	15.4	11.8101	0.0824	5.7163	0.0356	5.752	1.5514	0.0341	1.5855	0	7,881.21	7,881.21	0.3833	0	7,890.79
	1.2135	15.4	11.8101	0.0824	5.7163	0.0356	5.752	1.5514	0.0341	1.5855	0	7,881.21	7,881.21	0.3833	0	7,890.79
	1.2135	15.4	11.8101	0.0824	5.7163	0.0356	5.752	1.5514	0.0341	1.5855	0	7,881.21	7,881.21	0.3833	0	7,890.79
	1.1328	15.2	11.3957	0.0816	5.6945	0.0339	5.7284	1.5455	0.0325	1.578	0	7,799.52	7,799.52	0.3719	0	7,808.82
	1.1372	15.2	11.4395	0.0819	5.7164	0.0341	5.7504	1.5515	0.0326	1.5841	0	7,829.52	7,829.52	0.3733	0	7,838.86
	1.1372	15.2	11.4395	0.0819	5.7164	0.0341	5.7504	1.5515	0.0326	1.5841	0	7,829.52	7,829.52	0.3733	0	7,838.86
	0.5843	7.1	6.2648	0.0386	2.5712	0.0237	2.595	0.6976	0.0231	0.7209	0	3,968.32	3,968.32	0.1733	0	3,993.66
	26.6661	0.39	1.8317	4.30E-03	0.2619	0.0117	0.2736	0.0696	0.0116	0.0812	0	377.2396	377.2396	0.01	0	377.4907
	88.7989	0.17	1.1736	5.45E-03	0.8382	2.79E-03	0.841	0.2227	2.64E-03	0.2254	0	492.4204	492.4204	8.16E-03	0	492.6243
	88.7989	16.3	13.8377	0.086	5.7382	0.1477	5.7914	1.5574	0.1359	1.6084	0	8,192.88	8,192.88	0.4078	0	8,203.08

Hotel

ANNUAL - 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					
2018	3.9141	36.7995	27.2637	0.0901	6.2441	0.9631	7.2073	2.1055	0.8971	3.0026	0	8.422.50	8.422.50	0.8435	0	8.443.59
2019	4.5046	41.1096	33.0061	0.134	7.7683	0.6177	8.386	2.1237	0.5813	2.705	0	12,577.08	12,577.08	0.9049	0	12,599.71
2020	3.8354	34.9707	28.793	0.1288	7.0707	0.3874	7.4581	1.9186	0.3659	2.2845	0	12,116.57	12,116.57	0.7744	0	12,135.93
2021	3.4593	31.4804	26.7374	0.1259	7.0514	0.2691	7.3204	1.9133	0.2532	2.1665	0	11,858.86	11,858.86	0.7387	0	11,877.32
2022	3.2436	29.5199	25.1314	0.1232	7.0514	0.2331	7.2845	1.9133	0.2193	2.1326	0	11,624.13	11,624.13	0.711	0	11,641.90
2023	2.9349	23.7684	23.3893	0.1195	7.0513	0.1876	7.2389	1.9133	0.1761	2.0894	0	11,283.88	11,283.88	0.6576	0	11,300.31
2024	2.802	23.2687	22.2964	0.1174	7.0707	0.171	7.2416	1.9186	0.1605	2.079	0	11,102.84	11,102.84	0.6442	0	11,118.95
2025	2.6703	22.6451	21.2112	0.1147	7.0513	0.1536	7.2049	1.9133	0.1441	2.0574	0	10,865.52	10,865.52	0.6292	0	10,881.25
2026	99.0419	21.4273	21.6444	0.1102	7.0424	0.1917	7.2341	1.9074	0.1793	2.0867	0	10,406.98	10,406.98	0.6426	0	10,423.04
2027	4.1241	0.0488	0.1293	3.20E-04	0.0269	2.28E-03	0.0291	7.12E-03	2.11E-03	9.24E-03	0	28.7838	28.7838	3.39E-03	0	28.8886
Maximum	99.0419	41.1098	33.0061	0.134	7.7683	0.9631	8.386	2.1237	0.8971	3.0026	0	12,577.08	12,577.08	0.9049	0	12,599.71

ANNUAL - OPERATIONS

	ROG	NOx	CO	SO2	Fugitive 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	43.9189	5.00E-04	0.0547	0	1.90E-04	1.90E-04	1.90E-04	1.90E-04	1.90E-04	1.90E-04	0	0.1067	0.1067	2.80E-04	0	0.1137
Energy	2.7292	24.8111	20.8413	0.1489	1.8856	1.8856	1.8856	1.8856	1.8856	1.8856	0	63,708.53	63,708.53	1.9948	0.8008	63,997.04
Mobile	8.7036	35.7149	90.625	0.3312	33.5769	0.257	33.8339	8.9887	0.2387	9.2275	0	30,743.58	30,743.58	1.5757	0	30,782.97
Waste					0	0	0	0	0	0	663.7135	0	663.7135	39.2243	0	1,644.32
Water					0	0	0	0	0	0	48.9609	705.7639	753.8249	4.9647	0.1224	914.4283
Total	55.35	60.53	111.52	0.48	33.58	2.14	35.72	8.99	2.12	11.11	711.77	95157.98	95869.75	47.76	0.92	97338.87

DAILY - CONSTRUCTION - SUMMER

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	39.1076	367.9819	273.5172	0.8948	66.7129	10.3319	77.0448	24.3476	9.6108	33.9584	0	92.093.98	92.093.98	9.3384	0	92,327.44
2019	28.0192	261.8201	209.333	0.8012	48.3755	5.1126	53.4881	14.345	4.7749	19.1199	0	82,662.27	82,662.27	6.8391	0	82,833.25
2020	20.7947	188.42	160.9044	0.724	39.5378	2.1109	41.6487	10.7049	1.9937	12.6985	0	75,029.01	75,029.01	4.6217	0	75,144.55
2021	18.795	170.3162	150.0499	0.7084	39.5378	1.4692	41.007	10.7049	1.3823	12.0872	0	73,616.41	73,616.41	4.4208	0	73,726.93
2022	17.6114	159.8255	141.1135	0.6942	39.5378	1.2726	40.8104	10.7049	1.1974	11.9023	0	72,140.02	72,140.02	4.2556	0	72,246.41
2023	15.93	128.8538	131.6766	0.6727	39.5377	1.0248	40.5625	10.7049	0.9622	11.667	0	70,011.69	70,011.69	3.9435	0	70,110.28
2024	15.1543	125.849	125.1754	0.6589	39.5377	0.9316	40.4693	10.7049	0.8743	11.5792	0	68,672.30	68,672.30	3.8525	0	68,768.62
2025	14.4713	122.854	119.3467	0.6454	39.5377	0.8394	40.3771	10.7049	0.7875	11.4924	0	67,360.68	67,360.68	3.7734	0	67,455.01
2026	930.4957	131.7878	144.9617	0.7082	45.6412	1.338	46.9793	12.3238	1.2503	13.5741	0	73,670.65	73,670.65	4.5517	0	73,784.45
2027	916.442	10.7485	29.5852	0.074	6.1036	0.5058	6.6094	1.819	0.4693	2.0885	0	7,299.87	7,299.87	0.8365	0	7,320.78
Maximum	930.4957	367.9819	273.5172	0.8948	66.7129	10.3319	77.0448	24.3476	9.6108	33.9584	0	92,093.98	92,093.98	9.3384	0	92,327.44

DAILY - OPERATIONS - SUMMER

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	240.6798	5.51E-03	0.8082	5.00E-05	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	1.307	1.307	3.40E-03			1.392
Energy	14.9546	135.9512	114.199	0.8157	10.3323	10.3323	10.3323	10.3323	10.3323	10.3323	163,141.45	163,141.45	3.1269	2.9909	164,110.92	202,662.23
Mobile	53.2105	200.4712	527.007	1.9794	196.9629	1.4709	198.4338	52.6252	1.3661	53.9913			202,413.59	9.9455		202,662.23
Total	308.8449	336.4279	641.814	2.7952	196.9629	11.8053	208.7682	52.6252	11.7006	64.3257	365,556.35	365,556.35	13.0758	2.9909		366,774.54

