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# APPENDIX C: AIR QUALITY AND GREENHOUSE GAS EMISSIONS DATA

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# Air Quality Fundamentals

## Terminology

- **AAQS:** Ambient Air Quality Standards
- **Concentrations:** Pollutant material per volumetric unit of air, concentrations are measured in parts per million (ppm), parts per billion (ppb), or micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )
- **Criteria Air Pollutants:** Air pollutants specifically identified for control under the federal Clean Air Act (currently seven—carbon monoxide, nitrogen oxides, lead, sulfur oxides, ozone, and coarse and fine particulates)
- **DPM:** Diesel particulate matter
- **Emissions:** Actual quantity of pollutant, measured in tons per year
- **Sensitive receptor:** Land uses that are more sensitive to air pollution than others due to the types of population groups or activities involved (e.g., residential, retirement facilities, hospitals, and schools)
- **TAC:** Toxic air contaminant.
- **VMT:** Vehicle miles traveled.

## Air Pollutants of Concern

### CRITERIA AIR POLLUTANTS

The pollutants emitted into the ambient air by stationary and mobile sources are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), coarse inhalable particulate matter (PM<sub>10</sub>), fine inhalable particulate matter (PM<sub>2.5</sub>), and lead (Pb) are primary air pollutants. Of these, CO, SO<sub>2</sub>, nitrogen dioxide (NO<sub>2</sub>), coarse inhalable particulate matter (PM<sub>10</sub>), and fine inhalable particulate matter (PM<sub>2.5</sub>) are “criteria air pollutants,” which means that ambient air quality standards (AAQS) have been established for them. ROG and NO<sub>x</sub> are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O<sub>3</sub>) and nitrogen dioxide (NO<sub>2</sub>) are the principal secondary pollutants. Table 3.3-1, *Criteria Air Pollutant Health Effects Summary*, summarizes the potential health effects associated with the criteria air pollutants.

**Table 3.3-1 Criteria Air Pollutant Health Effects Summary**

Pollutant	Health Effects	Examples of Sources
Carbon Monoxide (CO)	Chest pain in heart patients Headaches, nausea Reduced mental alertness Death at very high levels	Any source that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves

**Table 3.3-1 Criteria Air Pollutant Health Effects Summary**

Ozone (O <sub>3</sub> )	Cough, chest tightness Difficulty taking a deep breath Worsened asthma symptoms Lung inflammation	Atmospheric reaction of organic gases with nitrogen oxides in sunlight
Nitrogen Dioxide (NO <sub>2</sub> )	Increased response to allergens Aggravation of respiratory illness	Same as carbon monoxide sources
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	Hospitalizations for worsened heart diseases Emergency room visits for asthma Premature death	Cars and trucks (particularly diesels) Fireplaces and woodstoves Windblown dust from overlays, agriculture, and construction
Sulfur Dioxide (SO <sub>2</sub> )	Aggravation of respiratory disease (e.g., asthma and emphysema) Reduced lung function	Combustion of sulfur-containing fossil fuels, smelting of sulfur-bearing metal ores, and industrial processes
Lead (Pb)	Behavioral and learning disabilities in children Nervous system impairment	Contaminated soil

Sources: CARB 2023; SCAQMD 2005.

A description of each of the primary and secondary criteria air pollutants and its known health effects is presented herein.

- **Carbon Monoxide (CO)** is a colorless, odorless gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (CARB 2024d).
- **Reactive Organic Gases (ROGs)** are compounds composed primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources of ROGs include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. There are no ambient air quality standards established for ROGs (EPA 2024b).
- **Nitrogen Oxides (NO<sub>x</sub>)** are a by-product of fuel combustion and contribute to the formation of ground-level O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The two major forms of NO<sub>x</sub> are nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. The principal form of NO<sub>x</sub> produced by combustion is NO, but NO reacts quickly with oxygen to form NO<sub>2</sub>, creating the mixture of NO and NO<sub>2</sub> commonly

called  $\text{NO}_x$ .  $\text{NO}_2$  is an acute irritant and more injurious than  $\text{NO}$  in equal concentrations. At atmospheric concentrations, however,  $\text{NO}_2$  is only potentially irritating.  $\text{NO}_2$  absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility.  $\text{NO}$  is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure.  $\text{NO}_2$  acts as an acute irritant and in equal concentrations is more injurious than  $\text{NO}$ . At atmospheric concentrations, however,  $\text{NO}_2$  is only potentially irritating. There is some indication of a relationship between  $\text{NO}_2$  and chronic pulmonary fibrosis. Some increase in bronchitis in children (2 and 3 years old) has also been observed at concentrations below 0.3 parts per million (ppm) (CARB 2024h).

- **Sulfur Dioxide ( $\text{SO}_2$ )** is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and from chemical processes at chemical plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of  $\text{SO}_2$ . When sulfur dioxide forms sulfates ( $\text{SO}_4$ ) in the atmosphere, together these pollutants are referred to as sulfur oxides ( $\text{SO}_x$ ). Thus,  $\text{SO}_2$  is a primary and secondary criteria air pollutant. At sufficiently high concentrations,  $\text{SO}_2$  may irritate the upper respiratory tract. Current scientific evidence links short-term exposures to  $\text{SO}_2$ , ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects including bronchoconstriction and increased asthma symptoms. These effects are particularly important for asthmatics at elevated ventilation rates (e.g., while exercising or playing) at lower concentrations and when combined with particulates,  $\text{SO}_2$  may do greater harm by injuring lung tissue (CARB 2024j).
- **Suspended Particulate Matter ( $\text{PM}_{10}$ )** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Extended exposure to particulate matter can increase the risk of chronic respiratory disease.  $\text{PM}_{10}$  bypasses the body's natural filtration system more easily than larger particles and can lodge deep in the lungs. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing). Wood burning in fireplaces and stoves and motor vehicles are large sources of fine particulates (CARB 2024f).
- **Suspended Particulate Matter ( $\text{PM}_{2.5}$ )** is another form of fine particulate matter that has an aerodynamic diameter of 2.5 microns or less (i.e., 2.5 millionths of a meter or 0.0001 inch). Fine particulate matter originates from a variety of sources, including fossil fuel combustion, residential wood burning and cooking, and natural sources, such as wildfires and dust. As mentioned above, extended exposure to particulate matter can cause negative effects on the respiratory system, such as triggering asthma attacks, aggravating bronchitis, and diminishing lung function.  $\text{PM}_{2.5}$  studies have also found harm to the cardiovascular system and impacts on the brain, such as reduced cognitive function (CARB 2024d).
- **Ozone ( $\text{O}_3$ )** is a key ingredient of "smog" and is a gas that is formed when ROG and  $\text{NO}_x$ , both by-products of internal combustion engine exhaust, undergo photochemical reactions in sunlight.  $\text{O}_3$  is a secondary criteria air pollutant.  $\text{O}_3$  concentrations are

generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for its formation. O<sub>3</sub> poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O<sub>3</sub> can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma; reduce lung function; and inflame the linings of the lungs. Besides causing shortness of breath, it can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema. Chronic exposure to high ozone levels can permanently damage lung tissue. O<sub>3</sub> can also damage plants and trees and materials such as rubber and fabrics (CARB 2024i).

- **Lead (Pb)** is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phasing out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in the air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers (CARB 2024e).

## **TOXIC AIR CONTAMINANTS**

People exposed to toxic air contaminants (TACs) at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects. These health effects can include damage to the immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and other health problems (EPA 2023). At the time of the last update to the TAC list in 2007, the California Air Resources Board (CARB) had designated over 200 compounds as TACs (CARB 2025). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. There are no air quality standards for TACs. Instead, TAC impacts are evaluated by calculating the health risks associated with a given exposure. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most relevant to the proposed project being particulate matter from diesel-fueled engines.

## **DIESEL PARTICULATE MATTER**

In 1998, CARB identified diesel particulate matter (DPM) as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of the extremely small size, particles can be inhaled and eventually trapped in the lungs. Long-term (chronic) inhalation of DPM is likely a lung cancer risk. Short-term (i.e., acute) exposure can cause irritation and inflammatory symptoms and may exacerbate existing allergies and asthma symptoms (EPA 2002).

## **PLACEMENT OF NEW SENSITIVE RECEPTORS**

Because placement of sensitive land uses falls outside CARB's jurisdiction, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* to address the compatibility and associated health risks of siting sensitive land uses in the vicinity of

freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. CARB’s recommendations on the siting of new sensitive land uses identified in Table 3.3-2, *CARB Recommendations for Siting New Sensitive Land Uses*, were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources.

**Table 3.3-2 CARB Recommendations for Siting New Sensitive Land Uses**

Source/Category	Advisory Recommendations
Freeways and High-Traffic Roads	Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day.
Distribution Centers	Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units [TRUs] per day, or where TRU unit operations exceed 300 hours per week).  Take into account the configuration of existing distribution centers and avoid locating residences and other sensitive land uses near entry and exit points.
Rail Yards	Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or CARB on the status of pending analyses of health risks.
Refineries	Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Gasoline Dispensing Facilities	Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities.

Source: CARB 2005.

The key observation in these studies is that proximity to air pollution sources substantially increases both exposure and the potential for adverse health effects. There are three carcinogenic TACs that constitute the majority of the known health risks from motor vehicle traffic: DPM from trucks, benzene, and 1,3-butadiene from passenger vehicles. In 2017, CARB provided a supplemental technical advisory to the handbook for near-roadway air pollution exposure, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways*. Strategies include practices and technologies that reduce traffic emissions, increase dispersion of traffic pollution (or the dilution of pollution in the air), or remove pollution from the air (CARB 2017).

# Greenhouse Gas Emissions Fundamentals

## Terminology

- **Greenhouse gases (GHG).** Gases in the atmosphere that absorb infrared light, thereby retaining heat in the atmosphere and contributing to a greenhouse effect.
- **Global warming potential (GWP).** Metric used to describe how much heat a molecule of a GHG absorbs relative to a molecule of carbon dioxide (CO<sub>2</sub>) over a given period (20,100, and 500 years). CO<sub>2</sub> has a GWP of 1.
- **Carbon dioxide-equivalent (CO<sub>2</sub>e).** The standard unit to measure the amount of GHGs in terms of the amount of CO<sub>2</sub> that would cause the same amount of warming. CO<sub>2</sub>e is based on the GWP ratios between the various GHGs relative to CO<sub>2</sub>.
- **MTCO<sub>2</sub>e.** Metric ton of CO<sub>2</sub>e.
- **MMTCO<sub>2</sub>e.** Million metric tons of CO<sub>2</sub>e.

## Greenhouse Gas and Climate Change

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. The primary source of these GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and ozone (O<sub>3</sub>)—that are the likely cause of an increase in global average temperatures observed in the 20th and 21st centuries. Other GHGs identified by the IPCC that contribute to global warming to a lesser extent are nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons. The major GHGs are briefly described below.

- **Carbon dioxide (CO<sub>2</sub>)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (i.e., sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH<sub>4</sub>)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock, and other agricultural practices, and from the decay of organic waste in landfills and water treatment facilities.
- **Nitrous oxide (N<sub>2</sub>O)** is emitted during agricultural and industrial activities as well as during the combustion of fossil fuels and solid waste.

GHGs are dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Some GHGs have a stronger greenhouse effect than others. These are referred to as high global warming potential (GWP) gases. The GWP of applicable GHG emissions are shown in Table 3.8-1, *Greenhouse Gas Emissions and Their Relative Global Warming Potential Compared to CO<sub>2</sub>*. The GWP is used to convert GHGs to CO<sub>2</sub>-equivalence (CO<sub>2</sub>e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the

greenhouse effect. For example, under IPCC’s Fifth Assessment Report (AR5) GWP values for methane (CH<sub>4</sub>), a project that generates 10 metric tons (MT) of CH<sub>4</sub> would be equivalent to 280 MT of CO<sub>2</sub>.

**Table 3.8-1 Greenhouse Gas Emissions and Their Relative Global Warming Potential Compared to CO<sub>2</sub>**

<b>GHGs</b>	<b>Fourth Assessment Report (AR4) Global Warming Potential Relative to CO<sub>2</sub><sup>a</sup></b>	<b>Fifth Assessment Report (AR5) Global Warming Potential Relative to CO<sub>2</sub><sup>a</sup></b>	<b>Sixth Assessment Report (AR6) Global Warming Potential Relative to CO<sub>2</sub><sup>a</sup></b>
Carbon Dioxide (CO <sub>2</sub> )	1	1	1
Methane (CH <sub>4</sub> ) <sup>b</sup>	25	28	30
Nitrous Oxide (N <sub>2</sub> O)	298	265	273

Sources: IPCC 2007, 2013, 2021.

Notes: The IPCC published updated GWP values in its Sixth Assessment Report (AR6) that reflects the latest information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO<sub>2</sub>. However, GWP values identified in AR5 are used by the 2022 Scoping Plan for long-term emissions forecasting. Therefore, this analysis utilizes AR5 GWP values consistent with the current Scoping Plan.

- a. Based on 100-year time horizon of the GWP of the air pollutant compared to CO<sub>2</sub>.
- b. The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO<sub>2</sub> is not included.

**Land Use Statistics - Lake County**

	Existing Conditions	Buildout Estimates	Projected Growth (Proposed Project)	Growth Factor from Existing to Horizon Year	Annual Growth Rate 2024-2050
	2024	2050	2024-2050	2050	Percent (%)
<b>Unincorporated County</b>					
Housing Units	19,000	22,821	3,821	20%	0.007
Population	45,600	54,770	9,170	20%	0.007
Employment	17,270	20,465	3,195	19%	0.007
Non-Residential SQFT	-	-	1,379,720		
Service Population	62,870	75,235	12,365	20%	0.007

## AQMP Consistency Analysis

### Comparison of the Change in Population and VMT in Lake County (O-D Method)

Category	Existing	GP 2050 Update (Proposed Project)	Change from Existing	
			Change	Percent
Population	45,600	54,770	9,170	20.1%
Employment	17,270	20,465	3,195	18.5%
SP	62,870	75,235	12,365	19.7%
VMT per Day	1,153,882	1,474,571	320,689	27.8%
VMT/SP	18.35	19.60	1.25	6.8%

Note Origin-Destination (O-D) Methodology is not necessarily the same methodology for SB 743.

Modeling of vehicle miles traveled (VMT) is provided by Fehr & Peers 2025. VMT from passenger vehicles and trucks that have an origin or destination in the County using a transportation origin-destination methodology. Accounting of VMT is based on the recommendations of CARB's Regional Targets Advisory Committee (RTAC) created under Senate Bill 375 (SB 375).

For accounting purposes, there are three types of trips:

- » Vehicle trips that originated and terminated within the County (Internal-Internal, I-I). Using the accounting rules established by RTAC, 100 percent of the length of these trips, and their emissions, are attributed to the County.
- » Vehicle trips that either originated or terminated (but not both) within the County (Internal-External or External-Internal, I-X and X-I). Using the accounting rules established by RTAC, 50 percent of the trip length for these trips is attributed to the County.
- » Vehicle trips that neither originated nor terminated within the County. These trips are commonly called pass-through trips (External-External, X-X). Using the accounting rules established by RTAC, these trips are not counted towards the County's VMT or emissions.

## Unincorporated Lake County Community Criteria Air Pollutant Emissions Inventory and Forecast

See sources in the following pages

### Unincorporated County

#### EXISTING (2024)

Phase	Existing Criteria Air Pollutant Emissions (lbs/day)				Existing Criteria Air Pollutant Emissions (tons/year)			
	VOC	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	VOC	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Transportation	129	857	74	32	22	149	13	5
Energy	77	995	56	56	14	182	10	10
Offroad Equipment	343	683	42	38	63	125	8	7
Consumer Products	755	0	0	0	138	0	0	0
Wood Burning	3,408	213	2,149	2,082	622	39	392	380
<b>Total</b>	<b>4,712</b>	<b>2,748</b>	<b>2,321</b>	<b>2,207</b>	<b>859</b>	<b>494</b>	<b>423</b>	<b>402</b>

#### Year 2050 (Proposed Project)

Phase	Project (2050) Criteria Air Pollutant Emissions (lbs/day)				Project (2050) Criteria Air Pollutant Emissions (tons/year)			
	VOC	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	VOC	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Transportation	22	146	66	22	4	25	12	4
Energy	92	1,193	67	67	17	218	12	12
Offroad Equipment	119	225	11	10	22	41	2	2
Consumer Products	957	0	0	0	175	0	0	0
Wood Burning	4,065	255	2,574	2,494	742	47	470	455
<b>Total</b>	<b>5,255</b>	<b>1,818</b>	<b>2,719</b>	<b>2,593</b>	<b>959</b>	<b>330</b>	<b>496</b>	<b>473</b>

#### NET CHANGE (from Existing) - Friant Ranch

Phase	Net Change (2050-2024) Criteria Air Pollutant Emissions (lbs/day)				Net Change (2050-2024) Criteria Air Pollutant Emissions (tons/year)			
	VOC	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	VOC	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Transportation	-108	-712	-7	-9	-19	-124	-1	-2
Energy	15	198	11	11	3	36	2	2
Offroad Equipment	-224	-458	-30	-28	-41	-84	-6	-5
Consumer Products	202	0	0	0	37	0	0	0
Wood Burning	658	42	425	412	120	8	78	75
<b>Total</b>	<b>543</b>	<b>-930</b>	<b>398</b>	<b>386</b>	<b>100</b>	<b>-163</b>	<b>73</b>	<b>71</b>
BAAQMD Threshold	54	54	82	54	10	10	15	10
Exceeds Threshold	Yes	No	Yes	Yes	Yes	No	Yes	Yes

## Area Sources - Residential Consumer Products<sup>a</sup>

$$\text{Emissions} = \text{EF} \times \text{Building Area}$$

$$\text{EF} = 2.14\text{E-}05 \text{ lbs/sqft/day}$$

Sources/Notes:

a. California Emissions Estimator Model, Version 2021.1, Users Guide. Appendix D3.

### AVERAGE HOUSING SQFT ASSUMPTIONS

Year Structure was Built	Percent of Housing Stock <sup>a</sup>	Average Square Feet of New	
		Single Family Homes <sup>b</sup>	Average Square Feet (Weighted)
2020 or Later	1.9%	2,466	47
2010 to 2019	6.8%	2,549	173
2000 to 2009	11.6%	2,611	303
1990 to 1999	9.8%	2,348	230
1980 to 1989	14.7%	2,058	302
1979 or earlier	55.2%	1,857	1,025
	100.0%		

Sources/Notes:

a. United States Census Bureau. Selected Housing Characteristics, County of Lake. 2023. Table DP04. 2022 American Community Survey 5-Year Estimate Data Profiles, Year structure built. [https://data.census.gov/table?q=DP04&g=040XX00US06\\_050XX00US06033](https://data.census.gov/table?q=DP04&g=040XX00US06_050XX00US06033)

b. United States Census Bureau. 2024. Characteristics of New Housing, Characteristics of New Single-Family Houses Completed, Median and Average Square Feet by Location. <https://www.census.gov/construction/chars/current.html>

	Existing 2024	2050GP Update
	EIR Study Area	EIR Study Area
<b>Housing Units</b>	19,000	22,821
<b>Residential SQFT</b>	35,285,714	44,707,536
<b>lbs VOC per day</b>	755	957
<b>tons VOC per year</b>	138	175

Notes:

<sup>1</sup> New housing units constructed post-2020 assumed to be 2,456 square feet (based on Source b).

<sup>2</sup> Existing housing units are assumed to be 1,857 square feet based on the average square footage of homes built before 1979 (see Source b.)

<sup>3</sup> Daily emissions converted to annual emissions by multiplying by 365 days/year.

## Average Square feet of Floor Area in Single-Family Houses Completed - West

United States Census Bureau. 2024. Characteristics of New Housing, Characteristics of New Single-Family Houses Completed, Median and Average Square Feet by Location. <https://www.census.gov/construction/chars/completed.html>.

<b>1979 or Earlier</b>	<b>1,857</b>
1973	1,895
1974	1,795
1975	1,715
1976	1,865
1977	1,875
1978	1,965
1979	1,890
<b>1980 to 1989</b>	<b>2,058</b>
1980	1,905
1981	1,965
1982	1,945
1983	2,025
1984	2,040
1985	2,090
1986	2,110
1987	2,095
1988	2,120
1989	2,280
<b>1990 to 1999</b>	<b>2,348</b>
1990	2,350
1991	2,340
1992	2,245
1993	2,265
1994	2,230
1995	2,380
1996	2,245
1997	2,405
1998	2,410
1999	2,613
<b>2000 to 2009</b>	<b>2,611</b>
2000	2,432
2001	2,491
2002	2,575
2003	2,587
2004	2,536
2005	2,697
2006	2,687
2007	2,840
2008	2,604
2009	2,656

<b>2010 to 2019</b>	<b>2,549</b>
2010	2,454
2011	2,289
2012	2,591
2013	2,574
2014	2,538
2015	2,615
2016	2,798
2017	2,531
2018	2,780
2019	2,319
<b>2020 and Later</b>	<b>2,466</b>
2020	2,204
2021	2,494
2022	2,600
2023	2,525
2024	2,506

## Hearth Use for Residential Homes

Sources: California Air Pollution Control Officers Association (CAPCOA), 2022, April, California emissions estimator model (CalEEMod) User's Guide, version 2022.1. <https://www.caieemod.com/user-guide-table-G-22-hearth-usage-by-analysis-level>;  
 Table G-23, Hearth Emissions Factors; Department of Finance (DOF), 2024, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2024. <https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2025/>

### WOOD STOVE AND FIREPLACE USAGE FACTORS

	Wood Fireplace					Wood Mass per Wood Stove			Wood Stove	Wood Stove Non-Catalytic	Wood Stove Pellet	Annual Wood Mass per Stove (kg)
	%	%	%	Electric %	%	Fireplace	Conventional	Catalytic	Catalytic	Pellet	Stove (kg)	
Lake County APCD (Multi-Family)	35%	0%	55%	0%	10%	1,396	70%	15%	10%	5%	1,369	
Lake County APCD (Single-Family)	15%	0%	85%	0%	0%	1,396	80%	5%	10%	5%	1,369	

Note: Fireplaces and stoves in CalEEMod are based on 82 days per year (i.e., everyday during the Winter Season).

### HEARTH EMISSION FACTORS

	lbs/ton of Wood		CO	SO2	PM10	PM2.5	CO2-BIO	CO2-NBIO	CH4	N2O
	ROG	NOx								
Conventional Woodstoves	53	2.8	230.8	0.4	30.6	29.5	2952	0	30	0
Catalytic Woodstoves	15	2	104.4	0.4	20.4	20.4	2952	0	11.6	0
Non-Catalytic Woodstoves	12	2	140.8	0.4	19.6	19.6	2952	0	16	0
Pellet Woodstoves	0.04	3.8	15.9	0.32	3.06	2.9	2952	0	16	0
Wood Fireplace	229	252.6	0.4	2.6	34.6	34.6	3400	0	0	0
Propane Fireplace (lbs/MMBTu)	0.010925	0.0819672	0	0.1421	0.007650	0.007650	0	135.4959	0.00660	0.0013
Natural Gas Fireplace (lbs/MMBTu)	0.005392	0.0921568	0.03921	0.000	0.007451	0.007451	0	135.4959	0.00660	0.0013

Note: Propane hearth usage is accounted within the residential propane energy emissions. No natural gas hearths are assumed for the County.

	2024 <sup>a</sup>	2050 <sup>b</sup>
Single-Family Residential	14,071	15,135
Multi-Family Residential	4,929	7,682
<b>Total Residential Unit:</b>	<b>19,000</b>	<b>22,821</b>

Notes:  
<sup>a</sup> 2024 existing single-family housing units are based on the percentage of selected single-family housing units in the unincorporated county reported by the Department of Finance 2024 E-5 County/State Population and Housing Estimates (DOF, 2024). The number of existing multi-family units are based on the percentage of all other housing types in the unincorporated county reported by the DOF. These percentages (74% for SF and 26% for MF) are applied to the total number of existing housing units in the unincorporated county (19,000) as shown in Chapter 2, *Project Description*, of the Draft EIR.

<sup>b</sup> The 2050 buildout of housing units is based on the growth of single family and multi-family units in each planning area added to the existing number of single and multi-family units. Single-family units account for the units projected within the LDR, Sre, and RR designations while multi-family units account for the units projected in all other residential or mixed use designations.

**FIREPLACE EMISSIONS**

AR5 GWP

1 1 28 265

Existing (2024)	Lbs/Day						MTCO <sub>2</sub> /Year					TOTAL CO <sub>2</sub> e
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> -BIO	CO <sub>2</sub> -NBIO	CH <sub>4</sub>	N <sub>2</sub> O	NON-Bio CO <sub>2</sub> e	
Single-Family Units	2,038	2,248	4	23	308	308	30,262	0	0	3	708	30,970
Multi-Family Units	1,666	1,838	3	19	252	252	24,734	0	0	2	578	25,314
<b>Total Residential Unit:</b>	<b>3,704</b>	<b>4,086</b>	<b>6</b>	<b>42</b>	<b>560</b>	<b>560</b>	<b>54,996</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>1,286</b>	<b>56,282</b>

Proposed (2050)	Lbs/Day						MTCO <sub>2</sub> /Year					TOTAL CO <sub>2</sub> e
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> -BIO	CO <sub>2</sub> -NBIO	CH <sub>4</sub>	N <sub>2</sub> O	NON-Bio CO <sub>2</sub> e	
Single-Family Units	2,193	2,419	4	25	331	331	32,555	0	0	3	761	33,321
Multi-Family Units	2,596	2,864	5	29	392	392	38,545	0	0	3	901	39,450
Total Residential Units	<b>4,789</b>	<b>5,283</b>	<b>8</b>	<b>54</b>	<b>724</b>	<b>724</b>	<b>71,108</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>1,663</b>	<b>72,771</b>
<b>CHANGE FROM EXISTING</b>	<b>1,085</b>	<b>1,197</b>	<b>2</b>	<b>12</b>	<b>164</b>	<b>164</b>	<b>16,112</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>377</b>	<b>16,489</b>

**WOODSTOVE EMISSIONS**

AR5 GWP

1 1 28 265

Existing (2024)	Lbs/Day						MTCO <sub>2</sub> /Year					TOTAL CO <sub>2</sub> e
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> -BIO	CO <sub>2</sub> -NBIO	CH <sub>4</sub>	N <sub>2</sub> O	NON-Bio CO <sub>2</sub> e	
Single-Family Units	2,581	159	11,915	23	1,607	1,555	171,798	0	1,570	0	43,964	215,762
Multi-Family Units	827	54	3,916	8	542	526	60,176	0	512	0	14,345	74,525
Total Residential Units	<b>3,408</b>	<b>213</b>	<b>15,831</b>	<b>31</b>	<b>2,149</b>	<b>2,082</b>	<b>231,974</b>	<b>0</b>	<b>2,083</b>	<b>0</b>	<b>58,314</b>	<b>290,287</b>

Proposed (2050)	Lbs/Day						MTCO <sub>2</sub> /Year					TOTAL CO <sub>2</sub> e
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> -BIO	CO <sub>2</sub> -NBIO	CH <sub>4</sub>	N <sub>2</sub> O	NON-Bio CO <sub>2</sub> e	
Single-Family Units	2,777	171	12,815	25	1,729	1,673	184,837	0	1,689	0	47,301	232,138
Multi-Family Units	1,288	84	6,103	13	845	820	93,788	0	799	0	22,364	116,155
Total Residential Units	<b>4,065</b>	<b>255</b>	<b>18,922</b>	<b>37</b>	<b>2,574</b>	<b>2,494</b>	<b>278,625</b>	<b>0</b>	<b>2,488</b>	<b>0</b>	<b>69,665</b>	<b>348,290</b>
<b>CHANGE FROM EXISTING</b>	<b>658</b>	<b>42</b>	<b>3,092</b>	<b>6</b>	<b>425</b>	<b>412</b>	<b>46,651</b>	<b>0</b>	<b>405</b>	<b>0</b>	<b>11,352</b>	<b>58,003</b>

**TOTAL WOOD BURNING EMISSIONS**

AR5 GWP

1 1 28 265

Existing (2024)	Lbs/Day						MTCO <sub>2</sub> /Year					TOTAL CO <sub>2</sub> e
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> -BIO	CO <sub>2</sub> -NBIO	CH <sub>4</sub>	N <sub>2</sub> O	NON-Bio CO <sub>2</sub> e	
Single-Family Units	4,619	2,407	11,915	46	1,915	1,863	202,060	0	1,570	3	44,672	246,732
Multi-Family Units	2,493	1,892	3,919	27	794	778	84,910	0	512	2	14,928	99,837
Total Residential Units	<b>7,112</b>	<b>4,299</b>	<b>15,837</b>	<b>73</b>	<b>2,709</b>	<b>2,641</b>	<b>286,970</b>	<b>0</b>	<b>2,083</b>	<b>5</b>	<b>59,600</b>	<b>346,567</b>

Proposed (2050)	Lbs/Day						MTCO <sub>2</sub> /Year					TOTAL CO <sub>2</sub> e
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> -BIO	CO <sub>2</sub> -NBIO	CH <sub>4</sub>	N <sub>2</sub> O	NON-Bio CO <sub>2</sub> e	
Single-Family Units	4,970	2,590	12,823	50	2,060	2,005	217,394	0	1,689	3	48,063	265,455
Multi-Family Units	3,885	2,948	6,108	42	1,237	1,212	132,330	0	799	3	23,266	155,605
Total Residential Units	<b>8,855</b>	<b>5,538</b>	<b>18,931</b>	<b>92</b>	<b>3,297</b>	<b>3,217</b>	<b>349,733</b>	<b>0</b>	<b>2,488</b>	<b>6</b>	<b>71,328</b>	<b>421,061</b>
<b>CHANGE FROM EXISTING</b>	<b>1,743</b>	<b>1,239</b>	<b>3,093</b>	<b>19</b>	<b>589</b>	<b>576</b>	<b>62,763</b>	<b>0</b>	<b>405</b>	<b>1</b>	<b>11,728</b>	<b>74,494</b>

**Area Sources**

Source: OFFROAD2021. <https://arb.ca.gov/emfac/emissions-inventory/>

**OFFROAD2021 Estimate based on:**

<b>Agricultural Equipment</b>	Based on acreage of important farmland in unincorporated Lake County
<b>Construction Equipment</b>	Based on housing permits in unincorporated Lake County
<b>Light Commercial and Industrial Equipment</b>	Based on employment in unincorporated Lake County
<b>Lawn &amp; Garden</b>	Based on housing units in unincorporated Lake County

Sources		
<b>Farmland Acreage</b>		
Source: DOC (California Department of Conservation).2023. Lake County Historic Land Use Conversion. <a href="https://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/1984-present/lak_1996-Present.xlsx">https://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/1984-present/lak_1996-Present.xlsx</a>		
Existing Important Farmland Acres in Unincorporated Lake County	22,062	
2050 Important Farmland Acres in Unincorporated Lake County (see Section 5.2, Agricultural and Forestry Resources, of the Draft EIR)	21,182	96%
Net Reduction in Important Farmland	880	-3.99%
<b>Construction (Housing Permits)</b>		
Source: Housing and Urban Development (HUD). 2025, Accessed June 23. SOCDs Building Permits Database. <a href="https://socds.huduser.gov/permits/">https://socds.huduser.gov/permits/</a>		
<b>Employment</b>		
Source: Employment Development Department (EDD). 2025, March 28. Monthly Labor Force Data for Cities and Census Designated Places (CDP), Annual Average 2024. <a href="https://labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html">https://labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html</a>		
<b>Housing</b>		
Source: Department of Finance (DOF). 2024. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2024. <a href="https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2025/">https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2025/</a>		

2024 Existing	ROG Exhaust	NO <sub>x</sub> Exhaust	CO Exhaust	SO <sub>2</sub> Exhaust	PM <sub>10</sub> Exhaust	PM <sub>2.5</sub> Exhaust*
	lbs/year					
Agricultural	122	512	1375	1	33	31
Construction Equipment	19	108	299	0	6	5
Lawn & Garden	137	18	1,607	0	1	1
Light Commercial/ Industrial Equipment	66	44	2,817	0	1	0
<b>TOTAL</b>	<b>343</b>	<b>683</b>	<b>6,098</b>	<b>1</b>	<b>42</b>	<b>38</b>

Horizon Year 2050	ROG Exhaust	NO <sub>x</sub> Exhaust	CO Exhaust	SO <sub>2</sub> Exhaust	PM <sub>10</sub> Exhaust	PM <sub>2.5</sub> Exhaust
	lbs/year					
<b>Forecast Adjusted for:</b>						
Agricultural	42	149	607	1	8	7
Construction Equipment	16	37	320	0	3	2
Lawn & Garden	31	3	59	0	0	0
Light Commercial/ Industrial Equipment	29	35	1,824	0	0	0
<b>TOTAL</b>	<b>119</b>	<b>225</b>	<b>2,810</b>	<b>1</b>	<b>11</b>	<b>10</b>

**Lake County OFFROAD2021: Year 2024**

Source: <https://arb.ca.gov/emfac/offroad/emissions-inventory/ac1e3a1dd06a5013c98eb0ec624495ddf9d9eb1a>

Construction includes: Over 25 horsepower, self-propelled, diesel equipment only subjected to In-Use Regulation; AND Under 25 horsepower equipment not subject to the In-Use Regulation

Model Output: Off-Road Web Query (v1.1.0) Emissions Inventory

Region Type: County

Region: Lake

Calendar Year: 2024

Scenario: All Adopted Rules - Exhaust

Vehicle Classification: Off-Road Web Query Equipment Types

Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Agriculture & Forestry													
Region	CalYr	VehClass	Mdlyr	HP_Bin	Fuel	ROG_tpd	NOx_tpd	CO_tpd	SOx_tpd	PM10_tpd	PM2_5_tpd	CO2_tpd	CO2e_MTY
Lake	2024	Agricultural - Agricultural Tractors	Aggregate	Aggregate	Gasoline	1.60E-05	1.49E-05	2.07E-04	2.43E-08	3.76E-07	3.46E-07	2.71E-03	1
Lake	2024	Agricultural - Agricultural Tractors	Aggregate	Aggregate	Diesel	3.94E-02	2.10E-01	1.91E-01	2.79E-04	1.38E-02	1.27E-02	3.06E+01	10,140
Lake	2024	Agricultural - ATVs	Aggregate	Aggregate	Gasoline	8.51E-03	4.53E-03	1.02E-01	1.06E-05	3.19E-04	2.94E-04	1.19E+00	393
Lake	2024	Agricultural - ATVs	Aggregate	Aggregate	Diesel	5.59E-04	3.64E-03	4.04E-03	5.48E-06	1.40E-04	1.29E-04	6.01E-01	199
Lake	2024	Agricultural - ATVs	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2024	Agricultural - Bale Wagons (Self Propelled)	Aggregate	Aggregate	Diesel	5.88E-05	5.03E-04	4.11E-04	6.36E-07	2.45E-05	2.26E-05	6.97E-02	23
Lake	2024	Agricultural - Balers (Self Propelled)	Aggregate	Aggregate	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2024	Agricultural - Combine Harvesters	Aggregate	Aggregate	Diesel	2.64E-04	2.34E-03	1.75E-03	4.09E-06	9.89E-05	9.10E-05	4.48E-01	148
Lake	2024	Agricultural - Construction Equipment	Aggregate	Aggregate	Diesel	6.59E-04	5.72E-03	4.87E-03	7.81E-06	2.87E-04	2.64E-04	8.56E-01	283
Lake	2024	Agricultural - Cotton Pickers	Aggregate	Aggregate	Diesel	7.03E-06	6.30E-05	4.67E-05	1.13E-07	2.59E-06	2.38E-06	1.24E-02	4
Lake	2024	Agricultural - Forage & Silage Harvesters	Aggregate	Aggregate	Diesel	6.69E-05	6.55E-04	4.52E-04	8.43E-07	2.72E-05	2.50E-05	9.24E-02	31
Lake	2024	Agricultural - Forklifts	Aggregate	Aggregate	Diesel	8.20E-04	5.25E-03	4.60E-03	6.41E-06	2.94E-04	2.71E-04	7.03E-01	233
Lake	2024	Agricultural - Hay Squeeze/Stack retriever	Aggregate	Aggregate	Diesel	3.34E-05	2.89E-04	1.62E-04	4.84E-07	1.30E-05	1.20E-05	5.30E-02	18
Lake	2024	Agricultural - Misc - 2-Wheel Tractors	Aggregate	Aggregate	Gasoline	5.71E-04	3.85E-04	1.72E-02	2.79E-07	1.72E-04	1.30E-04	6.30E-06	0
Lake	2024	Agricultural - Misc - Hydro Power Units	Aggregate	Aggregate	Gasoline	3.96E-04	2.68E-04	1.23E-02	1.96E-07	1.34E-04	1.02E-04	4.40E-06	0
Lake	2024	Agricultural - Misc - Hydro Power Units	Aggregate	Aggregate	Diesel	1.08E-05	6.79E-05	4.11E-05	1.01E-09	2.30E-06	1.75E-06	1.58E-06	0
Lake	2024	Agricultural - Misc - Mowers	Aggregate	Aggregate	Gasoline	5.09E-04	3.46E-04	1.50E-02	2.41E-07	1.73E-04	1.31E-04	5.34E-06	0
Lake	2024	Agricultural - Misc - Other	Aggregate	Aggregate	Gasoline	2.97E-05	1.86E-05	8.78E-04	1.42E-08	7.74E-06	5.84E-06	3.15E-07	0
Lake	2024	Agricultural - Misc - Other	Aggregate	Aggregate	Diesel	1.17E-05	7.40E-05	4.46E-05	1.10E-09	2.51E-06	1.90E-06	1.73E-06	0
Lake	2024	Agricultural - Misc - Sprayers	Aggregate	Aggregate	Gasoline	1.01E-03	5.64E-04	2.78E-02	4.55E-07	2.51E-04	1.90E-04	9.65E-06	0
Lake	2024	Agricultural - Misc - Sprayers	Aggregate	Aggregate	Diesel	3.96E-06	2.46E-05	1.33E-05	3.44E-10	8.97E-07	6.78E-07	5.57E-07	0
Lake	2024	Agricultural - Misc - Tillers	Aggregate	Aggregate	Gasoline	7.00E-03	3.94E-03	3.24E-01	5.18E-06	2.18E-05	1.65E-05	1.15E-04	0
Lake	2024	Agricultural - Misc - Tillers	Aggregate	Aggregate	Diesel	1.14E-07	8.05E-07	6.74E-07	1.43E-11	2.83E-08	2.14E-08	1.94E-08	0
Lake	2024	Agricultural - Nut Harvester	Aggregate	Aggregate	Diesel	1.54E-03	9.76E-03	8.36E-03	1.23E-05	6.17E-04	5.68E-04	1.35E+00	447
Lake	2024	Agricultural - Other Harvesters	Aggregate	Aggregate	Diesel	5.24E-04	3.95E-03	3.48E-03	5.24E-06	2.27E-04	2.09E-04	5.74E-01	190
Lake	2024	Agricultural - Sprayers/Spray rigs	Aggregate	Aggregate	Diesel	2.77E-03	2.01E-02	1.54E-02	2.29E-05	1.19E-03	1.10E-03	2.51E+00	830
Lake	2024	Agricultural - Swathers/Windrowers/Hay Conditioners	Aggregate	Aggregate	Diesel	2.23E-04	1.42E-03	1.34E-03	1.91E-06	9.32E-05	8.58E-05	2.09E-01	69
TOTAL AGRICULTURAL OFFROAD (tons/day)						0.065	0.274	0.735	0.000	0.018	0.016	39.29	
ESTIMATED UNINCORPORATED Lake County (tons/yr)						22.18	93.50	250.91	0.12	6.11	5.58	36.75	12,167
ESTIMATED UNINCORPORATED Lake County (lbs/day)						121.520	512.330	1374.859	0.681	33.492	30.579	73490	

AGRICULTURAL ACREAGE:	2020
Important Farmland in TOTAL Lake County	23,590
Important Farmland in UNINCORPORATED Lake County	22,062
Percentage of Important Farmland in UNINCORPORATED Lake County	94%