DAILY - CONSTRUCTION - WINTER

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	41.4557	369.6946	272.2884	0.8646	66.7129	10.3563	77.0692	24.3476	9.6341	33.9817	0	89,000.92	89,000.92	9.4987	0	89,238.39
2019	30.184	263.1975	208.0465	0.7718	48.3755	5.1343	53.5098	14.345	4.7956	19.1406	0	79,642.87	79,642.87	6.994	0	79,817.72
2020	22.8175	189.3963	159.4816	0.6952	39.5378	2.1258	41.6636	10.7049	2.0079	12.7128	0	72,072.37	72,072.37	4.7659	0	72,191.52
2021	20.7158	170.9335	148.4384	0.6814	39.5378	1.4815	41.0192	10.7049	1.394	12.0989	0	70,728.91	70,728.91	4.5579	0	70,842.86
2022	19.4573	160.2749	138.4869	0.6669	39.5378	1.2837	40.8215	10.7049	1.208	11.9128	0	69,323.28	69,323.28	4.3659	0	69,432.62
2023	17.6798	129.2043	129.4578	0.6465	39.5377	1.0313	40.5696	10.7049	0.9689	11.6736	0	67,300.25	67,300.25	4.0456	0	67,401.40
2024	16.8545	126.1359	123.0724	0.6335	39.5377	0.9379	40.4756	10.7049	0.8803	11.5852	0	66,041.86	66,041.86	3.9514	0	66,140.64
2025	16.1259	123.0848	117.4181	0.6208	39.5377	0.8448	40.3825	10.7049	0.7927	11.4976	0	64,809.19	64,809.19	3.8688	0	64,905.91
2026	932.4124	132.1052	142.236	0.6822	45.6412	1.3427	46.984	12.3238	1.2548	13.5786	0	70,884.15	70,884.15	4.6364	0	71,000.06
2027	916.7333	10.872	28.6813	0.0711	6.1036	0.5058	6.6094	1.819	0.4693	2.0885	0	7,005.75	7,005.75	0.8299	0	7,026.50
Maximum	932.4124	369.6946	272.2884	0.8646	66.7129	10.3563	77.0692	24.3476	9.6341	33.9817	0	89,000.92	89,000.92	9.4987	0	89,238.39

DAILY - OPERATIONS - WINTER

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	240.6798	5.51E-03	0.8082	5.00E-05	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	1.307	1.307	3.40E-03			1.392
Energy	14.9546	135.9512	114.199	0.8157	10.3323	10.3323	10.3323	10.3323	10.3323	10.3323	163,141.45	163,141.45	3.1269	2.9909	164,110.92	
Mobile	51.237	203.7045	527.268	1.8775	196.9629	1.4782	198.4411	52.6252	1.3731	53.9963						192,303.28
Total	306.8714	339.6612	642.075	2.6932	196.9629	11.8127	208.7756	52.6252	11.7075	64.3328	355,193.80	355,193.80	13.2197	2.9909	356,415.59	

Office 2018 Start

ANNUAL - CONSTRUCTION - 2018

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
M/yr																
2018	0.3313	3.5298	1.9915	3.00E-03	0.641	0.1735	0.8144	0.285	0.1603	0.4453	0	318.578	318.578	0.092	0	320.8782
2019	0.8366	8.8128	0.4748	0.6554	1.156	0.2413	1.5963	0.3482	0.2268	0.5749	0	1.86838	1.86838	0.2661	0	1.965431
2020	0.8159	8.3436	0.2424	0.6244	1.0801	0.179	1.2592	0.2971	0.1687	0.4658	0	2.28436	2.28436	0.1936	0	2.28638
2021	0.7583	7.9131	0.2938	0.6531	1.064	0.1411	1.2251	0.2561	0.1307	0.3867	0	2.24132	2.24132	0.1663	0	2.243456
2022	0.6951	7.4851	0.2535	0.6531	1.0818	0.1168	1.2013	0.2451	0.1155	0.3604	0	2.18833	2.18833	0.1467	0	2.19143
2023	0.6366	6.9161	0.2136	0.6531	1.0988	0.0921	1.1909	0.2341	0.0952	0.3293	0	2.13534	2.13534	0.1271	0	2.13843
2024	0.5781	6.3471	0.1737	0.6531	1.1158	0.0674	1.1832	0.2231	0.0705	0.2936	0	2.08235	2.08235	0.1075	0	2.08545
Maximum	17.9819	8.6128	6.2424	0.6244	1.156	0.2413	1.5963	0.3482	0.2268	0.5748	0	2.28436	2.28436	0.2091	0	2.28938

ANNUAL - OPERATION - 2018

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
M/yr																
Area	11.5332	1.50E-04	0.0009	0	7.00E-06	7.00E-06	7.00E-06	7.00E-06	7.00E-06	7.00E-06	0	0.0407	0.0407	1.10E-04	0	0.0433
Exhaust	0.2476	2.2638	1.868	0.0138	0.1713	0.1713	0.1713	0.1713	0.1713	0.1713	0	12.45436	12.45436	0.4466	0.1263	12.50433
Mobile	3.8838	18.0181	43.5881	0.1884	17.1774	0.1269	17.3043	4.5888	0.1199	4.7087	0	15.43372	15.43372	0.7683	0	15.482383
Waste	0	0	0	0	0	0	0	0	0	0	0	429.8657	429.8657	25.4037	0	1.06456
Water	0	0	0	0	0	0	0	0	0	0	0	128.3628	128.3628	0.3332	0	0.16276
Total	15.6248	18.2689	45.5919	0.1799	17.1774	8.2983	17.4787	4.5888	0.2993	4.8877	588.2483	30.5118789	31.68932	38.9125	0.4618	32.2048684

ANNUAL - CONSTRUCTION - 2022

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
M/yr																
2022	0.2382	2.3805	1.7549	3.62E-03	0.6441	0.1102	0.7542	0.2887	0.1018	0.3884	0	308.1739	308.1739	0.0923	0	311.4821
2023	0.5837	6.2431	4.9793	0.618	1.1549	0.1327	1.2976	0.3478	0.1444	0.4921	0	1.71036	1.71036	0.1661	0	1.776222
2024	0.5805	6.1648	6.1542	0.6226	1.0901	0.0898	1.1799	0.2971	0.0844	0.3816	0	2.12486	2.12486	0.1694	0	2.12908
2025	0.5489	0.5588	4.5914	0.6222	1.086	0.0761	1.1621	0.2587	0.0754	0.3341	0	2.03843	2.03843	0.1684	0	2.040789
2026	0.5083	0.5357	4.2858	0.6216	1.086	0.0759	1.1628	0.2387	0.0751	0.3138	0	2.05748	2.05748	0.1688	0	2.06175
2027	0.4611	0.5689	3.1809	0.6121	0.5825	0.0657	0.6482	0.1613	0.6853	0.8467	0	1.54976	1.54976	0.1086	0	1.65242
2028	0.48974	0.6108	0.6072	0.60634	0.0136	0.0141	0.0277	0.0053	0.00534	0.0106	0	12.0053	12.0053	0.006254	0	12.0142
Maximum	18.8115	8.6148	6.1542	0.6226	1.1549	0.1327	1.2776	0.3478	0.1444	0.4919	0	2.12486	2.12486	0.1683	0	2.12938

ANNUAL - OPERATION - 2022

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
M/yr																
Area	11.5332	1.50E-04	0.0009	0	7.00E-06	7.00E-06	7.00E-06	7.00E-06	7.00E-06	7.00E-06	0	0.0407	0.0407	1.10E-04	0	0.0433
Exhaust	0.2476	2.2638	1.868	0.0138	0.1713	0.1713	0.1713	0.1713	0.1713	0.1713	0	12.45436	12.45436	0.4466	0.1263	12.50433
Mobile	3.8838	18.0181	43.5881	0.1884	17.1774	0.1269	17.3043	4.5888	0.1199	4.7087	0	15.43372	15.43372	0.7683	0	15.482383
Waste	0	0	0	0	0	0	0	0	0	0	0	429.8657	429.8657	25.4037	0	1.06456
Water	0	0	0	0	0	0	0	0	0	0	0	128.3628	128.3628	0.3332	0	0.16276
Total	15.6248	18.2689	45.5919	0.1799	17.1774	8.2983	17.4787	4.5888	0.2993	4.8877	588.2483	30.5118789	31.68932	38.9125	0.4618	32.2048684

DAILY - CONSTRUCTION - SUMMER

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
lb/day																
2018	8.1753	88.5831	38.774	0.0838	18.2141	2.6349	20.7921	9.9699	2.4241	12.3416	0	6.42387	6.42387	1.9501	0	6.47283
2019	6.9404	68.3236	91.6596	0.1898	6.8376	2.3838	11.2218	3.6401	2.1651	5.8052	0	19.87676	19.87676	1.9462	0	20.01852
2020	6.1889	63.0472	48.2276	0.1907	8.5136	1.9849	9.8785	2.3153	1.2899	3.6052	0	19.86438	19.86438	1.8154	0	19.70477
2021	5.5551	57.0247	48.5984	0.1818	8.5136	1.9849	9.8785	2.3153	1.1619	3.4772	0	19.56857	19.56857	1.8521	0	19.38711
2022	5.1366	53.0443	43.5707	0.1843	8.5136	0.9161	9.4297	2.3153	0.8641	3.1794	0	19.06839	19.06839	1.782	0	18.89733
2023	5.043	44.0474	41.6841	0.1754	8.5136	0.7746	9.2883	2.3153	0.7568	3.0421	0	18.54673	18.54673	1.4562	0	18.58511
2024	5.043	44.0474	41.6841	0.1754	8.5136	0.7746	9.2883	2.3153	0.7568	3.0421	0	18.54673	18.54673	1.4562	0	18.58511
Maximum	704.2367	68.3238	91.6596	0.1936	18.2141	2.6349	20.7921	9.9699	2.4241	12.3416	0	19.97676	19.97676	1.9501	0	20.01852