Source: DOC 2023

Construction and Mining													
Region	CalYr	VehClass	MdlYr	HP_Bin	Fuel	ROG_lpd	NOx_lpd	CO_lpd	SOx_lpd	PM10_lpd	PM2_5_lpd	CO2_lpd	CO2e_MTY
Lake	2024	Construction and Mining - Bore/Drill Rigs	Aggregate	Aggregate	Diesel	1.61E-04	1.45E-03	1.14E-03	3.13E-06	6.18E-05	5.68E-05	0.33	110
Lake	2024	Construction and Mining - Bucket	Aggregate	Aggregate	Diesel	3.21E-06	2.23E-05	2.74E-05	7.50E-08	1.06E-06	9.71E-07	0.01	3
Lake	2024	Construction and Mining - Compactor	Aggregate	Aggregate	Diesel	4.19E-06	3.23E-05	5.13E-05	1.22E-07	1.14E-06	1.04E-06	0.01	4
Lake	2024	Construction and Mining - Concrete Mixer	Aggregate	Aggregate	Diesel	4.09E-07	3.40E-06	4.50E-06	1.13E-08	9.92E-08	9.12E-08	0.00	0
Lake	2024	Construction and Mining - Concrete Pump	Aggregate	Aggregate	Diesel	4.65E-06	4.05E-05	4.57E-05	1.13E-07	1.37E-06	1.26E-06	0.01	4
Lake	2024	Construction and Mining - Crane less than 35ton	Aggregate	Aggregate	Diesel	2.63E-06	2.87E-05	3.12E-05	5.84E-08	1.25E-06	1.15E-06	0.01	2
Lake	2024	Construction and Mining - Cranes	Aggregate	Aggregate	Diesel	1.13E-04	1.14E-03	9.06E-04	2.88E-06	5.06E-05	4.66E-05	0.30	101
Lake	2024	Construction and Mining - Crawler Tractors	Aggregate	Aggregate	Diesel	3.82E-04	3.47E-03	3.00E-03	8.07E-06	1.60E-04	1.47E-04	0.85	282
Lake	2024	Construction and Mining - Crushing/Processing Equipment	Aggregate	Aggregate	Diesel	1.24E-05	7.36E-05	1.32E-04	4.41E-07	2.86E-06	2.63E-06	0.05	15
Lake	2024	Construction and Mining - Excavators	Aggregate	Aggregate	Diesel	1.13E-03	8.90E-03	1.02E-02	2.58E-05	3.48E-04	3.20E-04	2.73	903
Lake	2024	Construction and Mining - Graders	Aggregate	Aggregate	Diesel	1.72E-04	1.58E-03	1.15E-03	3.77E-06	7.26E-05	6.68E-05	0.40	132
Lake	2024	Construction and Mining - Hopper Tractor Trailer	Aggregate	Aggregate	Diesel	2.04E-07	6.99E-07	1.55E-06	7.46E-09	3.67E-08	3.38E-08	0.00	0
Lake	2024	Construction and Mining - Misc - Asphalt Pavers	Aggregate	Aggregate	Gasoline	3.88E-05	3.19E-05	1.50E-03	5.73E-08	1.33E-05	1.00E-05	0.00	1
Lake	2024	Construction and Mining - Misc - Bore/Drill Rigs	Aggregate	Aggregate	Gasoline	1.06E-05	1.31E-05	4.11E-04	3.63E-08	3.76E-06	2.83E-06	0.00	1
Lake	2024	Construction and Mining - Misc - Bore/Drill Rigs	Aggregate	Aggregate	Diesel	2.95E-06	1.86E-05	1.08E-05	2.67E-10	6.30E-07	4.76E-07	0.00	0
Lake	2024	Construction and Mining - Misc - Cement And Mortar Mixers	Aggregate	Aggregate	Gasoline	4.86E-04	3.05E-04	1.46E-02	2.37E-07	1.27E-04	9.62E-05	0.00	0
Lake	2024	Construction and Mining - Misc - Cement And Mortar Mixers	Aggregate	Aggregate	Diesel	3.62E-06	2.27E-05	1.76E-05	3.92E-10	7.97E-07	6.02E-07	0.00	0
Lake	2024	Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Gasoline	3.92E-04	2.82E-04	1.31E-02	2.93E-07	1.44E-04	1.09E-04	0.01	3
Lake	2024	Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Diesel	1.79E-06	1.34E-05	1.37E-05	2.03E-08	4.28E-07	3.75E-07	0.00	1
Lake	2024	Construction and Mining - Misc - Cranes	Aggregate	Aggregate	Gasoline	3.46E-06	8.53E-06	2.01E-04	2.87E-08	1.97E-07	1.49E-07	0.00	1
Lake	2024	Construction and Mining - Misc - Crushing/Proc. Equipment	Aggregate	Aggregate	Gasoline	2.69E-06	1.85E-06	9.42E-05	1.49E-09	1.09E-06	8.24E-07	0.00	0
Lake	2024	Construction and Mining - Misc - Dumpers/Tenders	Aggregate	Aggregate	Gasoline	5.12E-05	3.43E-05	1.38E-03	2.43E-08	1.41E-05	1.07E-05	0.00	0
Lake	2024	Construction and Mining - Misc - Dumpers/Tenders	Aggregate	Aggregate	Diesel	3.64E-07	2.30E-06	1.24E-06	3.16E-11	7.74E-08	5.85E-08	0.00	0
Lake	2024	Construction and Mining - Misc - Excavators	Aggregate	Aggregate	Diesel	2.60E-06	1.65E-05	8.89E-06	2.26E-10	5.53E-07	4.18E-07	0.00	0
Lake	2024	Construction and Mining - Misc - Other	Aggregate	Aggregate	Gasoline	1.70E-06	6.15E-06	1.60E-04	4.51E-08	3.26E-07	2.46E-07	0.00	2
Lake	2024	Construction and Mining - Misc - Other	Aggregate	Aggregate	Diesel	7.70E-06	4.83E-05	3.78E-05	8.40E-10	1.69E-06	1.27E-06	0.00	0
Lake	2024	Construction and Mining - Misc - Pavers	Aggregate	Aggregate	Diesel	6.86E-07	4.34E-06	2.34E-06	5.95E-11	1.46E-07	1.10E-07	0.00	0
Lake	2024	Construction and Mining - Misc - Paving Equipment	Aggregate	Aggregate	Gasoline	8.42E-04	5.72E-04	2.51E-02	4.39E-07	2.50E-04	1.89E-04	0.00	1
Lake	2024	Construction and Mining - Misc - Paving Equipment	Aggregate	Aggregate	Diesel	1.17E-06	7.36E-06	3.98E-06	1.01E-10	2.48E-07	1.87E-07	0.00	0
Lake	2024	Construction and Mining - Misc - Plate Compactors	Aggregate	Aggregate	Gasoline	3.50E-04	2.22E-04	9.87E-03	1.61E-07	8.46E-05	6.41E-05	0.00	0
Lake	2024	Construction and Mining - Misc - Plate Compactors	Aggregate	Aggregate	Diesel	2.48E-06	1.55E-05	1.30E-05	2.82E-10	5.45E-07	4.12E-07	0.00	0
Lake	2024	Construction and Mining - Misc - Rollers	Aggregate	Aggregate	Gasoline	1.79E-04	1.45E-04	6.35E-03	1.89E-07	6.04E-05	4.58E-05	0.01	3
Lake	2024	Construction and Mining - Misc - Rollers	Aggregate	Aggregate	Diesel	1.71E-05	1.08E-04	7.50E-05	1.73E-09	3.71E-06	2.80E-06	0.00	0
Lake	2024	Construction and Mining - Misc - Rough Terrain Forklifts	Aggregate	Aggregate	Gasoline	2.16E-05	6.08E-05	1.08E-03	2.00E-07	1.43E-06	1.08E-06	0.02	7
Lake	2024	Construction and Mining - Misc - Rubber Tired Loaders	Aggregate	Aggregate	Gasoline	1.23E-05	3.13E-05	7.01E-04	1.05E-07	7.42E-07	5.61E-07	0.01	4
Lake	2024	Construction and Mining - Misc - Rubber Tired Loaders	Aggregate	Aggregate	Diesel	4.67E-07	2.95E-06	1.59E-06	4.05E-11	9.92E-08	7.50E-08	0.00	0
Lake	2024	Construction and Mining - Misc - Signal Boards	Aggregate	Aggregate	Gasoline	8.39E-06	6.07E-06	2.84E-04	4.51E-09	3.27E-06	2.46E-06	0.00	0
Lake	2024	Construction and Mining - Misc - Signal Boards	Aggregate	Aggregate	Diesel	3.93E-05	2.46E-04	2.08E-04	1.34E-08	8.67E-06	6.57E-06	0.00	0
Lake	2024	Construction and Mining - Misc - Skid Steer Loaders	Aggregate	Aggregate	Gasoline	2.72E-04	2.07E-04	9.14E-03	4.32E-07	8.68E-05	6.57E-05	0.03	10
Lake	2024	Construction and Mining - Misc - Skid Steer Loaders	Aggregate	Aggregate	Diesel	1.35E-04	8.52E-04	4.59E-04	1.17E-08	2.91E-05	2.20E-05	0.00	0
Lake	2024	Construction and Mining - Misc - Surfacing Equipment	Aggregate	Aggregate	Gasoline	4.53E-04	3.21E-04	1.19E-02	1.94E-07	1.32E-04	9.96E-05	0.00	0
Lake	2024	Construction and Mining - Misc - Tampers/Rammers	Aggregate	Aggregate	Gasoline	4.06E-05	3.20E-05	1.56E-03	2.52E-08	2.21E-05	1.67E-05	0.00	0
Lake	2024	Construction and Mining - Misc - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Gasoline	5.52E-06	1.55E-05	4.27E-04	6.65E-08	4.80E-07	3.63E-07	0.01	2
Lake	2024	Construction and Mining - Misc - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	1.25E-05	7.87E-05	4.25E-05	1.08E-09	2.65E-06	2.00E-06	0.00	0
Lake	2024	Construction and Mining - Misc - Trenchers	Aggregate	Aggregate	Gasoline	3.21E-04	2.56E-04	1.16E-02	3.59E-07	1.11E-04	8.36E-05	0.02	6
Lake	2024	Construction and Mining - Misc - Trenchers	Aggregate	Aggregate	Diesel	1.57E-05	9.89E-05	5.99E-05	1.46E-09	3.35E-06	2.54E-06	0.00	0
Lake	2024	Construction and Mining - Nurse Rig Other	Aggregate	Aggregate	Diesel	3.76E-08	3.33E-07	4.15E-07	6.68E-10	2.52E-08	2.32E-08	0.00	0
Lake	2024	Construction and Mining - Off-Highway Tractors	Aggregate	Aggregate	Diesel	2.58E-04	1.68E-03	2.07E-03	4.59E-06	8.21E-05	7.55E-05	0.48	161
Lake	2024	Construction and Mining - Off-Highway Trucks	Aggregate	Aggregate	Diesel	4.39E-04	3.78E-03	2.61E-03	1.07E-05	1.37E-04	1.26E-04	1.13	374
Lake	2024	Construction and Mining - Other Construction Equipment	Aggregate	Aggregate	Diesel	2.27E-04	2.11E-03	1.85E-03	5.29E-06	8.77E-05	8.07E-05	0.56	185
Lake	2024	Construction and Mining - Other Material Handling Equipment	Aggregate	Aggregate	Diesel	6.96E-05	6.25E-04	5.64E-04	1.64E-06	2.64E-05	2.43E-05	0.17	57
Lake	2024	Construction and Mining - Pavers	Aggregate	Aggregate	Diesel	8.13E-05	6.70E-04	6.99E-04	1.66E-06	2.92E-05	2.69E-05	0.18	58

Lake	2024 Construction and Mining - Paving Equipment	Aggregate	Aggregate	Diesel	7.34E-05	5.42E-04	7.12E-04	1.85E-06	2.38E-05	2.19E-05	0.19	64
Lake	2024 Construction and Mining - Rollers	Aggregate	Aggregate	Diesel	2.63E-04	2.00E-03	2.63E-03	4.39E-06	9.28E-05	8.54E-05	0.46	153
Lake	2024 Construction and Mining - Rough Terrain Forklifts	Aggregate	Aggregate	Diesel	2.10E-04	1.98E-03	3.25E-03	5.45E-06	7.29E-05	6.71E-05	0.58	191
Lake	2024 Construction and Mining - Rubber Tired Dozers	Aggregate	Aggregate	Diesel	5.02E-05	4.48E-04	3.98E-04	9.28E-07	2.18E-05	2.00E-05	0.10	32
Lake	2024 Construction and Mining - Rubber Tired Loaders	Aggregate	Aggregate	Diesel	8.43E-04	6.43E-03	6.41E-03	1.88E-05	2.83E-04	2.60E-04	1.98	657
Lake	2024 Construction and Mining - Scrapers	Aggregate	Aggregate	Diesel	4.15E-04	4.12E-03	3.49E-03	9.51E-06	1.82E-04	1.68E-04	1.00	333
Lake	2024 Construction and Mining - Skid Steer Loaders	Aggregate	Aggregate	Diesel	4.81E-04	4.68E-03	5.52E-03	8.96E-06	1.67E-04	1.53E-04	0.95	313
Lake	2024 Construction and Mining - Spray Truck	Aggregate	Aggregate	Diesel	5.74E-06	4.36E-05	4.93E-05	1.08E-07	2.15E-06	1.98E-06	0.01	4
Lake	2024 Construction and Mining - Spreader Tractor Trailer	Aggregate	Aggregate	Diesel	5.88E-07	5.39E-06	3.11E-06	1.36E-08	1.74E-07	1.60E-07	0.00	0
Lake	2024 Construction and Mining - Spreader Truck	Aggregate	Aggregate	Diesel	3.40E-06	2.28E-05	2.93E-05	8.52E-08	1.19E-06	1.10E-06	0.01	3
Lake	2024 Construction and Mining - Surfacing Equipment	Aggregate	Aggregate	Diesel	3.47E-05	2.76E-04	2.39E-04	8.72E-07	1.17E-05	1.08E-05	0.09	30
Lake	2024 Construction and Mining - Tank Truck	Aggregate	Aggregate	Diesel	7.66E-06	4.91E-05	4.26E-05	1.87E-07	2.06E-06	1.90E-06	0.02	7
Lake	2024 Construction and Mining - Tanker Truck Trailer	Aggregate	Aggregate	Diesel	5.88E-07	3.50E-06	6.78E-06	1.44E-08	1.62E-07	1.49E-07	0.00	1
Lake	2024 Construction and Mining - Telescopic Handler	Aggregate	Aggregate	Diesel	1.10E-05	1.20E-04	2.09E-04	3.75E-07	3.21E-06	2.96E-06	0.04	13
Lake	2024 Construction and Mining - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	1.37E-03	1.12E-02	1.36E-02	2.52E-05	5.64E-04	5.18E-04	2.66	882
Lake	2024 Construction and Mining - Trenchers	Aggregate	Aggregate	Diesel	6.28E-05	5.11E-04	4.34E-04	8.75E-07	2.41E-05	2.22E-05	0.09	31
Lake	2024 Construction and Mining - Vacuum Truck	Aggregate	Aggregate	Diesel	1.33E-05	1.12E-04	9.60E-05	2.81E-07	4.64E-06	4.27E-06	0.03	10
Lake	2024 Construction and Mining - Water Truck	Aggregate	Aggregate	Diesel	3.98E-05	3.36E-04	2.23E-04	8.34E-07	1.47E-05	1.35E-05	0.09	29
TOTAL CONSTRUCTION OFFROAD (tons/day)					1.07E-02	6.25E-02	1.72E-01	1.50E-04	3.64E-03	3.17E-03	1.57E+01	
ESTIMATED Unincorporated Lake County (tons/yr)					3.38	19.79	54.52	0.05	1.15	1.00	4956.56	4,497
ESTIMATED Unincorporated Lake County (lbs/day)					19	108	299	0	6	5	9913118	

TOTAL PERMITS:	2020	2021	2022	2023	2024	Average
Housing Permits in Lake County	104	81	151	76	114	105
Housing Permits in the UNINCORPORATED Lake County	83	66	143	75	90	91
% Attributable to Unincorporated County	80%	81%	95%	99%	79%	87%

Source: HUD 2025

**Industrial and Light Commercial**

Region	CalYr	VehClass	MdlYr	HP_Bin	Fuel	ROG_tpd	NOx_tpd	CO_tpd	SOx_tpd	PM10_tpd	PM2_5_tpd	CO2_tpd	CO2e_MTY
Lake	2024	Industrial - Aerial Lifts	Aggregate	Aggregate	Diesel	9.90E-06	1.24E-04	1.45E-04	2.44E-07	3.33E-06	3.07E-06	0.03	9
Lake	2024	Industrial - Boom	Aggregate	Aggregate	Diesel	1.13E-05	1.28E-04	1.53E-04	2.42E-07	2.64E-06	2.43E-06	0.03	8
Lake	2024	Industrial - Forklifts	Aggregate	Aggregate	Diesel	5.16E-05	4.70E-04	6.42E-04	1.08E-06	1.89E-05	1.73E-05	0.11	38
Lake	2024	Industrial - Garbage Refuse	Aggregate	Aggregate	Diesel	3.58E-07	2.54E-06	2.46E-06	1.17E-08	8.71E-08	8.02E-08	0.00	0
Lake	2024	Industrial - Garbage Transfer	Aggregate	Aggregate	Diesel	6.69E-08	3.36E-07	4.46E-07	2.12E-09	1.42E-08	1.31E-08	0.00	0
Lake	2024	Industrial - Misc - Aerial Lifts	Aggregate	Aggregate	Gasoline	3.43E-05	3.15E-05	1.23E-03	1.00E-07	9.08E-06	6.86E-06	0.01	3
Lake	2024	Industrial - Misc - Aerial Lifts	Aggregate	Aggregate	Diesel	1.79E-06	1.13E-05	7.26E-06	1.72E-10	3.98E-07	3.01E-07	0.00	0
Lake	2024	Industrial - Misc - Aerial Lifts	Aggregate	Aggregate	Nat Gas	4.30E-07	3.35E-06	1.22E-04	2.60E-10	3.28E-07	2.48E-07	0.00	0
Lake	2024	Industrial - Misc - Forklifts	Aggregate	Aggregate	Gasoline	2.81E-04	1.29E-03	3.14E-02	2.78E-06	1.93E-05	1.46E-05	0.28	92
Lake	2024	Industrial - Misc - Forklifts	Aggregate	Aggregate	Nat Gas	7.96E-08	1.94E-03	1.80E-02	2.85E-11	3.95E-05	2.95E-08	0.44	147
Lake	2024	Industrial - Misc - Other General Industrial Equipment	Aggregate	Aggregate	Gasoline	1.06E-05	1.69E-05	8.68E-04	4.95E-08	2.87E-07	2.17E-07	0.00	1
Lake	2024	Industrial - Misc - Other General Industrial Equipment	Aggregate	Aggregate	Diesel	1.37E-06	8.92E-06	5.56E-06	1.32E-10	3.04E-07	2.30E-07	0.00	0
Lake	2024	Industrial - Misc - Other Material Handling Equipment	Aggregate	Aggregate	Gasoline	1.82E-06	9.24E-06	1.09E-04	2.20E-08	1.58E-07	1.19E-07	0.00	1
Lake	2024	Industrial - Misc - Sweepers/Scrubbers	Aggregate	Aggregate	Gasoline	1.68E-05	5.16E-05	1.44E-03	1.76E-07	1.12E-06	8.45E-07	0.02	5
Lake	2024	Industrial - Misc - Sweepers/Scrubbers	Aggregate	Aggregate	Diesel	3.49E-07	2.31E-06	1.54E-06	3.55E-11	7.92E-08	5.98E-08	0.00	0
Lake	2024	Industrial - Mower	Aggregate	Aggregate	Diesel	8.99E-06	7.80E-05	8.97E-05	1.32E-07	2.95E-06	2.71E-06	0.01	5
Lake	2024	Industrial - Other General Industrial Equipment	Aggregate	Aggregate	Diesel	1.84E-05	1.50E-04	1.35E-04	3.19E-07	6.68E-06	6.15E-06	0.03	11
Lake	2024	Industrial - Other Truck	Aggregate	Aggregate	Diesel	8.17E-06	5.56E-05	5.43E-05	1.94E-07	2.28E-06	2.09E-06	0.02	7
Lake	2024	Industrial - Railcars or Track Cars	Aggregate	Aggregate	Diesel	5.73E-07	3.99E-06	5.65E-06	1.50E-08	1.62E-07	1.49E-07	0.00	1
Lake	2024	Industrial - Sweepers/Scrubbers	Aggregate	Aggregate	Diesel	4.01E-06	3.50E-05	3.71E-05	6.39E-08	1.59E-06	1.46E-06	0.01	2
Lake	2024	Industrial - Tow Tractor	Aggregate	Aggregate	Diesel	1.65E-08	2.14E-07	8.30E-08	4.20E-10	5.69E-09	5.23E-09	0.00	0
Lake	2024	Light Commercial - Misc - Air Compressors	Aggregate	Aggregate	Gasoline	7.94E-03	4.85E-03	4.89E-01	1.76E-05	2.81E-05	2.13E-05	1.06	350
Lake	2024	Light Commercial - Misc - Air Compressors	Aggregate	Aggregate	Diesel	5.43E-05	3.63E-04	4.32E-04	6.68E-07	1.26E-05	1.14E-05	0.05	18
Lake	2024	Light Commercial - Misc - Air Compressors	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0
Lake	2024	Light Commercial - Misc - Gas Compressors	Aggregate	Aggregate	Nat Gas	0.00E+00	1.26E-03	1.48E-02	0.00E+00	0.00E+00	0.00E+00	0.40	133
Lake	2024	Light Commercial - Misc - Generator Sets	Aggregate	Aggregate	Gasoline	2.51E-02	9.31E-03	7.39E-01	2.98E-05	6.80E-05	5.14E-05	1.83	606
Lake	2024	Light Commercial - Misc - Generator Sets	Aggregate	Aggregate	Diesel	2.46E-04	1.87E-03	1.56E-03	3.00E-06	6.35E-05	5.21E-05	0.27	90
Lake	2024	Light Commercial - Misc - Generator Sets	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0
Lake	2024	Light Commercial - Misc - Generator Sets	Aggregate	Aggregate	Nat Gas	0.00E+00	3.99E-05	3.69E-04	0.00E+00	0.00E+00	0.00E+00	0.01	4
Lake	2024	Light Commercial - Misc - Pressure Washers	Aggregate	Aggregate	Gasoline	5.85E-03	2.58E-03	3.48E-01	1.20E-05	1.19E-05	8.97E-06	0.69	229
Lake	2024	Light Commercial - Misc - Pressure Washers	Aggregate	Aggregate	Diesel	1.14E-06	9.60E-06	7.89E-06	1.55E-08	3.15E-07	2.54E-07	0.00	0
Lake	2024	Light Commercial - Misc - Pressure Washers	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0
Lake	2024	Light Commercial - Misc - Pumps	Aggregate	Aggregate	Gasoline	1.56E-03	7.83E-04	7.41E-02	3.77E-06	1.15E-05	8.69E-06	0.27	91
Lake	2024	Light Commercial - Misc - Pumps	Aggregate	Aggregate	Diesel	1.43E-04	1.02E-03	9.06E-04	1.67E-06	3.55E-05	2.94E-05	0.15	49
Lake	2024	Light Commercial - Misc - Pumps	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0
Lake	2024	Light Commercial - Misc - Welders	Aggregate	Aggregate	Gasoline	3.64E-03	1.88E-03	2.08E-01	7.77E-06	2.04E-05	1.54E-05	0.48	157
Lake	2024	Light Commercial - Misc - Welders	Aggregate	Aggregate	Diesel	2.78E-04	1.93E-03	2.05E-03	3.43E-06	6.72E-05	5.90E-05	0.29	95
Lake	2024	Light Commercial - Misc - Welders	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0
TOTAL LIGHT COMMERCIAL + INDUSTRIAL OFFROAD (tons/day)						0.045	0.030	1.933	0.000	0.000	0.000	6.50	
ESTIMATED Unincorporated Lake County (tons/yr)						12.04	8.06	514.09	0.02	0.11	0.08	4.74	1,568
ESTIMATED Unincorporated Lake County(lbs/day)						66	44	2817	0	1	0	9471	