DAILY - OPERATION - SUMMER

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Area	83.2085	2.10E-03	0.2319	2.00E-06	8.20E-04	8.20E-04	8.20E-04	8.20E-04	8.20E-04	8.20E-04	0.4883	0.4883	1.30E-03	0	0.5307	
Energy	1.3363	12.3483	10.3728	0.0741	0.5866	0.5866	0.5866	0.5866	0.5866	0.5866	14.81733	14.81733	0.284	0.2717	14.90596	
Mobile	28.6598	118.0838	323.376	0.1584	127.2139	0.9174	128.1312	33.9884	0.6522	34.6406	128.3628	128.3628	0.7397	0	128.44586	
Total	94.1944	125.4342	333.981	1.3288	127.2139	1.8667	129.0706	33.9884	1.7915	35.7809	143.1116	143.1116	6.415	0.2717	143.35238	

DAILY - CONSTRUCTION - WINTER

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
lb/day																
2018	5.1883	58.5906	35.7388	0.0637	18.2141	2.6349	20.7921	9.9699	2.4241	12.3416	0	6.41289	6.41289	1.9488	0	6.46184
2019	7.3861	69.657	51.7171	0.1671	6.8376	2.3838	11.2218	3.6401	2.1651	5.8052	0	19.36734	19.36734	1.9479	0	19.36126
2020	6.8094	63.2346	48.2221	0.1843	8.5136	1.9884	9.8834	2.3153	1.2896	3.605	0	19.00548	19.00548	1.6983	0	19.04886
2021	6.3483	57.1523	43.5367	0.1818	8.5136	1.9884	9.8834	2.3153	1.0831	3.3984	0	18.71338	18.71338	1.6099	0	18.55346
2022	5.924	53.0443	43.5353	0.1761	8.5136	0.9161	9.4297	2.3153	0.8641	3.1794	0	18.26839	18.26839	1.5606	0	18.42758
2023	5.043	44.0474	41.6841	0.1754	8.5136	0.7746	9.2883	2.3153	0.7568	3.0421	0	17.84238	17.84238	1.4686	0	17.97832
2024	5.043	44.0474	41.6841	0.1754	8.5136	0.7746	9.2883	2.3153	0.7568	3.0421	0	17.84238	17.84238	1.4686	0	17.97832
Maximum	704.3	69.657	51.7171	0.1671	18.2141	2.6349	20.7921	9.9699	2.4241	12.3416	0	19.30734	19.30734	1.9488	0	19.35126

Residential 2018 Start

ANNUAL - CONSTRUCTION - 2018																
	ROG	NOx	CO	SO2	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	ton/day										MT/yr					
2018	0.5114	3.7961	3.5598	6.99E-03	0.6828	0.1532	0.836	0.2308	0.1427	0.3735	0	824.3182	824.3182	0.0999	0	826.8135
2019	0.5665	4.9306	4.7242	0.0206	0.7325	0.1868	0.9363	0.3848	0.1643	0.5352	0	1,065.66	1,065.66	0.1068	0	1,066.84
2020	0.6361	6.5069	6.6276	0.0267	0.8168	0.2234	1.0366	0.4363	0.2066	0.6459	0	1,110.61	1,110.61	0.1228	0	1,111.6603
Maximum	24.8701	8.9308	7.2742	0.0216	1.323	0.1959	1.5199	0.3549	0.1943	0.5392	0	1,985.68	1,985.68	0.1998	0	1,989.59

ANNUAL - OPERATION - 2018																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	t/day										MT/yr					
Area	107.0382	2.0501	132.7389	0.2201	17.049	17.049	17.049	17.049	17.049	17.049	1,615.55	696.5058	2,312.05	1.5091	0.1271	2,387.65
Energy	0.0627	0.5364	0.2278	3.42E-03	0.0433	0.0433	0.0433	0.0433	0.8487	0	2.79577	2.79677	0.0968	0.0296	0.2115	
Mobile	1.3924	5.8453	16.7621	0.0659	6.8826	0.0497	6.9324	1.8426	0.0462	1.8887	0	6,109.52	6,109.52	0.257	0	6,116.95
Waste					0	0	0	0	146.0398	146.0398	8.6307	0	361.8075			
Water					0	0	0	0	32.3285	32.3285	666.879	699.2075	3.3473	0.094	807.9086	
Total	108.4933	8.4308	148.7268	0.2894	6.8826	17.1419	24.0247	1.8426	17.1384	18.9810	1,793.914	10,272.873	12,066.907	13.8836	0.2406	12,485.362

ANNUAL - CONSTRUCTION - 2026																
	ROG	NOx	CO	SO2	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	t/day										MT/yr					
2025	0.3015	1.9876	2.257	6.03E-03	0.6929	0.0602	0.7532	0.2335	0.056	0.2895	0	751.3128	751.3128	0.0992	0	753.5432
2026	0.4216	3.1491	3.1699	0.0164	1.1324	0.0762	1.4012	0.3548	0.0734	0.4283	0	1,689.36	1,689.36	0.1268	0	1,693.03
2027	0.4519	3.5976	3.6074	0.0204	1.2666	0.1135	0.1511	0.1368	0.1039	0.2404	0	1,689.36	1,689.36	0.1268	0	1,693.03
Maximum	24.5316	3.4571	5.1697	0.0184	1.323	0.0762	1.4012	0.3548	0.0734	0.4283	0	1,689.36	1,689.36	0.1268	0	1,693.03

ANNUAL - OPERATION - 2026																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	t/day										MT/yr					
Area	107.0382	2.0501	132.7389	0.2201	17.049	17.049	17.049	17.049	17.049	17.049	1,615.55	696.5058	2,312.05	1.5091	0.1271	2,387.65
Energy	0.0627	0.5364	0.2278	3.42E-03	0.0433	0.0433	0.0433	0.0433	0	2.79577	2.79577	0.0996	0.0295	2,811.05		
Mobile	1.3924	5.8453	16.7621	0.0659	6.8826	0.0497	6.9324	1.8426	0.0462	1.8887	0	6,109.52	6,109.52	0.257	0	6,116.95
Waste					0	0	0	0	146.0398	146.0398	8.6307	0	361.8075			
Water					0	0	0	0	32.3285	32.3285	666.879	699.2075	3.3473	0.094	807.9086	
Total	108.4933	8.4308	148.7268	0.2894	6.8826	17.1419	24.0247	1.8426	17.1384	18.9810	1,793.914	10,272.873	12,066.907	13.8836	0.2406	12,485.362

DAILY - CONSTRUCTION - SUMMER																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	t/day										t/day					
2018	8.3336	59.5831	61.9529	0.1749	18.2141	2.6349	20.7921	9.9699	2.4241	12.3416	0	17,793.45	17,793.45	1.9501	0	17,738.02
2019	7.9561	42.6762	57.3482	0.1714	10.5854	1.4966	11.8662	2.3766	1.2153	4.1699	0	17,333.51	17,333.51	1.3259	0	17,366.85
2020	2.447.65	40.8508	53.5833	0.1698	10.5853	1.2741	11.6544	2.3766	1.1663	3.9772	0	16,962.96	16,962.96	1.2685	0	16,964.97
Maximum	2.447.65	59.5831	61.9529	0.1749	18.2141	2.6349	20.7921	9.9699	2.4241	12.3416	0	17,793.45	17,793.45	1.9501	0	17,738.02

DAILY - OPERATION - SUMMER																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	t/day										t/day					
Area	2,444.28	48.2279	3,083.47	6.3597			414.9731 414.9731			414.9731 414.9731	43,434.99	18,448.34	61,883.32	40.3058	3.4165	63,909.08
Energy	0.3433	2.9336	1.2483	0.0187	0.2372	0.2372	0.2372	0.2372	0.2372	0.2372	3,744.90	3,744.90	0.0718	0.0887	3,767.15	
Mobile	6.5408	32.9397	100.2521	0.3979	40.7952	0.2876	41.0828	10.8998	0.2672	11.167	40,645.94	40,645.94	1.9051	0	40,693.59	
Total	2,453.17	84.1067	3,184.97	6.7763	40.7952	415.4976	456.2931	10.8998	415.4776	426.3773	43,434.99	62,839.18	106,274.16	42.2937	3.4852	106,349.83