EMPLOYMENT:	2024
Employment in Lake County	25,970
Employment in Unincorporated Lake County	18,920
Percent in the City	73%

Source: EDD 2025

Note: Lake County employment estimates reflect the annual average in 2024.

Lawn and Garden													
Region	CalYr	VehClass	MdlYr	HP_Bin	Fuel	ROG_tpd	NOx_tpd	CO_tpd	SOx_tpd	PM10_tpd	PM2_5_tpd	CO2_tpd	CO2e_MTY
Lake	2024	Lawn and Garden - Misc - Chainsaws	Aggregate	Aggregate	Gasoline	1.81E-02	6.17E-04	5.35E-02	4.12E-06	2.25E-04	1.70E-04	2.85E-01	95
Lake	2024	Lawn and Garden - Misc - Chainsaws	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2024	Lawn and Garden - Misc - Chainsaws Preempt	Aggregate	Aggregate	Gasoline	1.73E-02	6.29E-04	3.05E-02	2.58E-06	1.28E-04	9.70E-05	1.62E-01	54
Lake	2024	Lawn and Garden - Misc - Chainsaws Preempt	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2024	Lawn and Garden - Misc - Chippers/Stump Grinders	Aggregate	Aggregate	Gasoline	2.91E-05	1.02E-05	1.36E-03	4.97E-08	5.31E-08	4.02E-08	2.91E-03	1
Lake	2024	Lawn and Garden - Misc - Chippers/Stump Grinders	Aggregate	Aggregate	Diesel	3.83E-07	2.42E-06	1.31E-06	3.04E-09	8.14E-08	6.15E-08	3.18E-04	0
Lake	2024	Lawn and Garden - Misc - Chippers/Stump Grinders	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2024	Lawn and Garden - Misc - Lawn Mowers	Aggregate	Aggregate	Gasoline	5.24E-03	3.15E-03	2.51E-01	1.06E-05	5.51E-05	4.17E-05	6.49E-01	215
Lake	2024	Lawn and Garden - Misc - Lawn Mowers	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2024	Lawn and Garden - Misc - Leaf Blowers/Vacuums	Aggregate	Aggregate	Gasoline	3.00E-02	1.08E-03	1.51E-01	1.04E-05	4.36E-04	3.29E-04	7.57E-01	251
Lake	2024	Lawn and Garden - Misc - Leaf Blowers/Vacuums	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2024	Lawn and Garden - Misc - Other	Aggregate	Aggregate	Gasoline	1.07E-04	4.37E-05	6.19E-03	2.33E-07	2.95E-07	2.23E-07	1.41E-02	5
Lake	2024	Lawn and Garden - Misc - Other	Aggregate	Aggregate	Diesel	1.69E-07	1.17E-06	9.33E-07	1.53E-09	4.09E-08	3.09E-08	1.60E-04	0
Lake	2024	Lawn and Garden - Misc - Rear Engine Riding Mowers	Aggregate	Aggregate	Gasoline	9.12E-03	4.72E-03	5.11E-01	1.76E-05	3.66E-05	2.77E-05	1.01E+00	334
Lake	2024	Lawn and Garden - Misc - Rear Engine Riding Mowers	Aggregate	Aggregate	Diesel	1.49E-04	9.66E-04	5.99E-04	1.23E-06	3.29E-05	2.48E-05	1.28E-01	42
Lake	2024	Lawn and Garden - Misc - Rear Engine Riding Mowers	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2024	Lawn and Garden - Misc - Snowblowers	Aggregate	Aggregate	Gasoline	4.92E-05	2.33E-05	3.33E-03	1.12E-07	1.27E-07	9.59E-08	5.87E-03	2
Lake	2024	Lawn and Garden - Misc - Snowblowers	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2024	Lawn and Garden - Misc - Tillers	Aggregate	Aggregate	Gasoline	2.56E-04	4.04E-05	4.82E-03	2.12E-07	4.89E-07	3.70E-07	1.30E-02	4
Lake	2024	Lawn and Garden - Misc - Tillers	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2024	Lawn and Garden - Misc - Trimmers/Edgers/Brush Cutters	Aggregate	Aggregate	Gasoline	1.89E-02	1.19E-03	1.15E-01	7.71E-06	1.63E-04	1.23E-04	5.63E-01	186
Lake	2024	Lawn and Garden - Misc - Trimmers/Edgers/Brush Cutters	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2024	Lawn and Garden - Misc - Wood Splitters	Aggregate	Aggregate	Gasoline	1.06E-03	5.11E-04	5.02E-02	1.94E-06	4.59E-06	3.47E-06	1.18E-01	39
TOTAL LAWN & GARDEN (tons/day)						0.10	0.01	1.18	0.00	0.00	0.00	3.71	
ESTIMATED Unincorporated Lake County (tons/yr)						24.98	3.23	293.27	0.01	0.27	0.20	922.97	837
ESTIMATED Unincorporated Lake County (lbs/day)						137	18	1607	0	1	1	5057	

POPULATION	Clearlake	Lakeport	Unincorporated	2024
Population of Lake County (2024)	16,367	5,069	45,957	67,393
Population of UNINCORPORATED Lake County (2024)				45,957
Percent in the unincorporated county				68%

Source: DOF 2024

**Unincorporated Lake County County OFFROAD2021: Year 2050**

Source: <https://arb.ca.gov/emfac/offroad/emissions-inventory/bf80b1b08988dd783f3c965737a4fd5dcb20d2c>

Construction includes: Over 25 horsepower, self-propelled, diesel equipment only subjected to In-Use Regulation; AND Under 25 horsepower equipment not subject to the In-Use Regulation

Model Output: Off-Road Web Query (v1.1.0) Emissions Inventory

Region Type: County

Region: Lake

Calendar Year: 2050

Scenario: All Adopted Rules - Exhaust

Vehicle Classification: Off-Road Web Query Equipment Types

Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Agriculture													
Region	CalYr	VehClass	MdlYr	HP_Bin	Fuel	ROG_tpd	NOx_tpd	CO_tpd	SOx_tpd	PM10_tpd	PM2_5_tpd	CO2_tpd	CO2e_MTY
Lake	2050	Agricultural - Agricultural Tractors	Aggregate	Aggregate	Gasoline	5.07E-06	4.55E-06	1.01E-04	1.85E-08	2.72E-07	2.51E-07	0.00	1
Lake	2050	Agricultural - Agricultural Tractors	Aggregate	Aggregate	Diesel	1.30E-02	6.16E-02	1.40E-01	2.33E-04	2.68E-03	2.47E-03	25.48	8,436
Lake	2050	Agricultural - ATVs	Aggregate	Aggregate	Gasoline	5.31E-03	3.04E-03	7.90E-02	9.90E-06	2.72E-04	2.50E-04	1.10	364
Lake	2050	Agricultural - ATVs	Aggregate	Aggregate	Diesel	2.48E-04	2.79E-03	3.39E-03	4.99E-06	4.22E-05	3.89E-05	0.55	181
Lake	2050	Agricultural - ATVs	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0
Lake	2050	Agricultural - Bale Wagons (Self Propelled)	Aggregate	Aggregate	Diesel	1.40E-05	4.88E-05	2.39E-04	3.98E-07	2.73E-06	2.51E-06	0.04	14
Lake	2050	Agricultural - Balers (Self Propelled)	Aggregate	Aggregate	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0
Lake	2050	Agricultural - Combine Harvesters	Aggregate	Aggregate	Diesel	7.77E-05	2.17E-04	6.89E-04	2.87E-06	1.16E-05	1.07E-05	0.31	104
Lake	2050	Agricultural - Construction Equipment	Aggregate	Aggregate	Diesel	1.56E-04	4.55E-04	3.18E-03	5.57E-06	2.79E-05	2.57E-05	0.61	202
Lake	2050	Agricultural - Cotton Pickers	Aggregate	Aggregate	Diesel	2.13E-06	5.45E-06	1.68E-05	8.12E-08	2.90E-07	2.67E-07	0.01	3
Lake	2050	Agricultural - Forage & Silage Harvesters	Aggregate	Aggregate	Diesel	2.33E-05	1.28E-04	1.52E-04	6.82E-07	4.70E-06	4.33E-06	0.07	25
Lake	2050	Agricultural - Forklifts	Aggregate	Aggregate	Diesel	2.22E-04	2.12E-03	3.22E-03	4.94E-06	3.10E-05	2.85E-05	0.54	179
Lake	2050	Agricultural - Hay Squeeze/Stack retriever	Aggregate	Aggregate	Diesel	9.23E-06	2.41E-05	8.69E-05	3.48E-07	1.25E-06	1.15E-06	0.04	13
Lake	2050	Agricultural - Misc - 2-Wheel Tractors	Aggregate	Aggregate	Gasoline	6.78E-04	4.58E-04	2.05E-02	3.31E-07	2.05E-04	1.55E-04	0.00	0
Lake	2050	Agricultural - Misc - Hydro Power Units	Aggregate	Aggregate	Gasoline	4.76E-04	3.22E-04	1.48E-02	2.36E-07	1.62E-04	1.22E-04	0.00	0
Lake	2050	Agricultural - Misc - Hydro Power Units	Aggregate	Aggregate	Diesel	1.16E-05	7.30E-05	4.42E-05	1.09E-09	2.48E-06	1.87E-06	0.00	0
Lake	2050	Agricultural - Misc - Mowers	Aggregate	Aggregate	Gasoline	6.06E-04	4.10E-04	1.78E-02	2.87E-07	2.06E-04	1.55E-04	0.00	0
Lake	2050	Agricultural - Misc - Other	Aggregate	Aggregate	Gasoline	3.56E-05	2.23E-05	1.05E-03	1.71E-08	9.28E-06	7.01E-06	0.00	0
Lake	2050	Agricultural - Misc - Other	Aggregate	Aggregate	Diesel	1.32E-05	8.34E-05	5.02E-05	1.24E-09	2.83E-06	2.14E-06	0.00	0
Lake	2050	Agricultural - Misc - Sprayers	Aggregate	Aggregate	Gasoline	1.14E-03	6.93E-04	3.27E-02	5.31E-07	3.00E-04	2.26E-04	0.00	0
Lake	2050	Agricultural - Misc - Sprayers	Aggregate	Aggregate	Diesel	4.09E-06	2.58E-05	1.39E-05	3.59E-10	8.68E-07	6.56E-07	0.00	0
Lake	2050	Agricultural - Misc - Tillers	Aggregate	Aggregate	Gasoline	4.86E-06	2.96E-06	2.06E-04	3.34E-09	7.48E-09	5.66E-09	0.00	0
Lake	2050	Agricultural - Misc - Tillers	Aggregate	Aggregate	Diesel	1.22E-07	8.55E-07	7.16E-07	1.52E-11	3.01E-08	2.27E-08	0.00	0
Lake	2050	Agricultural - Nut Harvester	Aggregate	Aggregate	Diesel	4.87E-04	2.47E-03	7.33E-03	1.18E-05	1.22E-04	1.12E-04	1.30	429
Lake	2050	Agricultural - Other Harvesters	Aggregate	Aggregate	Diesel	1.35E-04	7.25E-04	2.54E-03	4.06E-06	2.85E-05	2.62E-05	0.44	147
Lake	2050	Agricultural - Sprayers/Spray rigs	Aggregate	Aggregate	Diesel	9.37E-04	7.27E-03	1.02E-02	1.74E-05	1.76E-04	1.62E-04	1.90	630
Lake	2050	Agricultural - Swathers/Windrowers/Hay Conditioners	Aggregate	Aggregate	Diesel	0.000	0.000	0.001	0.000	0.000	0.000	0.15	50
TOTAL AGRICULTURAL OFFROAD (tons/day)						0.024	0.083	0.339	0.000	0.004	0.004	32.55	
ESTIMATED Unincorporated Lake County (tons/yr)						8.03	28.34	115.30	0.10	1.46	1.30	11081.24	10,053
ESTIMATED Unincorporated Lake County (lbs/day)						44.020	155.262	631.773	0.557	8.019	7.105	22162488	

AGRICULTURAL ACREAGE:	2050
Important Farmland in Lake County	22,710
Important Farmland in UNINCORPORATED Lake County	21,182
Percent in the unincorporated County	93%

Source: DOC 2023

Note: Important Farmland acreage at 2050 accounts for reduction in farmland in the unincorporated county from buildout of the proposed General Plan. Farmland in incorporated cities is assumed to remain the same as under existing conditions in 2050.

**Construction and Mining**

Region	CalYr	VehClass	MdlYr	HP_Bin	Fuel	ROG_tpd	NOx_tpd	CO_tpd	SOx_tpd	PM10_tpd	PM2_5_tpd	CO2_tpd	CO2e_MTY
Lake	2050	Construction and Mining - Bore/Drill Rigs	Aggregate	Aggregate	Diesel	1.10E-04	2.55E-04	1.06E-03	3.17E-06	1.05E-05	9.64E-06	3.35E-01	111
Lake	2050	Construction and Mining - Bucket	Aggregate	Aggregate	Diesel	2.61E-06	7.10E-06	2.72E-05	7.23E-08	2.42E-07	2.23E-07	7.63E-03	3
Lake	2050	Construction and Mining - Compactor	Aggregate	Aggregate	Diesel	3.86E-06	1.07E-05	5.21E-05	1.17E-07	3.53E-07	3.25E-07	1.24E-02	4
Lake	2050	Construction and Mining - Concrete Mixer	Aggregate	Aggregate	Diesel	3.99E-07	1.37E-06	4.55E-06	1.09E-08	3.52E-08	3.24E-08	1.16E-03	0
Lake	2050	Construction and Mining - Concrete Pump	Aggregate	Aggregate	Diesel	3.67E-06	5.44E-06	4.63E-05	1.11E-07	2.99E-07	2.75E-07	1.17E-02	4
Lake	2050	Construction and Mining - Crane less than 35ton	Aggregate	Aggregate	Diesel	1.41E-06	6.10E-06	2.61E-05	5.45E-08	1.73E-07	1.59E-07	5.75E-03	2
Lake	2050	Construction and Mining - Cranes	Aggregate	Aggregate	Diesel	6.42E-05	1.55E-04	6.85E-04	2.78E-06	7.98E-06	7.34E-06	2.93E-01	97
Lake	2050	Construction and Mining - Crawler Tractors	Aggregate	Aggregate	Diesel	2.44E-04	5.40E-04	2.66E-03	8.27E-06	2.50E-05	2.30E-05	8.73E-01	289
Lake	2050	Construction and Mining - Crushing/Processing Equipment	Aggregate	Aggregate	Diesel	1.31E-05	3.43E-05	1.31E-04	4.16E-07	1.23E-06	1.13E-06	4.39E-02	15
Lake	2050	Construction and Mining - Excavators	Aggregate	Aggregate	Diesel	9.41E-04	2.94E-03	1.02E-02	2.52E-05	8.13E-05	7.48E-05	2.66E+00	882
Lake	2050	Construction and Mining - Graders	Aggregate	Aggregate	Diesel	1.04E-04	1.75E-04	1.13E-03	3.75E-06	1.06E-05	9.75E-06	3.96E-01	131
Lake	2050	Construction and Mining - Hopper Tractor Trailer	Aggregate	Aggregate	Diesel	2.36E-07	3.23E-07	1.54E-06	7.05E-09	2.16E-08	1.99E-08	7.44E-04	0
Lake	2050	Construction and Mining - Misc - Asphalt Pavers	Aggregate	Aggregate	Gasoline	4.26E-05	3.29E-05	1.65E-03	5.97E-08	1.50E-05	1.13E-05	3.60E-03	1
Lake	2050	Construction and Mining - Misc - Bore/Drill Rigs	Aggregate	Aggregate	Gasoline	1.07E-05	9.97E-06	4.34E-04	3.68E-08	4.07E-06	3.08E-06	3.18E-03	1
Lake	2050	Construction and Mining - Misc - Bore/Drill Rigs	Aggregate	Aggregate	Diesel	3.58E-06	2.26E-05	1.31E-05	3.24E-10	7.63E-07	5.77E-07	5.24E-08	0
Lake	2050	Construction and Mining - Misc - Cement And Mortar Mixers	Aggregate	Aggregate	Gasoline	5.41E-04	3.50E-04	1.65E-02	2.67E-07	1.45E-04	1.10E-04	6.02E-07	0
Lake	2050	Construction and Mining - Misc - Cement And Mortar Mixers	Aggregate	Aggregate	Diesel	4.39E-06	2.76E-05	2.14E-05	4.76E-10	9.60E-07	7.25E-07	6.59E-08	0
Lake	2050	Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Gasoline	4.48E-04	3.20E-04	1.48E-02	3.20E-07	1.64E-04	1.24E-04	8.49E-03	3
Lake	2050	Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Diesel	1.61E-06	1.39E-05	1.59E-05	2.46E-08	1.71E-07	1.38E-07	1.80E-03	1
Lake	2050	Construction and Mining - Misc - Cranes	Aggregate	Aggregate	Gasoline	2.43E-06	5.59E-06	2.06E-04	2.87E-08	1.97E-07	1.49E-07	2.83E-03	1
Lake	2050	Construction and Mining - Misc - Crushing/Proc. Equipment	Aggregate	Aggregate	Gasoline	2.99E-06	2.06E-06	1.05E-04	1.66E-09	1.21E-06	9.16E-07	3.75E-09	0
Lake	2050	Construction and Mining - Misc - Dumpers/Tenders	Aggregate	Aggregate	Gasoline	5.85E-05	3.92E-05	1.57E-03	2.73E-08	1.60E-05	1.21E-05	1.84E-04	0
Lake	2050	Construction and Mining - Misc - Dumpers/Tenders	Aggregate	Aggregate	Diesel	4.44E-07	2.80E-06	1.51E-06	3.85E-11	9.43E-08	7.12E-08	6.47E-09	0
Lake	2050	Construction and Mining - Misc - Excavators	Aggregate	Aggregate	Diesel	3.16E-06	2.00E-05	1.08E-05	2.74E-10	6.72E-07	5.08E-07	4.62E-08	0
Lake	2050	Construction and Mining - Misc - Other	Aggregate	Aggregate	Gasoline	1.70E-06	6.15E-06	1.60E-04	4.51E-08	3.26E-07	2.46E-07	4.54E-03	2
Lake	2050	Construction and Mining - Misc - Other	Aggregate	Aggregate	Diesel	9.48E-06	5.95E-05	4.65E-05	1.03E-09	2.07E-06	1.57E-06	1.43E-07	0
Lake	2050	Construction and Mining - Misc - Pavers	Aggregate	Aggregate	Diesel	8.40E-07	5.31E-06	2.87E-06	7.29E-11	1.79E-07	1.35E-07	1.23E-08	0
Lake	2050	Construction and Mining - Misc - Paving Equipment	Aggregate	Aggregate	Gasoline	9.60E-04	6.54E-04	2.85E-02	4.94E-07	2.83E-04	2.16E-04	3.24E-03	1
Lake	2050	Construction and Mining - Misc - Paving Equipment	Aggregate	Aggregate	Diesel	1.36E-06	8.59E-06	4.64E-06	1.18E-10	2.89E-07	2.18E-07	1.98E-08	0
Lake	2050	Construction and Mining - Misc - Plate Compactors	Aggregate	Aggregate	Gasoline	3.97E-04	2.53E-04	1.12E-02	1.83E-07	9.65E-05	7.28E-05	4.11E-07	0
Lake	2050	Construction and Mining - Misc - Plate Compactors	Aggregate	Aggregate	Diesel	3.00E-06	1.88E-05	1.58E-05	3.42E-10	6.62E-07	5.00E-07	4.54E-08	0
Lake	2050	Construction and Mining - Misc - Rollers	Aggregate	Aggregate	Gasoline	1.99E-04	1.51E-04	7.16E-03	2.02E-07	6.90E-05	5.20E-05	1.02E-02	3
Lake	2050	Construction and Mining - Misc - Rollers	Aggregate	Aggregate	Diesel	2.04E-05	1.29E-04	8.93E-05	2.06E-09	4.42E-06	3.34E-06	3.04E-07	0
Lake	2050	Construction and Mining - Misc - Rough Terrain Forklifts	Aggregate	Aggregate	Gasoline	1.44E-05	3.87E-05	1.08E-03	2.00E-07	1.43E-06	1.08E-06	2.05E-02	7
Lake	2050	Construction and Mining - Misc - Rubber Tired Loaders	Aggregate	Aggregate	Gasoline	8.71E-06	2.23E-05	7.08E-04	1.05E-07	7.42E-07	5.61E-07	1.07E-02	4
Lake	2050	Construction and Mining - Misc - Rubber Tired Loaders	Aggregate	Aggregate	Diesel	5.62E-07	3.55E-06	1.92E-06	4.88E-11	1.20E-07	9.03E-08	8.20E-09	0
Lake	2050	Construction and Mining - Misc - Signal Boards	Aggregate	Aggregate	Gasoline	9.57E-06	6.94E-06	3.23E-04	5.14E-09	3.71E-06	2.80E-06	1.19E-08	0
Lake	2050	Construction and Mining - Misc - Signal Boards	Aggregate	Aggregate	Diesel	4.74E-05	2.98E-04	2.52E-04	1.62E-08	1.03E-05	7.83E-06	2.25E-04	0
Lake	2050	Construction and Mining - Misc - Skid Steer Loaders	Aggregate	Aggregate	Gasoline	2.95E-04	2.22E-04	9.90E-03	4.44E-07	9.53E-05	7.22E-05	2.92E-02	10

Lake	2050 Construction and Mining - Misc - Skid Steer Loaders	Aggregate	Aggregate	Diesel	1.57E-04	9.92E-04	5.36E-04	1.36E-08	3.33E-05	2.52E-05	2.29E-06	0
Lake	2050 Construction and Mining - Misc - Surfacing Equipment	Aggregate	Aggregate	Gasoline	5.19E-04	3.67E-04	1.36E-02	2.21E-07	1.50E-04	1.14E-04	5.00E-07	0
Lake	2050 Construction and Mining - Misc - Tampers/Rammers	Aggregate	Aggregate	Gasoline	4.63E-05	3.64E-05	1.78E-03	2.88E-08	2.52E-05	1.90E-05	7.77E-08	0
Lake	2050 Construction and Mining - Misc - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Gasoline	5.49E-06	1.54E-05	4.25E-04	6.65E-08	4.80E-07	3.63E-07	6.88E-03	2
Lake	2050 Construction and Mining - Misc - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	1.52E-05	9.60E-05	5.18E-05	1.32E-09	3.23E-06	2.44E-06	2.22E-07	0
Lake	2050 Construction and Mining - Misc - Trenchers	Aggregate	Aggregate	Gasoline	3.61E-04	2.70E-04	1.32E-02	3.84E-07	1.28E-04	9.70E-05	1.88E-02	6
Lake	2050 Construction and Mining - Misc - Trenchers	Aggregate	Aggregate	Diesel	1.67E-05	1.05E-04	6.38E-05	1.55E-09	3.57E-06	2.70E-06	2.46E-07	0
Lake	2050 Construction and Mining - Nurse Rig Other	Aggregate	Aggregate	Diesel	2.32E-08	2.65E-08	4.51E-07	6.84E-10	2.22E-09	2.04E-09	7.22E-05	0
Lake	2050 Construction and Mining - Off-Highway Tractors	Aggregate	Aggregate	Diesel	1.93E-04	5.28E-04	2.05E-03	4.60E-06	1.61E-05	1.48E-05	4.85E-01	161
Lake	2050 Construction and Mining - Off-Highway Trucks	Aggregate	Aggregate	Diesel	3.77E-04	1.45E-03	2.58E-03	1.11E-05	3.90E-05	3.59E-05	1.17E+00	387
Lake	2050 Construction and Mining - Other Construction Equipment	Aggregate	Aggregate	Diesel	1.61E-04	6.21E-04	1.74E-03	5.32E-06	1.78E-05	1.64E-05	5.61E-01	186
Lake	2050 Construction and Mining - Other Material Handling Equipment	Aggregate	Aggregate	Diesel	5.01E-05	1.69E-04	5.44E-04	1.61E-06	5.29E-06	4.87E-06	1.70E-01	56
Lake	2050 Construction and Mining - Pavers	Aggregate	Aggregate	Diesel	5.71E-05	1.92E-04	7.12E-04	1.63E-06	5.90E-06	5.43E-06	1.72E-01	57
Lake	2050 Construction and Mining - Paving Equipment	Aggregate	Aggregate	Diesel	5.96E-05	1.61E-04	7.21E-04	1.80E-06	5.79E-06	5.33E-06	1.90E-01	63
Lake	2050 Construction and Mining - Rollers	Aggregate	Aggregate	Diesel	1.67E-04	7.23E-04	2.62E-03	4.35E-06	1.60E-05	1.47E-05	4.59E-01	152
Lake	2050 Construction and Mining - Rough Terrain Forklifts	Aggregate	Aggregate	Diesel	1.62E-04	6.50E-04	3.31E-03	5.33E-06	1.66E-05	1.53E-05	5.62E-01	186
Lake	2050 Construction and Mining - Rubber Tired Dozers	Aggregate	Aggregate	Diesel	3.70E-05	6.56E-05	3.05E-04	1.13E-06	3.18E-06	2.93E-06	1.19E-01	39
Lake	2050 Construction and Mining - Rubber Tired Loaders	Aggregate	Aggregate	Diesel	6.48E-04	1.06E-03	6.33E-03	1.88E-05	5.53E-05	5.09E-05	1.99E+00	658
Lake	2050 Construction and Mining - Scrapers	Aggregate	Aggregate	Diesel	2.86E-04	4.21E-04	2.43E-03	1.15E-05	2.89E-05	2.66E-05	1.21E+00	401
Lake	2050 Construction and Mining - Skid Steer Loaders	Aggregate	Aggregate	Diesel	3.96E-04	3.08E-03	5.52E-03	8.68E-06	3.71E-05	3.41E-05	9.16E-01	303
Lake	2050 Construction and Mining - Spray Truck	Aggregate	Aggregate	Diesel	4.51E-06	1.33E-05	4.20E-05	1.06E-07	3.60E-07	3.31E-07	1.12E-02	4
Lake	2050 Construction and Mining - Spreader Tractor Trailer	Aggregate	Aggregate	Diesel	4.56E-07	7.46E-07	3.25E-06	1.33E-08	3.53E-08	3.25E-08	1.41E-03	0
Lake	2050 Construction and Mining - Spreader Truck	Aggregate	Aggregate	Diesel	2.69E-06	3.88E-06	2.55E-05	8.28E-08	2.41E-07	2.22E-07	8.75E-03	3
Lake	2050 Construction and Mining - Surfacing Equipment	Aggregate	Aggregate	Diesel	2.84E-05	8.05E-05	2.32E-04	8.78E-07	2.95E-06	2.71E-06	9.27E-02	31
Lake	2050 Construction and Mining - Tank Truck	Aggregate	Aggregate	Diesel	6.37E-06	7.94E-06	4.19E-05	1.77E-07	5.50E-07	5.06E-07	1.87E-02	6
Lake	2050 Construction and Mining - Tanker Truck Trailer	Aggregate	Aggregate	Diesel	5.04E-07	1.35E-06	6.68E-06	1.35E-08	4.52E-08	4.16E-08	1.43E-03	0
Lake	2050 Construction and Mining - Telescopic Handler	Aggregate	Aggregate	Diesel	1.10E-05	5.98E-05	2.09E-04	3.57E-07	1.09E-06	1.00E-06	3.77E-02	12
Lake	2050 Construction and Mining - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	8.95E-04	3.06E-03	1.36E-02	2.49E-05	9.07E-05	8.35E-05	2.62E+00	869
Lake	2050 Construction and Mining - Trenchers	Aggregate	Aggregate	Diesel	3.57E-05	2.44E-04	4.12E-04	8.73E-07	4.22E-06	3.88E-06	9.21E-02	31
Lake	2050 Construction and Mining - Vacuum Truck	Aggregate	Aggregate	Diesel	9.77E-06	1.88E-05	1.00E-04	2.76E-07	9.52E-07	8.76E-07	2.91E-02	10
Lake	2050 Construction and Mining - Water Truck	Aggregate	Aggregate	Diesel	2.81E-05	5.09E-05	1.96E-04	8.43E-07	2.47E-06	2.27E-06	8.90E-02	29
TOTAL CONSTRUCTION OFFROAD (tons/day)					9.31E-03	2.14E-02	1.84E-01	1.51E-04	1.75E-03	1.40E-03	15.78	
ESTIMATED Unincorporated Lake County (tons/yr)					2.95	6.79	58.45	0.05	0.55	0.45	5002.90	4,539
ESTIMATED Unincorporated Lake County (lbs/day)					16	37	320	0	3	2	10,005,800	

TOTAL PERMITS:	2020	2021	2022	2023	2024	Average
Housing Permits in Lake County	104	81	151	76	114	105
Housing Permits in the UNINCORPORATED Lake County	83	66	143	75	90	91
% Attributable to Unincorporated County	80%	81%	95%	99%	79%	87%

Source: HUD 2025

Note: Proportion of housing permits in the full county vs unincorporated county assumed to remain the same as existing conditions.

**Industrial and Light Commercial**

Region	CalYr	VehClass	MdlYr	HP_Bin	Fuel	ROG_tpd	NOx_tpd	CO_tpd	SOx_tpd	PM10_tpd	PM2_5_tpd	CO2_tpd	CO2e_MTY
Lake	2050	Industrial - Aerial Lifts	Aggregate	Aggregate	Diesel	9.18E-06	9.71E-05	1.47E-04	2.38E-07	8.78E-07	8.08E-07	0.03	8
Lake	2050	Industrial - Boom	Aggregate	Aggregate	Diesel	1.21E-05	1.14E-04	1.54E-04	2.33E-07	8.88E-07	8.17E-07	0.02	8
Lake	2050	Industrial - Forklifts	Aggregate	Aggregate	Diesel	3.85E-05	1.93E-04	6.48E-04	1.06E-06	3.64E-06	3.35E-06	0.11	37
Lake	2050	Industrial - Garbage Refuse	Aggregate	Aggregate	Diesel	3.50E-07	1.13E-06	2.49E-06	1.13E-08	3.42E-08	3.15E-08	0.00	0
Lake	2050	Industrial - Garbage Transfer	Aggregate	Aggregate	Diesel	6.65E-08	6.79E-08	4.42E-07	2.03E-09	5.21E-09	4.79E-09	0.00	0
Lake	2050	Industrial - Misc - Aerial Lifts	Aggregate	Aggregate	Gasoline	3.97E-05	3.62E-05	1.42E-03	1.14E-07	1.05E-05	7.95E-06	0.01	3
Lake	2050	Industrial - Misc - Aerial Lifts	Aggregate	Aggregate	Diesel	2.02E-06	1.27E-05	8.19E-06	1.94E-10	4.34E-07	3.28E-07	0.00	0
Lake	2050	Industrial - Misc - Aerial Lifts	Aggregate	Aggregate	Nat Gas	4.84E-07	3.73E-06	1.36E-04	2.90E-10	3.66E-07	2.76E-07	0.00	0
Lake	2050	Industrial - Misc - Forklifts	Aggregate	Aggregate	Gasoline	3.18E-04	1.46E-03	3.55E-02	3.14E-06	2.18E-05	1.65E-05	0.31	104
Lake	2050	Industrial - Misc - Forklifts	Aggregate	Aggregate	Nat Gas	8.44E-08	2.20E-03	2.03E-02	3.02E-11	4.45E-05	3.12E-08	0.50	166
Lake	2050	Industrial - Misc - Other General Industrial Equipment	Aggregate	Aggregate	Gasoline	4.14E-06	1.49E-05	4.15E-04	4.71E-08	3.00E-07	2.27E-07	0.00	1
Lake	2050	Industrial - Misc - Other General Industrial Equipment	Aggregate	Aggregate	Diesel	1.61E-06	1.05E-05	6.53E-06	1.55E-10	3.57E-07	2.70E-07	0.00	0
Lake	2050	Industrial - Misc - Other Material Handling Equipment	Aggregate	Aggregate	Gasoline	1.44E-06	8.93E-06	1.22E-04	2.48E-08	1.78E-07	1.35E-07	0.00	1
Lake	2050	Industrial - Misc - Sweepers/Scrubbers	Aggregate	Aggregate	Gasoline	1.35E-05	5.53E-05	1.16E-03	1.91E-07	1.25E-06	9.45E-07	0.02	6
Lake	2050	Industrial - Misc - Sweepers/Scrubbers	Aggregate	Aggregate	Diesel	4.13E-07	2.73E-06	1.83E-06	4.20E-11	9.36E-08	7.07E-08	0.00	0
Lake	2050	Industrial - Mower	Aggregate	Aggregate	Diesel	8.28E-06	5.82E-05	9.03E-05	1.25E-07	6.93E-07	6.37E-07	0.01	4
Lake	2050	Industrial - Other General Industrial Equipment	Aggregate	Aggregate	Diesel	1.28E-05	5.95E-05	1.30E-04	3.26E-07	1.29E-06	1.19E-06	0.03	11
Lake	2050	Industrial - Other Truck	Aggregate	Aggregate	Diesel	7.22E-06	1.69E-05	5.32E-05	1.88E-07	7.14E-07	6.57E-07	0.02	7
Lake	2050	Industrial - Railcars or Track Cars	Aggregate	Aggregate	Diesel	4.90E-07	1.07E-06	5.70E-06	1.44E-08	4.44E-08	4.09E-08	0.00	1
Lake	2050	Industrial - Sweepers/Scrubbers	Aggregate	Aggregate	Diesel	2.45E-06	1.85E-05	3.66E-05	6.25E-08	2.77E-07	2.55E-07	0.01	2
Lake	2050	Industrial - Tow Tractor	Aggregate	Aggregate	Diesel	1.28E-08	1.28E-08	8.91E-08	4.17E-10	9.94E-10	9.14E-10	0.00	0
Lake	2050	Industrial - Yard Goat	Aggregate	Aggregate	Diesel	1.96E-05	2.28E-05	2.51E-04	4.98E-07	1.55E-06	1.43E-06	0.05	17
Lake	2050	Light Commercial - Misc - Air Compressors	Aggregate	Aggregate	Gasoline	9.66E-03	5.73E-03	6.04E-01	2.15E-05	3.09E-05	2.33E-05	1.29	427
Lake	2050	Light Commercial - Misc - Air Compressors	Aggregate	Aggregate	Diesel	4.22E-05	3.39E-04	4.63E-04	7.45E-07	3.01E-06	2.53E-06	0.06	20
Lake	2050	Light Commercial - Misc - Air Compressors	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0
Lake	2050	Light Commercial - Misc - Gas Compressors	Aggregate	Aggregate	Nat Gas	0.00E+00	1.43E-03	1.67E-02	0.00E+00	0.00E+00	0.00E+00	0.46	151
Lake	2050	Light Commercial - Misc - Generator Sets	Aggregate	Aggregate	Gasoline	2.53E-04	7.95E-04	2.05E-02	3.37E-06	2.06E-05	1.56E-05	0.30	99
Lake	2050	Light Commercial - Misc - Generator Sets	Aggregate	Aggregate	Diesel	2.25E-04	1.86E-03	1.67E-03	3.32E-06	4.09E-05	3.15E-05	0.30	99
Lake	2050	Light Commercial - Misc - Generator Sets	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0
Lake	2050	Light Commercial - Misc - Generator Sets	Aggregate	Aggregate	Nat Gas	0.00E+00	3.73E-05	4.16E-04	0.00E+00	0.00E+00	0.00E+00	0.01	5
Lake	2050	Light Commercial - Misc - Pressure Washers	Aggregate	Aggregate	Gasoline	2.08E-06	3.62E-06	1.68E-04	2.34E-08	1.31E-07	9.93E-08	0.00	1
Lake	2050	Light Commercial - Misc - Pressure Washers	Aggregate	Aggregate	Diesel	1.08E-06	9.63E-06	8.50E-06	1.71E-08	2.25E-07	1.72E-07	0.00	0
Lake	2050	Light Commercial - Misc - Pressure Washers	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0
Lake	2050	Light Commercial - Misc - Pumps	Aggregate	Aggregate	Gasoline	1.70E-03	9.08E-04	9.32E-02	4.57E-06	1.27E-05	9.59E-06	0.33	108
Lake	2050	Light Commercial - Misc - Pumps	Aggregate	Aggregate	Diesel	1.27E-04	1.01E-03	9.68E-04	1.84E-06	2.13E-05	1.65E-05	0.16	54
Lake	2050	Light Commercial - Misc - Pumps	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0
Lake	2050	Light Commercial - Misc - Welders	Aggregate	Aggregate	Gasoline	4.24E-03	2.03E-03	2.55E-01	9.33E-06	1.77E-05	1.34E-05	0.57	187
Lake	2050	Light Commercial - Misc - Welders	Aggregate	Aggregate	Diesel	2.22E-04	1.83E-03	2.20E-03	3.81E-06	2.37E-05	1.90E-05	0.32	
Lake	2050	Light Commercial - Misc - Welders	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0
TOTAL LIGHT COMMERCIAL + INDUSTRIAL OFFROAD (tons/day)						0.017	0.020	1.056	0.000	0.000	0.000	4.93	
ESTIMATED Unincorporated Lake County (tons/yr)						4.51	5.42	280.94	0.01	0.07	0.04	3.59	1,113
ESTIMATED Unincorporated Lake County (lbs/day)						25	30	1539	0	0	0	7184	

EMPLOYMENT:		2024
Employment in Lake County		25,970
Employment in Unincorporated Lake County		18,920
Percent in the City		73%

Source: EDD 2025

Note: Proportion of employment in the full county vs unincorporated county assumed to remain the same as existing conditions.