DAILY - CONSTRUCTION - WINTER																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	t/day										t/day					
2018	8.9912	59.5906	60.591	0.1676	18.2141	2.6349	20.7921	9.9699	2.4241	12.3416	0	16,960.20	16,960.20	1.9498	0	16,964.97
2019	8.1632	52.2667	58.0141	0.1642	10.3840	1.8024	11.8828	2.3769	1.4137	4.1626	0	16,607.88	16,607.88	1.5342	0	16,641.34
2020	2.447.76	41.1252	53.5646	0.1606	10.5853	1.2766	11.8662	2.3766	1.1966	3.9766	0	16,342.13	16,342.13	1.376	0	16,377.23
Maximum	2.447.76	59.5906	60.591	0.1676	18.2141	2.6349	20.7921	9.9699	2.4241	12.3416	0	16,960.20	16,960.20	1.9498	0	16,964.97

DAILY - OPERATION - WINTER																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio CO2	NBio CO2	Total CO2	CH4	N2O	CO2e
Category	t/day										t/day					
Area	2,444.28	48,2279	3,083.47	6.3597	414.9731	414.9731	414.9731	414.9731	414.9731	414.9731	43,434.99	18,448.34	61,883.32	40.3058	3.4165	63,909.08
Energy	0.3433	2.9336	1.2483	0.0187	0.2372	0.2372	0.2372	0.2372	0.2372	0.2372	3,744.90	3,744.90	0.0718	0.0887	3,767.15	
Mobile	6.5408	33.7381	97.9069	0.3776	40.7952	0.2886	41.0838	10.8998	0.2682	11.168	40,645.94	40,645.94	1.9131	0	40,694.20	
Total	2,452.88	84.8976	3,182.83	6.7662	40.7952	415.4969	456.2941	10.8998	415.4784	426.3762	43,434.99	66,809.61	104,244.59	42.2907	3.4852	106,340.43

Restaurants

ANNUAL - CONSTRUCTION - 2018																
	ROG	NOx	CO	SO2	Fugitive lb/day	Exhaust lb/day	PM10 lb/day	Fugitive lb/day	Exhaust lb/day	PM2.5 lb/day	Bio-CO2 lb/day	Nbio-CO2 lb/day	Total CO2 lb/day	CH4 lb/day	N2O lb/day	CO2e lb/day
Year	M/yr															
2018	0.2419	2.2087	1.5618	2.91E-03	0.1122	0.1222	0.2344	0.0494	0.1148	0.1638	0	283.0399	283.0399	0.0543	0	284.3968
2019	1.8621	1.2496	1.3459	2.34E-03	0.0509	0.0453	0.0106	0.0764	0.0489	0	0	212.869	212.869	0.0403	0	213.9739
Maximum	1.8621	2.2087	1.5618	2.91E-03	0.1122	0.2344	0.0494	0.1148	0.1638	0	283.0399	283.0399	0.0543	0	284.3968	

ANNUAL - OPERATION - 2018																
Category	ROG	NOx	CO	SO2	Fugitive lb/day	Exhaust lb/day	PM10	Fugitive lb/day	Exhaust lb/day	PM2.5	Bio-CO2	Nbio-CO2	Total CO2	CH4	N2O	CO2e
											M/yr					
Area	0.7496	1.006E-05	1.308E-03	0	0	0	0	0	2.944E-03	2.848E-03	1.006E-05	0	2.858E-03	0	0	2.858E-03
Energy	0.1362	1.2651	1.0627	7.996E-03	0.0962	0.0962	0.0962	0.0962	0.0962	0.0962	0	3.249E-06	3.249E-06	0.1017	0.0408	3.263.77
Waste	0.0168	0.2699	0.02464	0.06884	0.0034	0.0913	0.0034	0.0034	0.0034	0.0034	0	0.003333	0.003333	0.0178	0	0.003333
Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2.9938	9.7928	19.5385	0.0681	0.0221	0.1453	0.9673	1.5588	0.1417	1.7003	41.6659	9,074.160	9,115.826	3.5066	0.0771	9,226.439

ANNUAL - CONSTRUCTION - 2026																
	ROG	NOx	CO	SO2	Fugitive lb/day	Exhaust lb/day	PM10 lb/day	Fugitive lb/day	Exhaust lb/day	PM2.5 lb/day	Bio-CO2 lb/day	Nbio-CO2 lb/day	Total CO2 lb/day	CH4 lb/day	N2O lb/day	CO2e lb/day
Year	Mg/yr															
2026	0.1282	1.1689	1.3352	2.82E-03	0.1125	0.0455	0.1579	0.0494	0.0425	0.062	0	248.9197	248.9197	0.0509	0	250.1883
2027	1.8121	0.6717	1.1096	2.26E-03	0.0509	0.0332	0.0792	0.0106	0.0312	0.0477	0	166.3917	166.3917	0.0399	0	168.3154
Maximum	1.8121	1.1689	1.3352	2.82E-03	0.1125	0.0455	0.1579	0.0494	0.0425	0.062	0	248.9197	248.9197	0.0509	0	250.1883

ANNUAL - OPERATION - 2026																
Category	ROG	NOx	CO	SO2	Fugitive lb/day	Exhaust lb/day	PM10	Fugitive lb/day	Exhaust lb/day	PM2.5	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
													Mt/yr			
Area	0.7496	1.006-05	1.308-03	0	0	0	0	0	2.944-03	2.848-03	1.006-05	0	2.858-03	0	0	2.858-03
Energy	0.1362	1.2651	1.0627	7.996-03	0.0962	0.0962	0.0962	0.0962	0.0962	0.0962	0	3.249-06	3.249-06	0.1017	0.0408	3.263.77
Waste	0.0168	0.2699	0.02464	0.06884	0.0034	0.0913	0.0034	0.0034	0.0034	0.0034	0	0.003333	0.003333	0.0178	0	0.003333
Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2.9938	9.7928	19.5385	0.0681	0.0221	0.1453	0.9673	1.5588	0.1417	1.7003	41.6659	9,074.160	9,115.826	3.5066	0.0771	9,226.439

DAILY - CONSTRUCTION - SUMMER																
Year	ROG	NOx	CO	SO2	Fugitive lb/day	Exhaust lb/day	PM10 lb/day	Fugitive lb/day	Exhaust lb/day	PM2.5 lb/day	Bio-CO2 lb/day	Nbio-CO2 lb/day	Total CO2 lb/day	CH4 lb/day	N2O lb/day	CO2e lb/day
2018	4.8393	48.2839	23.9829	0.0402	18.2141	2.976	20.7921	9.9699	2.3717	12.3416	0	4.00635	4.00635	1.1984	0	4.033.13
2019	180.8636	34.2544	16.8604	0.0397	0.0718	1.5142	1.686	0.1619	1.2589	1.4177	0	3.84134	3.84134	0.7634	0	3.888.13
Maximum	180.8636	48.2839	23.9829	0.0402	18.2141	2.976	20.7921	9.9699	2.3717	12.3416	0	4.00635	4.00635	1.1984	0	4.033.13

DAILY - OPERATION - SUMMER																
Category	ROG	NOx	CO	SO2	Fugitive lb/day	Exhaust lb/day	PM10 lb/day	Fugitive lb/day	Exhaust lb/day	PM2.5 lb/day	Bio-CO2 lb/day	Nbio-CO2 lb/day	Total CO2 lb/day	CH4 lb/day	N2O lb/day	CO2e lb/day
Area	4.1083	0.0000	0.9161	0.0000	0	5.006E-05	8.006E-05	8.006E-05	8.006E-05	0.0324	0.0324	8.006E-05	0.0324	0	0	0.0348
Energy	0.7625	0.8321	5.823	0.0416	0.5268	0.5268	0.5268	0.5268	0.5268	0.5268	0	8318.53	8318.53	0.1694	0.1626	8367.96
Waste	0.03343	0.00343	0.00343	0.00343	0.00343	0.00343	0.00343	0.00343	0.00343	0.00343	0	0.00343	0.00343	0.00343	0	0.00343
Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	18.1967	65.9533	113.6613	0.4132	35.1106	8.8106	35.9267	9.361	8.7948	16.1708	0	46375.27	46375.27	2.1708	8.1626	46473.08

DAILY - CONSTRUCTION - WINTER																
Year	ROG	NOx	CO	SO2	Fugitive lb/day	Exhaust lb/day	PM10 lb/day	Fugitive lb/day	Exhaust lb/day	PM2.5 lb/day	Bio-CO2 lb/day	Nbio-CO2 lb/day	Total CO2 lb/day	CH4 lb/day	N2O lb/day	CO2e lb/day
2018	4.6489	48.2607	23.9808	0.0401	18.2141	2.976	20.7921	9.9699	2.3717	12.3416	0	3.998.12	3.998.12	1.1981	0	4.024.89
2019	180.8607	34.2477	16.8584	0.0383	0.0718	1.5146	1.6864	0.1619	1.2582	1.4161	0	3.796.47	3.796.47	0.7584	0	3.868.12
Maximum	180.8607	48.2607	23.9808	0.0401	18.2141	2.976	20.7921	9.9699	2.3717	12.3416	0	3.998.12	3.998.12	1.1981	0	4.024.89

DAILY - OPERATION - WINTER																
Category	ROG	NOx	CO	SO2	Fugitive lb/day	Exhaust lb/day	PM10 lb/day	Fugitive lb/day	Exhaust lb/day	PM2.5 lb/day	Bio-CO2	Nbio-CO2	Total CO2	CH4	N2O	CO2e
Area	4.1083	1.406e-04	0.9161	0	0	5.006e-05	8.006e-05	8.006e-05	8.006e-05	0.0324	0.0324	8.006e-05	0.0324	0	0	0.0348
Energy	0.7625	0.8321	5.823	0.0416	0.5268	0.5268	0.5268	0.5268	0.5268	0.5268	0	8.318.53	8.318.53	0.1694	0.1626	8.367.96
Waste	0.03343	0.00343	0.00343	0.00343	0.00343	0.00343	0.00343	0.00343	0.00343	0.00343	0	0.00343	0.00343	0.00343	0	0.00343
Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	17.6528	56.3321	117.3214	0.3934	35.1106	8.8106	35.9262	9.361	8.7948	16.1779	0	44.361.36	44.361.36	2.2314	8.1162	44.452.69

Warehouse Facilities

ANNUAL CONSTRUCTION - 2018																
	ROG	NOx	CO	SO2	Fugitive HAPs	Exhaust HAPs	PM10	Fugitive HAPs	Exhaust HAPs	PM2.5	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	t/yr										Mtyr					
2018	0.255	2.3791	1.628	3.19E-03	0.0099	0.1258	0.3358	0.008	0.1175	0.2155	0	288.731	289.731	0.0585	0	291.1922
2019	2.8134	1.8495	1.5419	3.19E-03	0.0977	0.0952	0.1629	0.0184	0.0894	0.1078	0	286.4835	286.4835	0.0523	0	289.7405
Maximum	18.1545	4.2573	3.2811	9.34E-03	0.3639	0.1583	0.5112	0.1427	0.1491	0.28	0	563.5588	563.5588	0.104	0	566.4551

ANNUAL CONSTRUCTION - 2026																
	ROG	NOx	CO	SO2	Fugitive HAPs	Exhaust HAPs	PM10	Fugitive HAPs	Exhaust HAPs	PM2.5	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	t/yr										Mtyr					
2026	0.1354	1.2458	1.3741	3.04E-03	0.2089	0.0473	0.2571	0.058	0.0441	0.1421	0	270.1383	270.1383	0.0547	0	271.5048
2027	2.7278	1.9834	1.3659	2.99E-03	0.0677	0.0392	0.1099	0.0184	0.0398	0.0552	0	287.036	287.036	0.0495	0	288.1987
Maximum	9.9646	2.4518	2.6105	6.35E-03	0.367	0.0618	0.4236	0.1435	0.0581	0.1982	0	778.6143	778.6143	0.0889	0	772.6618

DAILY CONSTRUCTION - SUMMER																
	ROG	NOx	CO	SO2	Fugitive HAPs	Exhaust HAPs	PM10	Fugitive HAPs	Exhaust HAPs	PM2.5	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	t/day										t/day					
2018	4.6303	48.2538	23.0625	0.0458	18.2141	2.578	20.7921	9.8699	2.3717	12.3416	0	4,576.88	4,576.88	1.1884	0	4,598.57
2019	261.0598	25.9587	21.2078	0.0454	1.0389	1.3273	2.3562	0.2791	1.2484	1.5275	0	4,513.53	4,513.53	0.7423	0	4,532.09
Maximum	261.0598	48.2538	23.0625	0.0458	18.2141	2.578	20.7921	9.8699	2.3717	12.3416	0	4,576.88	4,576.88	1.1884	0	4,598.57

DAILY CONSTRUCTION - WINTER																
	ROG	NOx	CO	SO2	Fugitive HAPs	Exhaust HAPs	PM10	Fugitive HAPs	Exhaust HAPs	PM2.5	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	t/day															
2018	4.6443	48.2607	23.0608	0.045	18.2141	2.578	20.7921	9.8699	2.3717	12.3416	0	4,496.73	4,496.73	1.1881	0	4,515.93
2019	261.0698	25.9584	21.2047	0.0447	1.0389	1.3273	2.3558	0.2791	1.2489	1.528	0	4,435.10	4,435.10	0.7463	0	4,453.19
Maximum	261.0698	48.2607	23.0608	0.045	18.2141	2.578	20.7921	9.8699	2.3717	12.3416	0	4,496.73	4,496.73	1.1881	0	4,515.93

Additional Dev.

ANNUAL CONSTRUCTION - 2018

	ROG	NOx	CO	SO2	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	t/day										M/yr					
2018	0.3454	0.4565	2.3039	0.54E-03	0.3639	0.1472	0.5112	0.1427	0.1373	0.28	0	510.7839	510.7839	0.0852	0	512.9133
2019	0.11546	0.2597	0.12611	0.56E-03	0.3251	0.1050	0.4300	0.0550	0.1491	0.2041	0	863.8568	863.8568	0.104	0	866.0561
Maximum	0.1545	0.2573	0.2811	0.56E-03	0.3639	0.1555	0.5112	0.1427	0.1491	0.29	0	863.8568	863.8568	0.104	0	866.4581

ANNUAL OPERATION - 2018

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	t/day										M/yr					
Area	4.2448	7.00E-05	17.88E-03	0			3.00E-05	3.00E-05		3.00E-05	3.00E-05	0	0.015	0.015	4.80E-05	0.016
Exhaust	0.1461	0.15268	0.11159	7.59E-03			0.101	0.101		0.101	0.101		0.76781	0.2617	0.0605	0.767148
Mobile	1.4665	0.1108	16.8667	0.0649			0.0494	0.7743	1.8003	0.0499	1.8462		0.02147	0.02147	0.2972	0.028160
Waste					0	0		0	0	158.199	0	158.199	0.3493	0		391.9313
Water										0	0	47.2521	168.2462	1.01210	0.1226	1,191.35
Total	5.8572	7.4392	17.9923	0.0729	6.7249	6.1904	6.8752	1.8902	6.1469	1.9471	205.4511	12,754.53	12,959.99	14.7403	0.1651	13,363.64

ANNUAL CONSTRUCTION - 2026

	ROG	NOx	CO	SO2	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	t/day										M/yr					
2026	0.1886	1.8034	1.7955	0.20E-03	0.397	0.0567	0.4238	0.1435	0.0527	0.1962	0	475.1925	475.1925	0.076	0	475.1975
2019	0.0646	0.4518	2.0105	0.53E-03	0.3251	0.0818	0.3839	0.0876	0.0551	0.1428	0	770.6143	770.6143	0.0899	0	772.8016
Maximum	0.0646	0.4518	2.0105	0.53E-03	0.367	0.0618	0.4238	0.1435	0.0551	0.1962	0	770.6143	770.6143	0.0899	0	772.8016

ANNUAL OPERATION - 2026

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	t/day										M/yr					
Area	4.2448	7.00E-05	17.88E-03	0			3.00E-05	3.00E-05		3.00E-05	3.00E-05	0	0.015	0.015	4.80E-05	0.016
Exhaust	0.1461	0.15268	0.11159	7.59E-03			0.101	0.101		0.101	0.101		0.76781	0.2617	0.0605	0.767148
Mobile	1.4665	0.1108	16.8667	0.0649			0.0494	0.7743	1.8003	0.0499	1.8462		0.02147	0.02147	0.2972	0.028160
Waste					0	0		0	0	158.199	0	158.199	0.3493	0		391.9313
Water										0	0	47.2521	168.2462	1.01210	0.1226	1,191.35
Total	5.8572	7.4392	17.9923	0.0729	6.7249	6.1904	6.8752	1.8902	6.1469	1.9471	205.4511	12,754.53	12,959.99	14.7403	0.1651	13,363.64

PEAK DAILY CONSTRUCTION - SUMMER

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	t/day										t/day					
2018	0.1783	59.5831	35.774	0.0892	18.2141	2.6349	20.7921	9.9999	2.4241	12.3416	0	9,110.70	9,110.70	1.9501	0	9,136.90
2019	0.071511	54.7958	29.8414	0.0862	8.125	1.4237	12.5527	0.8553	1.3402	2.1955	0	8,976.14	8,976.14	1.9169	0	9,004.02
Maximum	0.071511	59.5831	35.774	0.0892	18.2141	2.6349	20.7921	9.9999	2.4241	12.3416	0	9,110.70	9,110.70	1.9501	0	9,136.90