**Lawn and Garden**

Region	CalYr	VehClass	MdlYr	HP_Bin	Fuel	ROG_tpd	NOx_tpd	CO_tpd	SOx_tpd	PM10_tpd	PM2_5_tpd	CO2_tpd	CO2e_MTY
Lake	2050	Lawn and Garden - Misc - Chainsaws	Aggregate	Aggregate	Gasoline	5.45E-06	1.88E-07	1.42E-05	1.13E-09	6.05E-08	4.57E-08	7.61E-05	0
Lake	2050	Lawn and Garden - Misc - Chainsaws	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2050	Lawn and Garden - Misc - Chainsaws Preempt	Aggregate	Aggregate	Gasoline	1.89E-02	6.86E-04	3.23E-02	2.76E-06	1.38E-04	1.04E-04	1.73E-01	57
Lake	2050	Lawn and Garden - Misc - Chainsaws Preempt	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2050	Lawn and Garden - Misc - Chippers/Stump Grinders	Aggregate	Aggregate	Gasoline	3.22E-05	1.10E-05	1.48E-03	5.39E-08	5.02E-08	3.80E-08	3.16E-03	1
Lake	2050	Lawn and Garden - Misc - Chippers/Stump Grinders	Aggregate	Aggregate	Diesel	4.79E-07	3.03E-06	1.64E-06	3.80E-09	1.02E-07	7.69E-08	3.97E-04	0
Lake	2050	Lawn and Garden - Misc - Chippers/Stump Grinders	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2050	Lawn and Garden - Misc - Lawn Mowers	Aggregate	Aggregate	Gasoline	2.83E-06	1.75E-06	1.20E-04	7.68E-09	6.75E-09	5.10E-09	3.04E-04	0
Lake	2050	Lawn and Garden - Misc - Lawn Mowers	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2050	Lawn and Garden - Misc - Leaf Blowers/Vacuums	Aggregate	Aggregate	Gasoline	1.16E-08	3.80E-10	4.96E-08	3.51E-12	1.43E-10	1.08E-10	2.49E-07	0
Lake	2050	Lawn and Garden - Misc - Leaf Blowers/Vacuums	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2050	Lawn and Garden - Misc - Other	Aggregate	Aggregate	Gasoline	1.98E-07	7.90E-08	9.97E-06	3.88E-10	3.40E-10	2.57E-10	2.26E-05	0
Lake	2050	Lawn and Garden - Misc - Other	Aggregate	Aggregate	Diesel	2.13E-07	1.47E-06	1.18E-06	1.92E-09	5.16E-08	3.89E-08	2.02E-04	0
Lake	2050	Lawn and Garden - Misc - Rear Engine Riding Mowers	Aggregate	Aggregate	Gasoline	1.45E-05	7.43E-06	7.79E-04	2.90E-07	2.18E-08	1.65E-08	2.94E-02	10
Lake	2050	Lawn and Garden - Misc - Rear Engine Riding Mowers	Aggregate	Aggregate	Diesel	1.84E-04	1.19E-03	7.41E-04	1.52E-06	4.07E-05	3.07E-05	1.59E-01	53
Lake	2050	Lawn and Garden - Misc - Rear Engine Riding Mowers	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2050	Lawn and Garden - Misc - Snowblowers	Aggregate	Aggregate	Gasoline	1.02E-09	4.70E-10	7.17E-08	3.50E-12	2.07E-12	1.56E-12	1.25E-07	0
Lake	2050	Lawn and Garden - Misc - Snowblowers	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2050	Lawn and Garden - Misc - Tillers	Aggregate	Aggregate	Gasoline	1.95E-08	2.82E-09	2.86E-07	1.33E-11	2.60E-11	1.97E-11	7.67E-07	0
Lake	2050	Lawn and Garden - Misc - Tillers	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2050	Lawn and Garden - Misc - Trimmers/Edgers/Brush Cutters	Aggregate	Aggregate	Gasoline	5.99E-10	3.75E-11	3.42E-09	2.30E-13	4.85E-12	3.67E-12	1.68E-08	0
Lake	2050	Lawn and Garden - Misc - Trimmers/Edgers/Brush Cutters	Aggregate	Aggregate	Electric	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
Lake	2050	Lawn and Garden - Misc - Wood Splitters	Aggregate	Aggregate	Gasoline	1.09E-05	5.34E-06	5.60E-04	2.19E-08	2.07E-08	1.56E-08	1.33E-03	0
TOTAL LAWN & GARDEN (tons/day)						0.02	0.00	0.04	0.00	0.00	0.00	0.37	
ESTIMATED Unincorporated Lake County (tons/yr)						4.76	0.48	8.97	0.00	0.04	0.03	91.27	83
ESTIMATED Unincorporated Lake County (lbs/day)						26	3	49	0	0	0	500	

POPULATION	Clearlake	Lakeport	Unincorporated	2050
Population of Lake County (2050)	19,149	5,931	53,770	78,850
Population of UNINCORPORATED Lake County (2050)				53,770
Percent in the unincorporated county				68%

Source: DOF 2024

Note: Population at 2050 is based on 17% growth from existing conditions in each city and the unincorporated county. 17% growth is based on the population growth of the buildout projections described in Chapter 2, *Project Description*, of the Draft EIR. For the purposes of this analysis, the rate of growth is assumed to be the same in the incorporated cities as the unincorporated county. Note that the population of the unincorporated county shown here is not the same as the 2050 buildout for the EIR Study Area shown in the EIR because these numbers are based on the DOF 2024 existing population for the county.

## Lake County VMT

Source: Fehr & Peers 2025.

Scenario	Daily VMT			Total Daily VMT	Total with RTAC	Service Population	VMT/SP	VMT/SP w RTAC
	IX	XI	II					
Existing Year (Year 2019)	268,216	279,322	880,113	1,427,651	1,153,882	62,870	22.7	18.4
GP Update (Year 2050)	301,429	317,822	1,164,945	1,784,196	1,474,571	75,235	23.7	19.6

Notes: Total may not add to 100% due to rounding.

IX = Internal-External

XI = External- Internal

II = Internal-Internal

Modeling of vehicle miles traveled (VMT) provided by Fehr & Peers, 2025. VMT from passenger vehicles and trucks that have an origin or destination in the City using a transportation origin-destination methodology. Accounting of VMT is based on the recommendations of CARB's Regional Targets Advisory Committee (RTAC) created under Senate Bill 375 (SB 375). For accounting purposes, there are three types of trips:

- » Vehicle trips that originated and terminated within the County (Internal-Internal, I-I). Using the accounting rules established by RTAC, 100 percent of the length of these trips, and their emissions, are attributed to the County.
- » Vehicle trips that either originated or terminated (but not both) within the County (Internal-External or External-Internal, I-X and X-I). Using the accounting rules established by RTAC, 50 percent of the trip length for these trips is attributed to the County.
- » Vehicle trips that neither originated nor terminated within the County. These trips are commonly called pass-through trips (External-External, X-X). Using the accounting rules established by RTAC, these trips are not counted towards the County's VMT or emissions.

## Lake County — TRANSPORTATION SECTOR (Criteria Air Pollutants)

Source: EMFAC2021 V.1.0.2., Web Database - Emission Rates. Lake County. Based on the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5) Global Warming Potentials (GWPs); Fehr & Peers 2025.

<b>Criteria Air Pollutants</b>						
	<b>lbs/day</b>					
	<b>ROG</b>	<b>NOx</b>	<b>CO</b>	<b>SOx</b>	<b>PM10</b>	<b>PM2.5</b>
Existing EIR Study Area	129	857	3,788	10	74	32
Proposed 2050 EIR Study Area	22	146	1,700	5	66	22
Change from Existing Conditions (2019-2050)	-108	-712	-2,088	-5	-7	-9

	<b>Tons/year</b>					
	<b>ROG</b>	<b>NOx</b>	<b>CO</b>	<b>SOx</b>	<b>PM10</b>	<b>PM2.5</b>
Existing EIR Study Area	22	149	657	2	13	5
Proposed 2050 EIR Study Area	4	25	295	1	12	4
Change from Existing Conditions (2019-2050)	-19	-124	-362	-1	-1	-2

Notes:

1

lbs to Tons 2000

2

MTons = metric tons; CO<sub>2</sub>e = carbon dioxide-equivalent.

Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the 2008 Climate Change Scoping Plan Measure Documentation Supplement.

# Year 2024 Existing: Criteria Air Pollutants

Source: EMFAC2021 Version 1.0.2. PL Emission Rates, Lake County

<sup>1</sup> Based on data provided Fehr & Peers 2025.

## Fleet Mix - EMFAC Default

Passenger Vehicles	90%	Trucks	10%
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Daily VMT		1,153,882	lbs/day					
Vehicle Type	Fuel Type	Percent of VMT	ROG	NOx	CO	SOx	PM10	PM2.5
All Other Buses	Diesel	0.02%	0.10	1.10	0.27	0.00	0.06	0.05
LDA	Gasoline	41.01%	24.09	97.57	1,311.63	3.06	18.05	6.48
LDA	Diesel	0.24%	0.35	3.61	3.67	0.01	0.33	0.25
LDA	Electricity	1.83%	0.00	0.00	0.00	0.00	0.58	0.16
LDA	Plug-in Hybrid	1.06%	0.02	0.05	3.20	0.02	0.33	0.10
LDT1	Gasoline	5.35%	10.47	44.91	434.39	0.49	2.86	1.15
LDT1	Diesel	0.00%	0.02	0.12	0.13	0.00	0.02	0.02
LDT1	Electricity	0.01%	0.00	0.00	0.00	0.00	0.00	0.00
LDT1	Plug-in Hybrid	0.00%	0.00	0.00	0.01	0.00	0.00	0.00
LDT2	Gasoline	22.37%	13.46	82.83	765.17	2.09	10.65	3.80
LDT2	Diesel	0.08%	0.05	0.35	0.50	0.01	0.05	0.03
LDT2	Electricity	0.08%	0.00	0.00	0.00	0.00	0.02	0.01
LDT2	Plug-in Hybrid	0.15%	0.00	0.01	0.41	0.00	0.05	0.01
LHD1	Gasoline	2.76%	10.36	35.24	215.74	0.66	6.26	2.26
LHD1	Diesel	3.22%	23.67	271.66	73.07	0.49	12.88	7.75
LHD1	Electricity	0.01%	0.00	0.00	0.00	0.00	0.01	0.00
LHD2	Gasoline	0.22%	0.48	1.98	10.98	0.06	0.58	0.21
LHD2	Diesel	1.15%	6.85	68.21	19.85	0.22	4.60	2.54
LHD2	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
MCY	Gasoline	0.50%	21.27	9.83	234.51	0.02	0.23	0.09
MDV	Gasoline	16.66%	14.12	83.32	664.84	1.89	8.08	2.90
MDV	Diesel	0.39%	0.21	1.28	3.36	0.04	0.26	0.14
MDV	Electricity	0.09%	0.00	0.00	0.00	0.00	0.03	0.01
MDV	Plug-in Hybrid	0.11%	0.00	0.00	0.31	0.00	0.03	0.01
MH	Gasoline	0.13%	0.52	3.00	13.80	0.06	0.20	0.07
MH	Diesel	0.05%	0.22	8.20	0.84	0.01	0.29	0.23
Motor Coach	Diesel	0.02%	0.01	1.08	0.05	0.01	0.07	0.04
OBUS	Gasoline	0.03%	0.13	0.81	2.98	0.01	0.04	0.01
OBUS	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
PTO	Diesel	0.06%	0.06	5.59	0.52	0.03	0.01	0.01
PTO	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
SBUS	Gasoline	0.06%	0.20	1.72	5.05	0.01	0.09	0.03
SBUS	Diesel	0.09%	0.13	9.14	0.42	0.02	0.18	0.09
SBUS	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 Instate Delivery Class 4	Diesel	0.02%	0.08	1.14	0.23	0.01	0.07	0.04
T6 Instate Delivery Class 4	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 Instate Delivery Class 5	Diesel	0.00%	0.00	0.07	0.01	0.00	0.01	0.00
T6 Instate Delivery Class 5	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 Instate Delivery Class 6	Diesel	0.02%	0.03	0.65	0.10	0.01	0.05	0.02
T6 Instate Delivery Class 6	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 Instate Delivery Class 7	Diesel	0.01%	0.00	0.25	0.02	0.00	0.02	0.01
T6 Instate Other Class 4	Diesel	0.12%	0.25	5.83	0.76	0.03	0.29	0.17
T6 Instate Other Class 4	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 Instate Other Class 5	Diesel	0.22%	0.08	4.07	0.40	0.06	0.36	0.14
T6 Instate Other Class 5	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 Instate Other Class 6	Diesel	0.09%	0.18	4.42	0.58	0.02	0.22	0.13
T6 Instate Other Class 6	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 Instate Other Class 7	Diesel	0.12%	0.05	3.68	0.28	0.03	0.20	0.08
T6 Instate Tractor Class 6	Diesel	0.00%	0.02	0.19	0.04	0.00	0.01	0.01
T6 Instate Tractor Class 6	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 Instate Tractor Class 7	Diesel	0.02%	0.01	0.43	0.03	0.00	0.03	0.01
T6 Public Class 4	Diesel	0.03%	0.06	4.41	0.14	0.01	0.07	0.04
T6 Public Class 4	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 Public Class 5	Diesel	0.02%	0.02	1.51	0.06	0.01	0.04	0.02

# Year 2024 Existing: Criteria Air Pollutants

Source: EMFAC2021 Version 1.0.2. PL Emission Rates. Lake County

<sup>1</sup>: Based on data provided Fehr & Peers 2025.

## Fleet Mix - EMFAC Default

Passenger Vehicles	90%	Trucks	10%
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Daily VMT		1,153,882							lbs/day	
Vehicle Type	Fuel Type	Percent of VMT	ROG	NOx	CO	SOx	PM10	PM2.5		
T6 Public Class 5	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
T6 Public Class 6	Diesel	0.02%	0.05	3.42	0.12	0.01	0.06	0.03		
T6 Public Class 6	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00		
T6 Public Class 7	Diesel	0.06%	0.15	9.11	0.33	0.02	0.16	0.10		
T6 Public Class 7	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00		
T6 Utility Class 5	Diesel	0.00%	0.00	0.07	0.01	0.00	0.01	0.00		
T6 Utility Class 5	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00		
T6 Utility Class 6	Diesel	0.00%	0.00	0.01	0.00	0.00	0.00	0.00		
T6 Utility Class 6	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00		
T6 Utility Class 7	Diesel	0.00%	0.00	0.01	0.00	0.00	0.00	0.00		
T6 Utility Class 7	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00		
T6TS	Gasoline	0.16%	0.64	3.74	15.04	0.07	0.24	0.08		
T6TS	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00		
T7 CAIRP Class 8	Diesel	0.17%	0.06	6.65	0.25	0.06	0.61	0.28		
T7 CAIRP Class 8	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00		
T7 NNOOS Class 8	Diesel	0.20%	0.06	7.59	0.26	0.07	0.71	0.33		
T7 NOOS Class 8	Diesel	0.07%	0.02	2.93	0.11	0.03	0.26	0.12		
T7 Public Class 8	Diesel	0.12%	0.42	30.55	1.36	0.06	0.65	0.33		
T7 Public Class 8	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00		
T7 Single Concrete/Transit Mix Class 8	Diesel	0.03%	0.01	0.98	0.06	0.01	0.11	0.04		
T7 Single Concrete/Transit Mix Class 8	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00		
T7 Single Dump Class 8	Diesel	0.13%	0.06	5.52	0.34	0.05	0.45	0.18		
T7 Single Other Class 8	Diesel	0.14%	0.09	7.53	0.52	0.05	0.49	0.21		
T7 SWCV Class 8	Diesel	0.01%	0.00	1.76	0.00	0.01	0.04	0.01		
T7 Tractor Class 8	Diesel	0.46%	0.18	19.17	0.99	0.17	1.62	0.69		
T7 Tractor Class 8	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00		
T7 Utility Class 8	Diesel	0.00%	0.00	0.13	0.01	0.00	0.01	0.00		
T7 Utility Class 8	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00		
T7IS	Gasoline	0.00%	0.01	0.06	0.40	0.00	0.00	0.00		
T7IS	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00		
		100%	129.35	857.48	3788.16	10.03	73.63	31.54		

# Year 2050: GP 2050 Update Criteria Air Pollutants

Source: EMFAC2021 Version 1.0.2. PL Emission Rates. Lake County

<sup>1</sup> Based on data provided Fehr & Peers 2025.

## Fleet Mix - EMFAC Default

Passenger Vehicles	94%	Trucks	6%
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<b>Daily VMT</b>	<b>1,474,571</b>	<b>lbs/day</b>
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Vehicle Type	Fuel Type	Percent of VMT	ROG	NOx	CO	SOx	PM10	PM2.5
All Other Buses	Diesel	0.02%	0.02	0.50	0.08	0.00	0.04	0.02
LDA	Gasoline	42.51%	4.45	29.58	738.65	0.00	22.29	7.11
LDA	Diesel	0.03%	0.01	0.03	0.21	0.00	0.02	0.01
LDA	Electricity	5.87%	0.00	0.00	0.00	0.00	2.37	0.68
LDA	Plug-in Hybrid	2.01%	0.03	0.08	5.22	0.00	0.79	0.23
LDT1	Gasoline	2.47%	0.27	1.79	44.61	0.00	1.42	0.46
LDT1	Diesel	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
LDT1	Electricity	0.08%	0.00	0.00	0.00	0.00	0.03	0.01
LDT1	Plug-in Hybrid	0.06%	0.00	0.00	0.15	0.00	0.02	0.01
LDT2	Gasoline	24.62%	3.55	19.28	497.56	0.00	14.16	4.57
LDT2	Diesel	0.09%	0.05	0.10	0.59	0.00	0.07	0.03
LDT2	Electricity	0.68%	0.00	0.00	0.00	0.00	0.28	0.08
LDT2	Plug-in Hybrid	0.67%	0.01	0.03	1.74	0.00	0.26	0.08
LHD1	Gasoline	1.00%	0.14	0.77	19.40	0.03	2.83	0.99
LHD1	Diesel	0.44%	1.37	4.89	3.57	0.02	1.60	0.73
LHD1	Electricity	1.17%	0.00	0.00	0.00	0.00	1.79	0.60
LHD2	Gasoline	0.07%	0.01	0.04	1.33	0.00	0.22	0.08
LHD2	Diesel	0.24%	1.04	4.70	2.76	0.01	1.04	0.50
LHD2	Electricity	0.22%	0.00	0.00	0.00	0.00	0.39	0.13
MCY	Gasoline	0.29%	8.07	4.61	98.44	0.00	0.17	0.07
MDV	Gasoline	13.58%	1.99	10.82	279.12	0.00	7.84	2.53
MDV	Diesel	0.15%	0.04	0.08	1.07	0.00	0.09	0.03
MDV	Electricity	0.61%	0.00	0.00	0.00	0.00	0.25	0.07
MDV	Plug-in Hybrid	0.41%	0.01	0.02	1.06	0.00	0.16	0.05
MH	Gasoline	0.03%	0.01	0.18	0.13	0.00	0.05	0.02
MH	Diesel	0.02%	0.04	1.34	0.12	0.00	0.04	0.02
Motor Coach	Diesel	0.03%	0.01	0.77	0.03	0.07	0.10	0.05
OBUS	Gasoline	0.01%	0.00	0.07	0.04	0.00	0.01	0.00
OBUS	Electricity	0.01%	0.00	0.00	0.00	0.00	0.01	0.00
PTO	Diesel	0.05%	0.05	6.33	0.53	0.00	0.01	0.01
PTO	Electricity	0.02%	0.00	0.00	0.00	0.00	0.00	0.00
SBUS	Gasoline	0.01%	0.00	0.02	0.03	0.00	0.01	0.00
SBUS	Diesel	0.04%	0.01	0.34	0.06	0.02	0.07	0.03
SBUS	Electricity	0.05%	0.00	0.00	0.00	0.00	0.06	0.02
T6 Instate Delivery Class 4	Diesel	0.01%	0.00	0.11	0.02	0.01	0.02	0.01
T6 Instate Delivery Class 4	Electricity	0.01%	0.00	0.00	0.00	0.00	0.01	0.00
T6 Instate Delivery Class 5	Diesel	0.00%	0.00	0.02	0.00	0.00	0.00	0.00
T6 Instate Delivery Class 5	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 Instate Delivery Class 6	Diesel	0.01%	0.00	0.12	0.02	0.01	0.02	0.01
T6 Instate Delivery Class 6	Electricity	0.01%	0.00	0.00	0.00	0.00	0.02	0.00
T6 Instate Delivery Class 7	Diesel	0.01%	0.00	0.12	0.02	0.00	0.01	0.01
T6 Instate Delivery Class 7	Electricity	0.00%	0.00	0.00	0.00	0.00	0.01	0.00
T6 Instate Other Class 4	Diesel	0.05%	0.01	0.47	0.07	0.03	0.11	0.04
T6 Instate Other Class 4	Electricity	0.07%	0.00	0.00	0.00	0.00	0.08	0.03
T6 Instate Other Class 5	Diesel	0.10%	0.02	0.88	0.14	0.06	0.20	0.07
T6 Instate Other Class 5	Electricity	0.13%	0.00	0.00	0.00	0.00	0.15	0.05
T6 Instate Other Class 6	Diesel	0.04%	0.01	0.37	0.06	0.02	0.08	0.03
T6 Instate Other Class 6	Electricity	0.05%	0.00	0.00	0.00	0.00	0.06	0.02
T6 Instate Other Class 7	Diesel	0.07%	0.02	1.08	0.13	0.04	0.14	0.05
T6 Instate Other Class 7	Electricity	0.06%	0.00	0.00	0.00	0.00	0.06	0.02
T6 Instate Tractor Class 6	Diesel	0.00%	0.00	0.01	0.00	0.00	0.00	0.00

# Year 2050: GP 2050 Update Criteria Air Pollutants

Source: EMFAC2021 Version 1.0.2. PL Emission Rates. Lake County

<sup>1</sup> Based on data provided Fehr & Peers 2025.