PEAK DAILY OPERATION - SUMMER

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	t/day										t/day					
Area	23.2818	7.70E-04	0.0853	1.00E-06			3.00E-04	3.00E-04		3.00E-04	3.00E-04		0.1834	0.1834	4.80E-04	0.1853
Exhaust	0.0607	0.2293	0.1148	0.0433			0.0332	0.5552	0.5552	0.5552	0.5552		8,795.16	0.73679	0.1694	8,767.10
Mobile	11.0949	44.0683	126.061	0.5			50.8369	0.3842	91.3059	13.5827	0.3384	13.9211	91.69182	0.1694		61,152.63
Waste					0	0		0	0	158.199	0	158.199	0.3493	0		391.9313
Water										0	0	47.2521	168.2462	1.01210	0.1226	1,191.35
Total	35.0616	51.2889	134.251	0.5437	55.8367	0.9178	51.7844	13.5827	0.8919	14.4748			95,827.19	0.822719	2.6653	99,359.82

PEAK DAILY CONSTRUCTION - WINTER

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	t/day										t/day					
2018	0.1883	59.5906	35.7388	0.0888	18.2141	2.6349	20.7921	9.9999	2.4241	12.3416	0	8,880.93	8,880.93	1.9488	0	8,897.56
2019	0.071511	54.7958	29.8414	0.0853	8.125	1.4237	12.5527	0.8553	1.3402	2.1955	0	8,723.14	8,723.14	1.9351	0	8,750.24
Maximum	0.071511	59.5906	35.7388	0.0888	18.2141	2.6349	20.7921	9.9999	2.4241	12.3416	0	8,880.93	8,880.93	1.9488	0	8,897.56

PEAK DAILY OPERATION - WINTER

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	t/day										t/day					
Area	23.2818	7.70E-04	0.0853	1.00E-06			3.00E-04	3.00E-04		3.00E-04	3.00E-04		0.1834	0.1834	4.80E-04	0.1853
Exhaust	0.0607	0.2293	0.1148	0.0433			0.0332	0.5552	0.5552	0.5552	0.5552		8,795.16	0.73679	0.1694	8,767.10
Mobile	11.0949	44.0683	126.061	0.4748			50.8369	0.3867	91.3059	13.5827	0.3388	13.9224	91.69240	0.1694		61,065.52
Waste					0	0		0	0	158.199	0	158.199	0.3493	0		391.9313
Water										0	0	47.2521	168.2462	1.01210	0.1226	1,191.35
Total	35.1873	52.2384	132.157	0.5183	55.8367	0.9192	51.7859	13.5827	0.8853	14.476			97,287.77	0.828777	2.6129	97,370.81

Project Characteristics

Project Name	Cumulative Project Analysis	
Project Location	County	San Diego
CEC Forecasting Climate Zone	13	
Start of Construction	Monday, June 4, 2018	
Operational Year	2027	
Select Utility Company	San Diego Gas & Electric	

Land Use

Land Use Type	Land Use Subtype	Unit Amou	Size Metric
Commercial	General Office Building	2,277	1000sqft
Commercial	Office Park	838	1000sqft
Recreational	Quality Restaurant	148	1000sqft
Residential	Condo/Townhouse High Rise	1,564	Dwelling Unit
Recreational	Hotel	5,972	Room

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SAN Fuel Farm
San Diego County APCD Air District, Annual**1.0 Project Characteristics**

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	35.00	1000sqft	0.80	35,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2021
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	720.49	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use -

Construction Phase - '

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Grading - '

Trips and VMT - '

Architectural Coating - '

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Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	17,500.00	47,533.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	100.00	200.00
tblConstructionPhase	NumDays	2.00	36.00
tblConstructionPhase	NumDays	5.00	30.00
tblConstructionPhase	NumDays	1.00	30.00
tblConstructionPhase	NumDays	5.00	30.00
tblConstructionPhase	PhaseEndDate	7/31/2019	12/11/2020
tblConstructionPhase	PhaseEndDate	7/31/2019	11/27/2020
tblConstructionPhase	PhaseEndDate	7/31/2019	10/31/2019
tblConstructionPhase	PhaseEndDate	7/31/2019	12/12/2019
tblConstructionPhase	PhaseEndDate	7/31/2019	9/11/2019
tblConstructionPhase	PhaseStartDate	8/1/2019	11/30/2020
tblConstructionPhase	PhaseStartDate	8/1/2019	2/22/2020
tblConstructionPhase	PhaseStartDate	8/1/2019	9/12/2019
tblConstructionPhase	PhaseStartDate	8/1/2019	11/1/2019
tblGrading	AcresOfGrading	0.00	0.80
tblGrading	AcresOfGrading	15.00	0.80
tblGrading	MaterialExported	0.00	5,185.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblTripsAndVMT	HaulingTripNumber	0.00	100.00
tblTripsAndVMT	HaulingTripNumber	0.00	299.00
tblTripsAndVMT	HaulingTripNumber	0.00	216.00
tblTripsAndVMT	HaulingTripNumber	0.00	17.00

2.0 Emissions Summary

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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					
2019	0.0476	0.5861	0.3620	1.0300e-003	0.0289	0.0225	0.0514	0.0115	0.0211	0.0326	0.0000	95.6919	95.6919	0.0161	0.0000	96.0945
2020	0.6879	1.0920	0.9243	1.6700e-003	0.0193	0.0592	0.0785	5.2300e-003	0.0546	0.0598	0.0000	148.7090	148.7090	0.0386	0.0000	149.6733
Maximum	0.6879	1.0920	0.9243	1.6700e-003	0.0289	0.0592	0.0785	0.0115	0.0546	0.0598	0.0000	148.7090	148.7090	0.0386	0.0000	149.6733

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					
2019	0.0476	0.5861	0.3620	1.0300e-003	0.0289	0.0225	0.0514	0.0115	0.0211	0.0326	0.0000	95.6919	95.6919	0.0161	0.0000	96.0944
2020	0.6879	1.0920	0.9243	1.6700e-003	0.0193	0.0592	0.0785	5.2300e-003	0.0546	0.0598	0.0000	148.7089	148.7089	0.0386	0.0000	149.6732
Maximum	0.6879	1.0920	0.9243	1.6700e-003	0.0289	0.0592	0.0785	0.0115	0.0546	0.0598	0.0000	148.7089	148.7089	0.0386	0.0000	149.6732

[illegible]

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-1-2019	9-30-2019	0.2815	0.2815
		Highest	0.2815	0.2815

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1773	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.3000e-004	6.3000e-004	0.0000	0.0000	6.7000e-004
Energy	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	118.3007	118.3007	4.3100e-003	1.2000e-003	118.7665
Mobile	0.0568	0.2539	0.6936	2.3600e-003	0.2027	2.0100e-003	0.2047	0.0543	1.8800e-003	0.0562	0.0000	217.5416	217.5416	0.0115	0.0000	217.8294
Waste						0.0000	0.0000		0.0000	0.0000	8.8098	0.0000	8.8098	0.5206	0.0000	21.8259
Water						0.0000	0.0000		0.0000	0.0000	2.5678	34.4420	37.0097	0.2651	6.5100e-003	45.5790
Total	0.2363	0.2737	0.7106	2.4800e-003	0.2027	3.5200e-003	0.2062	0.0543	3.3900e-003	0.0577	11.3776	370.2850	381.6625	0.8016	7.7100e-003	404.0014

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1773	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.3000e-004	6.3000e-004	0.0000	0.0000	6.7000e-004
Energy	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	118.3007	118.3007	4.3100e-003	1.2000e-003	118.7665
Mobile	0.0568	0.2539	0.6936	2.3600e-003	0.2027	2.0100e-003	0.2047	0.0543	1.8800e-003	0.0562	0.0000	217.5416	217.5416	0.0115	0.0000	217.8294
Waste						0.0000	0.0000		0.0000	0.0000	8.8098	0.0000	8.8098	0.5206	0.0000	21.8259
Water						0.0000	0.0000		0.0000	0.0000	2.5678	34.4420	37.0097	0.2651	6.5100e-003	45.5790
Total	0.2363	0.2737	0.7106	2.4800e-003	0.2027	3.5200e-003	0.2062	0.0543	3.3900e-003	0.0577	11.3776	370.2850	381.6625	0.8016	7.7100e-003	404.0014