## Fleet Mix - EMFAC Default

Passenger Vehicles	94%	Trucks	6%
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Daily VMT		1,474,571	lbs/day					
Vehicle Type	Fuel Type	Percent of VMT	ROG	NOx	CO	SOx	PM10	PM2.5
T6 Instate Tractor Class 6	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 Instate Tractor Class 7	Diesel	0.01%	0.00	0.19	0.02	0.01	0.03	0.01
T6 Instate Tractor Class 7	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 Public Class 4	Diesel	0.02%	0.00	0.16	0.02	0.01	0.03	0.01
T6 Public Class 4	Electricity	0.02%	0.00	0.00	0.00	0.00	0.02	0.01
T6 Public Class 5	Diesel	0.01%	0.00	0.13	0.02	0.01	0.02	0.01
T6 Public Class 5	Electricity	0.01%	0.00	0.00	0.00	0.00	0.01	0.00
T6 Public Class 6	Diesel	0.01%	0.00	0.13	0.02	0.01	0.02	0.01
T6 Public Class 6	Electricity	0.01%	0.00	0.00	0.00	0.00	0.01	0.00
T6 Public Class 7	Diesel	0.03%	0.01	0.34	0.05	0.03	0.06	0.02
T6 Public Class 7	Electricity	0.03%	0.00	0.00	0.00	0.00	0.03	0.01
T6 Utility Class 5	Diesel	0.00%	0.00	0.01	0.00	0.00	0.00	0.00
T6 Utility Class 5	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 Utility Class 6	Diesel	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 Utility Class 6	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 Utility Class 7	Diesel	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6 Utility Class 7	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
T6TS	Gasoline	0.08%	0.03	0.19	0.44	0.01	0.15	0.05
T6TS	Electricity	0.09%	0.00	0.00	0.00	0.00	0.10	0.03
T7 CAIRP Class 8	Diesel	0.15%	0.06	5.89	0.19	0.91	0.71	0.32
T7 CAIRP Class 8	Electricity	0.04%	0.00	0.00	0.00	0.00	0.10	0.03
T7 NNOOS Class 8	Diesel	0.22%	0.08	9.81	0.28	1.65	1.08	0.48
T7 NOOS Class 8	Diesel	0.08%	0.03	3.67	0.10	0.60	0.40	0.18
T7 Public Class 8	Diesel	0.07%	0.05	3.14	0.30	0.05	0.33	0.12
T7 Public Class 8	Electricity	0.06%	0.00	0.00	0.00	0.00	0.17	0.05
T7 Single Concrete/Transit Mix Diesel		0.01%	0.00	0.36	0.02	0.02	0.06	0.02
T7 Single Concrete/Transit Mix Electricity		0.02%	0.00	0.00	0.00	0.00	0.05	0.02
T7 Single Dump Class 8	Diesel	0.07%	0.02	2.24	0.11	0.08	0.30	0.12
T7 Single Dump Class 8	Electricity	0.07%	0.00	0.00	0.00	0.00	0.18	0.06
T7 Single Other Class 8	Diesel	0.16%	0.13	12.64	0.76	0.23	0.74	0.33
T7 SWCV Class 8	Diesel	0.00%	0.00	0.03	0.00	0.00	0.02	0.01
T7 SWCV Class 8	Electricity	0.00%	0.00	0.00	0.00	0.00	0.01	0.00
T7 Tractor Class 8	Diesel	0.44%	0.15	16.92	0.68	0.89	2.05	0.86
T7 Tractor Class 8	Electricity	0.09%	0.00	0.00	0.00	0.00	0.23	0.07
T7 Utility Class 8	Diesel	0.00%	0.00	0.07	0.01	0.00	0.01	0.00
T7 Utility Class 8	Electricity	0.00%	0.00	0.00	0.00	0.00	0.01	0.00
T7IS	Gasoline	0.00%	0.00	0.02	0.26	0.00	0.00	0.00
T7IS	Electricity	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
		100%	21.82	145.50	1700.26	4.85	66.45	22.37

Source: EMFAC2021 (v1.0.2) Emission Rates

Region Type: County

Region: Lake

Calendar Year: 2024

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Vehicle Category	Fuel	g/mile																	Combustion VMT	Electric VMT	% of VMT
		ROG_RUNEX	NOx_RUNEX	CO_RUNEX	SOx_RUNEX	PM10_RUNEX	PM10_PMTW	PM10_PMBW	PM10_Total	X	PM2.5_RUNE	PM2.5_PMT	PM2.5_PMB	PM2.5_Total	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX				
All Other Buses	Diesel	0.23234786	2.54461091	0.62174161	0.01116588	0.00911589	0.012	0.0461373	1.49E-01	0.08721253	0.003	0.01614804	1.06E-01	1179.15366	0.01079196	0.18577614	396	0	0.017%		
LDA	Gasoline	0.02092091	0.0935182	1.25715571	0.0029363	0.00167669	0.008	0.00762473	1.73E-02	0.00154166	0.002	0.00266866	6.21E-03	297.015154	0.00537392	0.00788093	957.017	0	41.014%		
LDA	Diesel	0.05925498	0.61357833	0.61294805	0.00239171	0.00397303	0.008	0.00777404	5.48E-02	0.003738274	0.002	0.00272091	4.21E-02	252.409437	0.00275228	0.03976721	5,492	0	0.235%		
LDA	Electricity	0	0	0	0	0	0.008	0.00436924	1.24E-02	0	0.002	0.0012888	3.53E-03	0	0	0	0	42,770	1.833%		
LDA	Plug-in Hybrid	0.00156616	0.00346625	0.23906209	0.00143081	0.00070079	0.008	0.0039193	1.26E-02	0.00064433	0.002	0.00137174	4.02E-03	144.730777	0.00049605	0.00063165	12,286	12,381	1.057%		
LD11	Gasoline	0.0768866	0.32980944	3.18994077	0.00359064	0.00335905	0.008	0.00962478	2.10E-02	0.00308873	0.002	0.00336867	8.46E-03	362.191856	0.01629587	0.02051392	124,908	0	5.533%		
LD11	Diesel	0.29812319	1.88228819	1.71957675	0.00393275	0.0025123903	0.008	0.01049308	2.70E-01	0.024037054	0.002	0.00367258	2.46E-01	415.043433	0.01384725	0.06539026	70	0	0.003%		
LD11	Electricity	0	0	0	0	0	0.008	0.00437524	1.24E-02	0	0.002	0.00153134	3.53E-03	0	0	0	0	117	0.005%		
LD11	Plug-in Hybrid	0.00141385	0.00312916	0.21674784	0.00129343	0.00044055	0.008	0.00395126	1.24E-02	0.00040507	0.002	0.00138294	3.79E-03	130.834545	0.00044803	0.00057077	46	57	0.004%		
LD12	Gasoline	0.0236423	0.14553353	1.34440289	0.00366775	0.00162115	0.008	0.00909155	1.87E-02	0.00149064	0.002	0.00318204	6.67E-03	371.003948	0.00547548	0.01004754	522,064	0	22.374%		
LD12	Diesel	0.02431618	0.17273781	0.24464843	0.00305858	0.0099819	0.008	0.00891973	2.69E-02	0.00955008	0.002	0.00312191	1.47E-02	322.787819	0.00112944	0.05085533	1,844	0	0.080%		
LD12	Electricity	0	0	0	0	0	0.008	0.00438874	1.24E-02	0	0.002	0.00152556	3.53E-03	0	0	0	0	1,768	0.076%		
LD12	Plug-in Hybrid	0.00148786	0.00329296	0.22771455	0.00136402	0.00057288	0.008	0.00393448	1.25E-02	0.00052674	0.002	0.00137707	3.90E-03	137.610606	0.00047239	0.00060281	1,639	1,824	0.148%		
LHD1	Gasoline	0.14766123	0.50224265	3.07465562	0.0094498	0.00318534	0.008	0.00780002	8.92E-02	0.0029288	0.002	0.00273001	3.22E-02	955.874982	0.02767912	0.02526272	64,361	0	2.758%		
LHD1	Diesel	0.28890079	3.31529394	0.89175384	0.00596323	0.006723705	0.012	0.07800002	1.57E-01	0.0643284	0.003	0.02730001	9.46E-02	629.330862	0.01341889	0.09915133	75,164	0	3.221%		
LHD1	Electricity	0	0	0	0	0	0.008	0.03390001	4.70E-02	0	0.002	0.011365	1.57E-02	0	0	0	0	148	0.066%		
LHD2	Gasoline	0.08420949	0.3458372	1.92022711	0.01400748	0.00231464	0.008	0.09100003	1.01E-01	0.00212823	0.002	0.03185001	3.60E-03	1052.74697	0.01628889	0.01867758	5,244	0	0.225%		
LHD2	Diesel	0.23359278	2.32651822	0.67697197	0.0073533	0.00596528	0.012	0.09100003	1.01E-01	0.05163077	0.003	0.03185001	8.65E-02	776.031813	0.01084994	0.12226413	26,892	0	1.152%		
LHD2	Electricity	0	0	0	0	0	0.008	0.04550001	5.35E-02	0	0.002	0.01592501	1.79E-02	0	0	0	0	36	0.002%		
MCY	Gasoline	1.68543654	0.77861322	18.5783156	0.00197403	0.00207015	0.004	0.012	1.81E-02	0.00194861	0.001	0.0042	7.15E-03	199.679399	0.23602486	0.04863385	11,578	0	0.496%		
MDV	Gasoline	0.03333044	0.19663971	1.5690411	0.00445404	0.0016899	0.008	0.00937412	1.91E-02	0.00155388	0.002	0.00328094	6.83E-03	450.539155	0.00733453	0.0126731	388,679	0	16.657%		
MDV	Diesel	0.02143689	0.13073344	0.34290039	0.00401418	0.00958337	0.008	0.00926468	2.68E-02	0.00916879	0.002	0.00324268	1.44E-02	423.637017	0.0009957	0.06674418	8,787	0	0.385%		
MDV	Electricity	0	0	0	0	0	0.008	0.00439933	1.24E-02	0	0.002	0.0012577	3.53E-03	0	0	0	0	2,000	0.086%		
MDV	Plug-in Hybrid	0.00154593	0.00342148	0.23613244	0.00141263	0.00062522	0.008	0.00392498	1.27E-02	0.00069624	0.002	0.00137374	4.07E-03	142.891685	0.00049261	0.00063058	1,219	1,261	0.106%		
MH	Gasoline	0.15793419	0.91328858	4.19711128	0.01875747	0.00262524	0.012	0.04552493	6.01E-02	0.00241133	0.003	0.01593373	2.13E-02	1897.37338	0.03321757	0.04632609	3,017	0	0.129%		
MH	Diesel	0.17056907	6.2721973	0.6414918	0.0102978	0.160875	0.01600001	0.04540237	2.22E-01	0.15391562	0.004	0.01589083	1.74E-01	1086.78112	0.00792261	0.17122281	1,199	0	0.051%		
Motor Coach	Diesel	0.01482509	1.74605553	0.07441664	0.01677999	0.03030244	0.012	0.07409835	1.16E-01	0.02899157	0.003	0.02593442	5.79E-02	1772.02246	0.00068859	0.27918286	569	0	0.024%		
OBUS	Gasoline	0.20262042	1.25783595	4.63019137	0.01787238	0.00133449	0.012	0.04540237	8.87E-02	0.00122702	0.003	0.01589083	2.01E-02	1807.84418	0.03915926	0.05257574	591	0	0.025%		
OBUS	Electricity	0	0	0	0	0	0.012	0.02270118	3.47E-02	0	0.003	0.00794541	1.09E-02	0	0	0	0	2	0.000%		
PTO	Diesel	0.03789932	3.6872831	0.34478524	0.02031039	0.00824691	0	0	0.25E-03	0.00789016	0	0	7.89E-03	2144.86554	0.00176033	0.33792444	1,390	0	0.060%		
PTO	Electricity	0	0	0	0	0	0	0	0.00E+00	0	0	0	0.00E+00	0	0	0	0	1	0.000%		
SBUS	Gasoline	0.12407683	1.05409903	3.09141908	0.00845136	0.00116013	0.008	0.0451539	5.43E-02	0.0010667	0.002	0.01580387	1.89E-02	854.880332	0.02511274	0.04861527	1,500	0	0.064%		
SBUS	Diesel	0.05627651	4.03097525	0.18320703	0.01047011	0.02157566	0.012	0.04491714	7.85E-02	0.02064231	0.003	0.015721	3.94E-02	1105.6784	0.0026139	0.17420008	2,079	0	0.089%		
SBUS	Electricity	0	0	0	0	0	0.012	0.0452385	3.40E-02	0	0.00288076	0.00786543	1.07E-02	0	0	0	0	7	0.000%		
T6 Instate Delivery Class 4	Diesel	0.14889521	2.15258631	0.43515844	0.01132769	0.06418731	0.012	0.04756293	1.24E-01	0.06141059	0.003	0.01664703	8.11E-02	1196.24158	0.0069158	0.18846835	485	0	0.021%		
T6 Instate Delivery Class 4	Electricity	0	0	0	0	0	0.012	0.02378147	3.58E-02	0	0.003	0.00832351	1.13E-02	0	0	0	0	2	0.000%		
T6 Instate Delivery Class 5	Diesel	0.009402	0.84965549	0.07775531	0.01120494	0.00341177	0.012	0.04756293	6.30E-02	0.00326418	0.003	0.01664703	2.29E-02	1183.27815	0.0004367	0.18442595	75	0	0.003%		
T6 Instate Delivery Class 5	Electricity	0	0	0	0	0	0.012	0.02378147	3.58E-02	0	0.003	0.00832351	1.13E-02	0	0	0	0	0	0.000%		
T6 Instate Delivery Class 6	Diesel	0.04957187	1.15342824	0.16908198	0.01129827	0.023767	0.012	0.04756293	8.33E-02	0.02273885	0.003	0.01664703	4.24E-02	1193.13441	0.00230249	0.18797881	520	0	0.022%		
T6 Instate Delivery Class 6	Electricity	0	0	0	0	0	0.012	0.02378147	3.58E-02	0	0.003	0.00832351	1.13E-02	0	0	0	0	1	0.000%		
T6 Instate Delivery Class 7	Diesel	0.01320847	0.89988703	0.08638993	0.01130655	0.00382869	0.012	0.04756293	6.34E-02	0.00366306	0.003	0.01664703	2.33E-02	1194.00922	0.0006135	0.18811644	256	0	0.011%		
T6 Instate Other Class 4	Diesel	0.08335489	1.97099304	0.25748042	0.01063848	0.04088823	0.012	0.04486375	9.78E-02	0.03911943	0.003	0.01570231	5.78E-02	1123.45879	0.00387162	0.17700139	2,712	0	0.116%		
T6 Instate Other Class 4	Electricity	0	0	0	0	0	0.012	0.02243187	3.44E-02	0	0.003	0.00785116	1.09E-02	0	0	0	0	10	0.000%		
T6 Instate Other Class 5	Diesel	0.01447524	0.72748724	0.07174101	0.01084581	0.00486375	0.012	0.04486375	6.43E-02	0.00711079	0.003	0.01570231	2.58E-02	1145.35316	0.00067234	0.18045086	5,135	0	0.220%		
T6 Instate Other Class 5	Electricity	0	0	0	0	0	0.012	0.02243187	3.44E-02	0	0.003	0.00785116	1.09E-02	0	0	0	0	8	0.000%		
T6 Instate Other Class 6	Diesel	0.07893792	1.93544604	0.25438506	0.01058258	0.03929233	0.012	0.04486375	9.62E-02	0.03759256	0.003	0.01570231	5.63E-02	1117.55553	0.00366646	0.17607133	2,092	0	0.090%		
T6 Instate Other Class 6	Electricity	0	0	0	0	0	0.012	0.02243187	3.44E-02	0	0.003	0.00785116</									