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

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	1_Site Preparation	Site Preparation	8/1/2019	9/11/2019	5	30	
2	2_Grading	Grading	9/12/2019	10/31/2019	5	36	
3	3_Foundation Paving	Paving	11/1/2019	12/12/2019	5	30	
4	4_Dike Walls	Paving	1/1/2020	2/11/2020	5	30	
5	5_Tank Installation	Building Construction	2/22/2020	11/27/2020	5	200	
6	6_Surface Coating	Architectural Coating	11/30/2020	12/11/2020	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 52,500; Non-Residential Outdoor: 47,533; Striped Parking Area: 0
(Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
6_Surface Coating	Air Compressors	1	6.00	78	0.48
3_Foundation Paving	Cement and Mortar Mixers	4	6.00	9	0.56
4_Dike Walls	Cement and Mortar Mixers	4	6.00	9	0.56
2_Grading	Concrete/Industrial Saws	1	8.00	81	0.73
5_Tank Installation	Cranes	1	4.00	231	0.29
5_Tank Installation	Forklifts	2	6.00	89	0.20
1_Site Preparation	Graders	1	8.00	187	0.41
3_Foundation Paving	Pavers	1	7.00	130	0.42
3_Foundation Paving	Rollers	1	7.00	80	0.38
4_Dike Walls	Pavers	1	7.00	130	0.42
2_Grading	Rubber Tired Dozers	1	1.00	247	0.40
5_Tank Installation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
4_Dike Walls	Rollers	1	7.00	80	0.38
2_Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
3_Foundation Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
1_Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
4_Dike Walls	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

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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
6_Surface Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
5_Tank Installation	5	15.00	6.00	100.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
4_Dike Walls	7	18.00	0.00	17.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
2_Grading	4	10.00	0.00	648.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
3_Foundation Paving	7	18.00	0.00	299.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
1_Site Preparation	2	5.00	0.00	216.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 1_Site Preparation - 2019

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					4.2000e-004	0.0000	4.2000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0108	0.1338	0.0621	1.5000e-004		5.5100e-003	5.5100e-003		5.0700e-003	5.0700e-003	0.0000	13.1338	13.1338	4.1600e-003	0.0000	13.2377
Total	0.0108	0.1338	0.0621	1.5000e-004	4.2000e-004	5.5100e-003	5.9300e-003	5.0000e-005	5.0700e-003	5.1200e-003	0.0000	13.1338	13.1338	4.1600e-003	0.0000	13.2377

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3.2 1_Site Preparation - 2019**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	9.5000e-004	0.0331	7.2200e-003	9.0000e-005	1.8500e-003	1.2000e-004	1.9700e-003	5.1000e-004	1.2000e-004	6.3000e-004	0.0000	8.4196	8.4196	7.6000e-004	0.0000	8.4387
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	3.0000e-004	2.3000e-004	2.1900e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5614	0.5614	2.0000e-005	0.0000	0.5618
Total	1.2500e-003	0.0333	9.4100e-003	1.0000e-004	2.4500e-003	1.2000e-004	2.5800e-003	6.7000e-004	1.2000e-004	7.9000e-004	0.0000	8.9810	8.9810	7.8000e-004	0.0000	9.0005

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					4.2000e-004	0.0000	4.2000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0108	0.1338	0.0621	1.5000e-004		5.5100e-003	5.5100e-003		5.0700e-003	5.0700e-003	0.0000	13.1338	13.1338	4.1600e-003	0.0000	13.2377
Total	0.0108	0.1338	0.0621	1.5000e-004	4.2000e-004	5.5100e-003	5.9300e-003	5.0000e-005	5.0700e-003	5.1200e-003	0.0000	13.1338	13.1338	4.1600e-003	0.0000	13.2377

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3.2 1_Site Preparation - 2019**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	9.5000e-004	0.0331	7.2200e-003	9.0000e-005	1.8500e-003	1.2000e-004	1.9700e-003	5.1000e-004	1.2000e-004	6.3000e-004	0.0000	8.4196	8.4196	7.6000e-004	0.0000	8.4387
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	3.0000e-004	2.3000e-004	2.1900e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5614	0.5614	2.0000e-005	0.0000	0.5618
Total	1.2500e-003	0.0333	9.4100e-003	1.0000e-004	2.4500e-003	1.2000e-004	2.5800e-003	6.7000e-004	1.2000e-004	7.9000e-004	0.0000	8.9810	8.9810	7.8000e-004	0.0000	9.0005

3.3 2_Grading - 2019**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					0.0143	0.0000	0.0143	7.5500e-003	0.0000	7.5500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0172	0.1549	0.1385	2.2000e-004		9.6700e-003	9.6700e-003		9.2200e-003	9.2200e-003	0.0000	18.9364	18.9364	3.6100e-003	0.0000	19.0267
Total	0.0172	0.1549	0.1385	2.2000e-004	0.0143	9.6700e-003	0.0240	7.5500e-003	9.2200e-003	0.0168	0.0000	18.9364	18.9364	3.6100e-003	0.0000	19.0267

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3.3 2_Grading - 2019**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	2.8500e-003	0.0993	0.0217	2.6000e-004	5.5400e-003	3.7000e-004	5.9200e-003	1.5200e-003	3.5000e-004	1.8800e-003	0.0000	25.2589	25.2589	2.2900e-003	0.0000	25.3160
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-004	5.4000e-004	5.2700e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.3473	1.3473	4.0000e-005	0.0000	1.3484
Total	3.5600e-003	0.0998	0.0269	2.7000e-004	6.9800e-003	3.8000e-004	7.3700e-003	1.9000e-003	3.6000e-004	2.2700e-003	0.0000	26.6062	26.6062	2.3300e-003	0.0000	26.6644

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					0.0143	0.0000	0.0143	7.5500e-003	0.0000	7.5500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0172	0.1549	0.1385	2.2000e-004		9.6700e-003	9.6700e-003		9.2200e-003	9.2200e-003	0.0000	18.9364	18.9364	3.6100e-003	0.0000	19.0267
Total	0.0172	0.1549	0.1385	2.2000e-004	0.0143	9.6700e-003	0.0240	7.5500e-003	9.2200e-003	0.0168	0.0000	18.9364	18.9364	3.6100e-003	0.0000	19.0267

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3.3 2_Grading - 2019**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	2.8500e-003	0.0993	0.0217	2.6000e-004	5.5400e-003	3.7000e-004	5.9200e-003	1.5200e-003	3.5000e-004	1.8800e-003	0.0000	25.2589	25.2589	2.2900e-003	0.0000	25.3160
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-004	5.4000e-004	5.2700e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.3473	1.3473	4.0000e-005	0.0000	1.3484
Total	3.5600e-003	0.0998	0.0269	2.7000e-004	6.9800e-003	3.8000e-004	7.3700e-003	1.9000e-003	3.6000e-004	2.2700e-003	0.0000	26.6062	26.6062	2.3300e-003	0.0000	26.6644

3.4 3_Foundation Paving - 2019**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	0.0125	0.1177	0.1072	1.7000e-004		6.6400e-003	6.6400e-003		6.1600e-003	6.1600e-003	0.0000	14.3587	14.3587	4.1000e-003	0.0000	14.4613
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0125	0.1177	0.1072	1.7000e-004		6.6400e-003	6.6400e-003		6.1600e-003	6.1600e-003	0.0000	14.3587	14.3587	4.1000e-003	0.0000	14.4613

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3.4 3_Foundation Paving - 2019**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	1.3100e-003	0.0458	9.9900e-003	1.2000e-004	2.5600e-003	1.7000e-004	2.7300e-003	7.0000e-004	1.6000e-004	8.7000e-004	0.0000	11.6549	11.6549	1.0600e-003	0.0000	11.6813
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	1.0600e-003	8.2000e-004	7.9000e-003	2.0000e-005	2.1700e-003	2.0000e-005	2.1800e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	2.0209	2.0209	6.0000e-005	0.0000	2.0226
Total	2.3700e-003	0.0466	0.0179	1.4000e-004	4.7300e-003	1.9000e-004	4.9100e-003	1.2800e-003	1.7000e-004	1.4600e-003	0.0000	13.6759	13.6759	1.1200e-003	0.0000	13.7039

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	0.0125	0.1177	0.1072	1.7000e-004		6.6400e-003	6.6400e-003		6.1600e-003	6.1600e-003	0.0000	14.3587	14.3587	4.1000e-003	0.0000	14.4613
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0125	0.1177	0.1072	1.7000e-004		6.6400e-003	6.6400e-003		6.1600e-003	6.1600e-003	0.0000	14.3587	14.3587	4.1000e-003	0.0000	14.4613

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3.4 3_Foundation Paving - 2019**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	1.3100e-003	0.0458	9.9900e-003	1.2000e-004	2.5600e-003	1.7000e-004	2.7300e-003	7.0000e-004	1.6000e-004	8.7000e-004	0.0000	11.6549	11.6549	1.0600e-003	0.0000	11.6813
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	1.0600e-003	8.2000e-004	7.9000e-003	2.0000e-005	2.1700e-003	2.0000e-005	2.1800e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	2.0209	2.0209	6.0000e-005	0.0000	2.0226
Total	2.3700e-003	0.0466	0.0179	1.4000e-004	4.7300e-003	1.9000e-004	4.9100e-003	1.2800e-003	1.7000e-004	1.4600e-003	0.0000	13.6759	13.6759	1.1200e-003	0.0000	13.7039