T6 Utility Class 5	Electricity	0	0	0	0	0	0.012	0.02274835	3.47E-02	0	0.003	0.00796192	1.10E-02	0	0	0	0	1	0.000%
T6 Utility Class 6	Diesel	0.00699769	0.52266381	0.05155503	0.01045034	0.00303176	0.012	0.0454967	6.05E-02	0.0029006	0.003	0.01592385	2.18E-02	1103.59032	0.00032502	0.1738711	22	0	0.001%
T6 Utility Class 6	Electricity	0	0	0	0	0	0.012	0.02274835	3.47E-02	0	0.003	0.00796192	1.10E-02	0	0	0	0	0	0.000%
T6 Utility Class 7	Diesel	0.00578466	0.44086095	0.04627761	0.01045385	0.00272045	0.012	0.0454967	6.02E-02	0.00260277	0.003	0.01592385	2.15E-02	1103.96141	0.00026866	0.17392957	31	0	0.001%
T6 Utility Class 7	Electricity	0	0	0	0	0	0.012	0.02274835	3.47E-02	0	0.003	0.00796192	1.10E-02	0	0	0	0	0	0.000%
T6TS	Gasoline	0.15902173	0.93269133	3.75105107	0.01753268	0.00176534	0.012	0.04552493	5.93E-02	0.00162316	0.003	0.01593373	2.06E-02	1773.48248	0.03021964	0.03952928	3,679	0	0.158%
T6TS	Electricity	0	0	0	0	0	0.012	0.02276247	3.48E-02	0	0.003	0.00796686	1.10E-02	0	0	0	0	13	0.001%
T7 CAIRP Class 8	Diesel	0.01300605	1.57017563	0.05892451	0.01461561	0.03278545	0.03600001	0.07409835	1.43E-01	0.03136717	0.009	0.02593442	6.63E-02	1543.45634	0.0006041	0.24317218	3,886	0	0.167%
T7 CAIRP Class 8	Electricity	0	0	0	0	0	0.03600001	0.03704917	7.30E-02	0	0.009	0.01296721	2.02E-02	0	0	0	0	20	0.001%
T7 NCO'S Class 8	Diesel	0.01245293	1.50721322	0.05161437	0.01444346	0.03104344	0.03600001	0.07409835	1.41E-01	0.02970051	0.009	0.02593442	6.44E-02	1525.27684	0.00057841	0.24030799	4,618	0	0.198%
T7 NCO'S Class 8	Diesel	0.01328441	1.40275793	0.05962023	0.01451466	0.0335222	0.03600001	0.07409835	1.44E-01	0.03207205	0.009	0.02593442	6.70E-02	1532.79536	0.00061703	0.24149253	1,478	0	0.072%
T7 Public Class 8	Diesel	0.13363647	9.71007962	0.43227273	0.01784288	0.05571232	0.03600001	0.11445694	2.08E-01	0.05521571	0.009	0.04005993	1.04E-01	1884.26669	0.00620707	0.29686698	2,885	0	0.124%
T7 Public Class 8	Electricity	0	0	0	0	0	0.03600001	0.04920819	8.52E-02	0	0.009	0.01722287	2.62E-02	0	0	0	0	13	0.001%
T7 Single Concrete /Transit Mix Cls	Diesel	0.01195444	1.21973601	0.06888852	0.01571484	0.01568692	0.03600001	0.08043621	1.32E-01	0.01500832	0.009	0.02815267	5.22E-02	1659.53893	0.00055525	0.26146103	738	0	0.032%
T7 Single Concrete /Transit Mix Cls	Electricity	0	0	0	0	0	0.03600001	0.04017726	7.62E-02	0	0.009	0.01406204	2.31E-02	0	0	0	0	7	0.000%
T7 Single Dump Class 8	Diesel	0.01849118	1.65945724	0.10269708	0.01603587	0.01922169	0.03600001	0.08046099	1.36E-01	0.01839017	0.009	0.02816135	5.56E-02	1693.4407	0.00085887	0.26480227	3,049	0	0.131%
T7 Single Other Class 8	Diesel	0.02704008	2.1503042	0.14804127	0.01559479	0.02361602	0.03600001	0.08055571	1.40E-01	0.0225944	0.009	0.0281945	5.98E-02	1646.86116	0.00125687	0.25946365	3,212	0	0.138%
T7 SWCV Class 8	Diesel	0.00897578	12.4312633	0.02543385	0.03780922	0.01210098	0.03600001	0.21000006	2.98E-01	0.01157575	0.009	0.07350002	9.41E-02	3992.77772	0.0004169	0.62906376	130	0	0.006%
T7 Tractor Class 8	Diesel	0.01529006	1.63056417	0.08401777	0.01474673	0.02343442	0.03600001	0.07842212	1.38E-01	0.02242065	0.009	0.02744774	5.89E-02	1557.30322	0.00071018	0.24535376	10,782	0	0.462%
T7 Tractor Class 8	Electricity	0	0	0	0	0	0.03600001	0.0391874	7.52E-02	0	0.009	0.01371559	2.27E-02	0	0	0	0	24	0.001%
T7 Utility Class 8	Diesel	0.01292029	1.32456303	0.13512014	0.01624771	0.00723285	0.03600001	0.09410702	1.37E-01	0.00691996	0.009	0.03293746	4.89E-02	1715.81117	0.00060011	0.27032675	92	0	0.004%
T7 Utility Class 8	Electricity	0	0	0	0	0	0.03600001	0.04705351	8.31E-02	0	0.009	0.01646673	2.53E-02	0	0	0	0	0	0.000%
T7S	Gasoline	1.53717771	11.306149	76.6506608	0.02055789	0.00324714	0.02000001	0.10147558	1.25E-01	0.00298562	0.005	0.03551645	4.53E-02	2079.49187	0.25097565	0.27026438	5	0	0.000%
T7S	Electricity	0	0	0	0	0	0.02000001	0.04555832	6.56E-02	0	0.005	0.01594541	2.09E-02	0	0	0	0	0	0.000%





Source: EMFAC2021 (v1.0.2) Emission Rates

Region Type: County

Region: Lake

Calendar Year: 2050

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Vehicle Category	Fuel	g/mile										PM2.5_RUNE	PM2.5_PMT	PM2.5_PMB	PM2.5_Total	CO2_RUNE	CH4_RUNE	N2O_RUNE	Combustion VMT	Electric VMT	% of VMT
		ROG_RUNEX	NOx_RUNEX	CO_RUNEX	SOx_RUNEX	PM10_RUNEX	PM10_PMTW	PM10_PMBW	PM10_Total	W	X										
		W	W	W	W	W	W	W	W	W	W										
All Other Buses	Diesel	0.03772945	0.91177799	0.15280258	0.00508303	0.01117969	0.012	0.0461373	6.93E-02	0.01069606	0.003	0.01614806	2.98E-02	1041.37901	0.00175244	0.16406969	427	0	0.017%		
LDA	Gasoline	0.00322318	0.02140304	0.5345398	0	0.0005296	0.008	0.00760194	1.61E-02	0.00048695	0.002	0.00266068	5.15E-03	229.532248	0.00111549	0.00345667	1,075,670	0	42.508%		
LDA	Diesel	0.00852359	0.03313098	0.22675836	0	0.00221264	0.008	0.00767003	1.79E-02	0.00211692	0.002	0.00268451	6.80E-03	187.131197	0.0003959	0.0294826	728	0	0.029%		
LDA	Electricity	0	0	0	0	0	0.008	0.00440044	1.24E-02	0	0.002	0.00154015	3.54E-03	0	0	0	0	148,641	5.874%		
LDA	Plug-in Hybrid	0.00128492	0.00284381	0.19570059	0	0.00021714	0.008	0.00403381	1.23E-02	0.00019965	0.002	0.00141183	3.61E-03	118.658189	0.00039281	0.00048424	20,773	30,062	2.009%		
LDT1	Gasoline	0.00340896	0.02234162	0.55596113	0	0.00057065	0.008	0.00914816	1.77E-02	0.00052469	0.002	0.00320185	5.73E-03	264.583506	0.00116259	0.00352733	62,462	0	2.468%		
LDT1	Diesel	0.01702584	0.03009873	0.18843661	0	0.00445521	0.008	0.00908456	2.15E-02	0.00426248	0.002	0.0031796	9.44E-03	334.340347	0.00079082	0.05267546	1	0	0.000%		
LDT1	Electricity	0	0	0	0	0	0.008	0.00440248	1.24E-02	0	0.002	0.00154094	3.54E-03	0	0	0	0	1,976	0.078%		
LDT1	Plug-in Hybrid	0.00127966	0.00283217	0.19490987	0	0.00020753	0.008	0.00403696	1.22E-02	0.00019082	0.002	0.00141294	3.60E-03	118.174491	0.00039167	0.00048339	618	901	0.060%		
LDT2	Gasoline	0.00444059	0.02409591	0.62176029	0	0.00055165	0.008	0.00914252	1.77E-02	0.00050722	0.002	0.00319988	5.71E-03	275.026735	0.00147062	0.00367562	622,929	0	24.616%		
LDT2	Diesel	0.01722524	0.03276592	0.19321701	0	0.0045921	0.008	0.00914486	2.17E-02	0.00439344	0.002	0.0032007	5.95E-03	249.36525	0.00080008	0.0392876	2,397	0	0.095%		
LDT2	Electricity	0	0	0	0	0	0.008	0.00440439	1.24E-02	0	0.002	0.00154154	3.54E-03	0	0	0	0	17,279	0.683%		
LDT2	Plug-in Hybrid	0.00128294	0.00283943	0.19536317	0	0.00021397	0.008	0.00403794	1.23E-02	0.00019674	0.002	0.00141328	3.61E-03	118.468624	0.00039117	0.00048102	6,936	10,064	0.672%		
LHD1	Gasoline	0.00420269	0.02371753	0.59815987	0.00107839	0.00121093	0.008	0.00800022	8.72E-02	0.0011134	0.002	0.02730001	3.04E-02	757.216944	0.00124235	0.00192525	25,243	0	0.998%		
LHD1	Diesel	0.09528327	0.33965058	0.24743424	0.00113129	0.02132405	0.012	0.07800002	1.11E-01	0.02040158	0.003	0.02730001	5.07E-02	607.423987	0.00442573	0.0956999	11,216	0	0.443%		
LHD1	Electricity	0	0	0	0	0	0.008	0.03900001	4.70E-02	0	0.002	0.01365	1.57E-02	0	0	0	0	29,719	1.174%		
LHD2	Gasoline	0.00338892	0.0192994	0.60160583	0.00121722	0.0012573	0.008	0.09100003	1.00E-01	0.00115604	0.002	0.03185001	3.50E-02	837.081061	0.00106679	0.00210951	1,716	0	0.068%		
LHD2	Diesel	0.13402175	0.60782871	0.3565418	0.00189488	0.03178628	0.012	0.09100003	1.35E-01	0.03041122	0.003	0.03185001	6.53E-02	724.257494	0.00622505	0.11410706	6,024	0	0.238%		
LHD2	Electricity	0	0	0	0	0	0.008	0.04550001	5.35E-02	0	0.002	0.01592501	1.79E-02	0	0	0	0	5,693	0.225%		
MCV	Gasoline	0.86899174	0.49669464	10.5950009	0	0.00220665	0.004	0.012	1.82E-02	0.00205701	0.001	0.0042	7.26E-03	188.814915	0.14386512	0.03679421	7,232	0	0.286%		
MDV	Gasoline	0.00451003	0.0245144	0.63214144	0	0.0005417	0.008	0.0092196	1.78E-02	0.00049807	0.002	0.00322686	5.72E-03	332.543118	0.00148725	0.00370076	343,709	0	13.582%		
MDV	Diesel	0.00699709	0.01528976	0.21335433	0	0.00133283	0.008	0.00929856	1.86E-02	0.00127517	0.002	0.0032545	6.53E-03	327.72299	0.000325	0.05163289	3,906	0	0.154%		
MDV	Electricity	0	0	0	0	0	0.008	0.00440927	1.24E-02	0	0.002	0.00154325	3.54E-03	0	0	0	0	15,443	0.610%		
MDV	Plug-in Hybrid	0.00128218	0.00283774	0.19528954	0	0.00021329	0.008	0.00404088	1.23E-02	0.00019611	0.002	0.00141431	3.61E-03	118.406352	0.00039097	0.00048085	4,216	6,123	0.409%		
MH	Gasoline	0.00763795	0.02158189	0.15448321	0	0.00139753	0.012	0.04552493	5.89E-02	0.00128498	0.003	0.01593373	2.02E-02	1890.31039	0.00273161	0.01785339	645	0	0.025%		
MH	Diesel	0.08302234	0.261112793	0.23971275	0	0.02364173	0.01600001	0.04540237	8.50E-02	0.022619	0.004	0.01589083	4.25E-02	1098.9756	0.00385623	0.17314405	399	0	0.016%		
Motor Coach	Diesel	0.01053882	0.91841035	0.03567991	0.07836892	0.0235133	0.012	0.08179845	1.17E-01	0.02249612	0.003	0.02862946	5.41E-02	1523.08817	0.0004895	0.23996316	656	0	0.026%		
OBUS	Gasoline	0.00610489	0.26515616	0.16245385	0.0033439	0.00131113	0.012	0.04540237	5.87E-02	0.00120554	0.003	0.01589083	2.01E-02	1517.35483	0.00169765	0.01540045	193	0	0.008%		
OBUS	Electricity	0	0	0	0	0	0.012	0.02270118	3.47E-02	0	0.003	0.00794541	1.09E-02	0	0	0	0	264	0.010%		
PTO	Diesel	0.03319337	4.14977785	0.35008795	0	0.00656287	0	0	6.56E-03	0.00627896	0	0	6.28E-03	2020.69033	0.00154175	0.31836058	1,187	0	0.047%		
PTO	Electricity	0	0	0	0	0	0	0	0.00E+00	0	0	0	0.00E+00	0	0	0	0	446	0.018%		
SBUS	Gasoline	0.00796166	0.07878083	0.1788253	0.02232079	0.00131602	0.008	0.0451539	5.45E-02	0.00121003	0.002	0.01580387	1.90E-02	704.579294	0.001885	0.00780031	150	0	0.066%		
SBUS	Diesel	0.00593533	0.27676889	0.05005115	0.01709719	0.00298933	0.012	0.04491714	5.99E-02	0.00286002	0.003	0.015721	1.16E-02	1018.68855	0.00027568	0.1604948	957	0	0.038%		
SBUS	Electricity	0	0	0	0	0	0.0115327	0.0224724	3.40E-02	0	0.00288318	0.00786534	1.07E-02	0	0	0	0	1,277	0.050%		
T6 Instate Delivery Class 4	Diesel	0.00601894	0.34305538	0.05260253	0.01645606	0.00187785	0.012	0.04756293	6.14E-02	0.00179662	0.003	0.01664703	2.14E-02	1037.85353	0.00027956	0.16351425	255	0	0.010%		
T6 Instate Delivery Class 4	Electricity	0	0	0	0	0	0.012	0.02378147	3.58E-02	0	0.003	0.00832351	1.13E-02	0	0	0	0	316	0.012%		
T6 Instate Delivery Class 5	Diesel	0.00602004	0.34835855	0.05284151	0.01646922	0.00188045	0.012	0.04756293	6.14E-02	0.0017991	0.003	0.01664703	2.14E-02	1037.74766	0.00027962	0.16349757	39	0	0.002%		
T6 Instate Delivery Class 5	Electricity	0	0	0	0	0	0.012	0.02378147	3.58E-02	0	0.003	0.00832351	1.13E-02	0	0	0	0	49	0.002%		
T6 Instate Delivery Class 6	Diesel	0.00605508	0.34675218	0.05260525	0.016482	0.00188965	0.012	0.04756293	6.15E-02	0.0018079	0.003	0.01664703	2.15E-02	1038.9186	0.00028124	0.16368205	271	0	0.011%		
T6 Instate Delivery Class 6	Electricity	0	0	0	0	0	0.012	0.02378147	3.58E-02	0	0.003	0.00832351	1.13E-02	0	0	0	0	339	0.013%		
T6 Instate Delivery Class 7	Diesel	0.00788957	0.51932425	0.06595549	0.01728125	0.00236941	0.012	0.04756293	6.19E-02	0.00226691	0.003	0.01664703	2.19E-02	1076.33294	0.00036645	0.16957669	180	0	0.007%		
T6 Instate Delivery Class 7	Electricity	0	0	0	0	0	0.012	0.02378147	3.58E-02	0	0.003	0.00832351	1.13E-02	0	0	0	0	120	0.005%		
T6 Instate Other Class 4	Diesel	0.00545638	0.26489025	0.04206915	0.01769053	0.00308086	0.012	0.04486375	5.99E-02	0.00294758	0.003	0.01570231	2.16E-02	1004.98038	0.00025344	0.15833507	1,387	0	0.055%		
T6 Instate Other Class 4	Electricity	0	0	0	0	0	0.012	0.02243187	3.44E-02	0	0.003	0.00785116	1.09E-02	0	0	0	0	1,804	0.071%		
T6 Instate Other Class 5	Diesel	0.00546279	0.26235367	0.04196401	0.01770045	0.00307514	0.012	0.04486375	5.99E-02	0.00294211	0.003	0.01570231	2.16E-02	1005.8643	0.00025373	0.15847433	2,615	0	0.103%		
T6 Instate Other Class 5	Electricity	0	0	0	0	0	0.012	0.02243187	3.44E-02	0	0.003	0.00785116	1.09E-02	0	0	0	0	3,414	0.135%		
T6 Instate Other Class 6	Diesel	0.00546203	0.26945109	0.04212342	0.01768925	0.00310358	0.012	0.04486375	6.00E-02	0.00296932	0.003	0.01570231	2.17E-02	1004.89971	0.0002537	0.158322					

T6 Utility Class 5	Diesel	0.00504592	0.19026194	0.03523784	0.01327436	0.00229988	0.012	0.0454967	5.98E-02	0.00220039	0.003	0.01592385	2.11E-02	1014.09962	0.00023437	0.15977181	50	0	0.002%
T6 Utility Class 5	Electricity	0	0	0	0	0	0.012	0.02274835	3.47E-02	0	0.003	0.00796192	1.10E-02	0	0	0	0	77	0.003%
T6 Utility Class 6	Diesel	0.00504586	0.18676562	0.03523745	0.01327439	0.0022886	0.012	0.0454967	5.98E-02	0.0021896	0.003	0.01592385	2.11E-02	1014.10096	0.00023437	0.15977202	9	0	0.000%
T6 Utility Class 6	Electricity	0	0	0	0	0	0.012	0.02274835	3.47E-02	0	0.003	0.00796192	1.10E-02	0	0	0	0	15	0.001%
T6 Utility Class 7	Diesel	0.00499811	0.18165493	0.03490399	0.01327424	0.00227621	0.012	0.0454967	5.98E-02	0.00217774	0.003	0.01592385	2.11E-02	1015.11454	0.00023213	0.15993171	13	0	0.001%
T6 Utility Class 7	Electricity	0	0	0	0	0	0.012	0.02274835	3.47E-02	0	0.003	0.00796192	1.10E-02	0	0	0	0	20	0.001%
T6TS	Gasoline	0.01018037	0.0752181	0.17857922	0.00452371	0.00141728	0.012	0.04552493	5.89E-02	0.00130313	0.003	0.01593373	2.02E-02	1496.3572	0.00267318	0.00730938	1,923	0	0.076%
T6TS	Electricity	0	0	0	0	0	0.012	0.02276247	3.48E-02	0	0.003	0.00796686	1.10E-02	0	0	0	0	2,192	0.087%
T7 CAIRP Class 8	Diesel	0.01152259	1.22270816	0.03896773	0.18974565	0.03015813	0.03600001	0.08188357	1.48E-01	0.0288553	0.009	0.02865925	6.65E-02	1275.6612	0.00053519	0.20098094	3,748	0	0.148%
T7 CAIRP Class 8	Electricity	0	0	0	0	0	0.03600001	0.04094935	7.69E-02	0	0.009	0.01433227	2.33E-02	0	0	0	0	1,050	0.042%
T7 NNOOS Class 8	Diesel	0.01121599	1.34636162	0.03794308	0.22608546	0.02983117	0.03600001	0.0818723	1.48E-01	0.02854069	0.009	0.0286553	6.62E-02	1222.9063	0.00052095	0.19266939	5,674	0	0.224%
T7 NOOS Class 8	Diesel	0.01157816	1.3859703	0.03915484	0.22600038	0.03159562	0.03600001	0.08188533	1.49E-01	0.03022881	0.009	0.02865986	6.79E-02	1222.45936	0.00053778	0.19259897	2,061	0	0.081%
T7 Public Class 8	Diesel	0.02308787	1.4515069	0.13823549	0.02381602	0.00809383	0.03600001	0.10714913	1.51E-01	0.0077437	0.009	0.0375022	5.42E-02	1583.1092	0.00107237	0.2494195	1,684	0	0.067%
T7 Public Class 8	Electricity	0	0	0	0	0	0.03600001	0.05430552	9.03E-02	0	0.009	0.01900693	2.80E-02	0	0	0	0	1,446	0.057%
T7 Single Concrete/Transit Mix Class 8	Diesel	0.00858219	0.80234654	0.04340749	0.03457449	0.0135242	0.03600001	0.08875721	1.38E-01	0.01293915	0.009	0.03106502	5.30E-02	1442.86862	0.00039862	0.22732454	351	0	0.014%
T7 Single Concrete/Transit Mix Class 8	Electricity	0	0	0	0	0	0.03600001	0.04439099	8.04E-02	0	0.009	0.01553685	2.45E-02	0	0	0	0	488	0.019%
T7 Single Dump Class 8	Diesel	0.0099287	1.03457671	0.05152019	0.03603957	0.01679949	0.03600001	0.08786717	1.41E-01	0.01607275	0.009	0.03075351	5.58E-02	1470.70385	0.00046116	0.23170999	1,682	0	0.066%
T7 Single Dump Class 8	Electricity	0	0	0	0	0	0.03600001	0.04438695	8.04E-02	0	0.009	0.01553543	2.45E-02	0	0	0	0	1,757	0.069%
T7 Single