3.5 4_Dike Walls - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0116	0.1084	0.1067	1.7000e-004		5.9300e-003	5.9300e-003		5.5000e-003	5.5000e-003	0.0000	14.0894	14.0894	4.1000e-003	0.0000	14.1920
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0116	0.1084	0.1067	1.7000e-004		5.9300e-003	5.9300e-003		5.5000e-003	5.5000e-003	0.0000	14.0894	14.0894	4.1000e-003	0.0000	14.1920

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3.5 4_Dike Walls - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	2.4200e-003	5.5000e-004	1.0000e-005	1.5000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.6556	0.6556	6.0000e-005	0.0000	0.6570
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	1.0000e-003	7.4000e-004	7.2200e-003	2.0000e-005	2.1700e-003	2.0000e-005	2.1800e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	1.9572	1.9572	6.0000e-005	0.0000	1.9586
Total	1.0700e-003	3.1600e-003	7.7700e-003	3.0000e-005	2.3200e-003	3.0000e-005	2.3300e-003	6.2000e-004	2.0000e-005	6.4000e-004	0.0000	2.6127	2.6127	1.2000e-004	0.0000	2.6157

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	0.0116	0.1084	0.1067	1.7000e-004		5.9300e-003	5.9300e-003		5.5000e-003	5.5000e-003	0.0000	14.0894	14.0894	4.1000e-003	0.0000	14.1920
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0116	0.1084	0.1067	1.7000e-004		5.9300e-003	5.9300e-003		5.5000e-003	5.5000e-003	0.0000	14.0894	14.0894	4.1000e-003	0.0000	14.1920

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3.5 4_Dike Walls - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	2.4200e-003	5.5000e-004	1.0000e-005	1.5000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.6556	0.6556	6.0000e-005	0.0000	0.6570
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	1.0000e-003	7.4000e-004	7.2200e-003	2.0000e-005	2.1700e-003	2.0000e-005	2.1800e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	1.9572	1.9572	6.0000e-005	0.0000	1.9586
Total	1.0700e-003	3.1600e-003	7.7700e-003	3.0000e-005	2.3200e-003	3.0000e-005	2.3300e-003	6.2000e-004	2.0000e-005	6.4000e-004	0.0000	2.6127	2.6127	1.2000e-004	0.0000	2.6157

3.6 5_Tank Installation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0862	0.8852	0.7388	1.1400e-003		0.0522	0.0522		0.0481	0.0481	0.0000	100.0605	100.0605	0.0324	0.0000	100.8695
Total	0.0862	0.8852	0.7388	1.1400e-003		0.0522	0.0522		0.0481	0.0481	0.0000	100.0605	100.0605	0.0324	0.0000	100.8695

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3.6 5_Tank Installation - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-004	0.0142	3.2600e-003	4.0000e-005	8.6000e-004	4.0000e-005	9.0000e-004	2.3000e-004	4.0000e-005	2.8000e-004	0.0000	3.8562	3.8562	3.5000e-004	0.0000	3.8649
Vendor	2.2900e-003	0.0684	0.0182	1.6000e-004	3.9800e-003	3.3000e-004	4.3200e-003	1.1500e-003	3.2000e-004	1.4700e-003	0.0000	15.8317	15.8317	1.2100e-003	0.0000	15.8620
Worker	5.5300e-003	4.0900e-003	0.0401	1.2000e-004	0.0120	9.0000e-005	0.0121	3.2000e-003	8.0000e-005	3.2800e-003	0.0000	10.8731	10.8731	3.3000e-004	0.0000	10.8813
Total	8.2200e-003	0.0867	0.0616	3.2000e-004	0.0169	4.6000e-004	0.0173	4.5800e-003	4.4000e-004	5.0300e-003	0.0000	30.5611	30.5611	1.8900e-003	0.0000	30.6082

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	0.0862	0.8852	0.7388	1.1400e-003		0.0522	0.0522		0.0481	0.0481	0.0000	100.0604	100.0604	0.0324	0.0000	100.8694
Total	0.0862	0.8852	0.7388	1.1400e-003		0.0522	0.0522		0.0481	0.0481	0.0000	100.0604	100.0604	0.0324	0.0000	100.8694

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3.6 5_Tank Installation - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-004	0.0142	3.2600e-003	4.0000e-005	8.6000e-004	4.0000e-005	9.0000e-004	2.3000e-004	4.0000e-005	2.8000e-004	0.0000	3.8562	3.8562	3.5000e-004	0.0000	3.8649
Vendor	2.2900e-003	0.0684	0.0182	1.6000e-004	3.9800e-003	3.3000e-004	4.3200e-003	1.1500e-003	3.2000e-004	1.4700e-003	0.0000	15.8317	15.8317	1.2100e-003	0.0000	15.8620
Worker	5.5300e-003	4.0900e-003	0.0401	1.2000e-004	0.0120	9.0000e-005	0.0121	3.2000e-003	8.0000e-005	3.2800e-003	0.0000	10.8731	10.8731	3.3000e-004	0.0000	10.8813
Total	8.2200e-003	0.0867	0.0616	3.2000e-004	0.0169	4.6000e-004	0.0173	4.5800e-003	4.4000e-004	5.0300e-003	0.0000	30.5611	30.5611	1.8900e-003	0.0000	30.6082

3.7 6_Surface Coating - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5796					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	0.5808	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791

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3.7 6_Surface Coating - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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-005	4.0000e-005	4.0000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1087	0.1087	0.0000	0.0000	0.1088
Total	6.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1087	0.1087	0.0000	0.0000	0.1088

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					
Archit. Coating	0.5796					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	0.5808	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791

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3.7 6_Surface Coating - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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-005	4.0000e-005	4.0000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1087	0.1087	0.0000	0.0000	0.1088
Total	6.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1087	0.1087	0.0000	0.0000	0.1088

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

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0568	0.2539	0.6936	2.3600e-003	0.2027	2.0100e-003	0.2047	0.0543	1.8800e-003	0.0562	0.0000	217.5416	217.5416	0.0115	0.0000	217.8294
Unmitigated	0.0568	0.2539	0.6936	2.3600e-003	0.2027	2.0100e-003	0.2047	0.0543	1.8800e-003	0.0562	0.0000	217.5416	217.5416	0.0115	0.0000	217.8294

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	243.95	46.20	23.80	537,920	537,920
Total	243.95	46.20	23.80	537,920	537,920

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

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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	96.6537	96.6537	3.8900e-003	8.0000e-004	96.9908
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	96.6537	96.6537	3.8900e-003	8.0000e-004	96.9908
NaturalGas Mitigated	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	21.6470	21.6470	4.1000e-004	4.0000e-004	21.7757
NaturalGas Unmitigated	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	21.6470	21.6470	4.1000e-004	4.0000e-004	21.7757

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					
General Light Industry	405650	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	21.6470	21.6470	4.1000e-004	4.0000e-004	21.7757
Total		2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	21.6470	21.6470	4.1000e-004	4.0000e-004	21.7757

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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					
General Light Industry	405650	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	21.6470	21.6470	4.1000e-004	4.0000e-004	21.7757
Total		2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	21.6470	21.6470	4.1000e-004	4.0000e-004	21.7757

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	295750	96.6537	3.8900e-003	8.0000e-004	96.9908
Total		96.6537	3.8900e-003	8.0000e-004	96.9908

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	295750	96.6537	3.8900e-003	8.0000e-004	96.9908
Total		96.6537	3.8900e-003	8.0000e-004	96.9908

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1773	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.3000e-004	6.3000e-004	0.0000	0.0000	6.7000e-004
Unmitigated	0.1773	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.3000e-004	6.3000e-004	0.0000	0.0000	6.7000e-004

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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	0.0406					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1367					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.3000e-004	6.3000e-004	0.0000	0.0000	6.7000e-004
Total	0.1773	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.3000e-004	6.3000e-004	0.0000	0.0000	6.7000e-004

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	0.0406					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1367					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.3000e-004	6.3000e-004	0.0000	0.0000	6.7000e-004
Total	0.1773	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.3000e-004	6.3000e-004	0.0000	0.0000	6.7000e-004

7.0 Water Detail

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7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	37.0097	0.2651	6.5100e-003	45.5790
Unmitigated	37.0097	0.2651	6.5100e-003	45.5790

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	8.09375 / 0	37.0097	0.2651	6.5100e-003	45.5790
Total		37.0097	0.2651	6.5100e-003	45.5790

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	8.09375 / 0	37.0097	0.2651	6.5100e-003	45.5790
Total		37.0097	0.2651	6.5100e-003	45.5790

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

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.8098	0.5206	0.0000	21.8259
Unmitigated	8.8098	0.5206	0.0000	21.8259

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8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	43.4	8.8098	0.5206	0.0000	21.8259
Total		8.8098	0.5206	0.0000	21.8259

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	43.4	8.8098	0.5206	0.0000	21.8259
Total		8.8098	0.5206	0.0000	21.8259

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation
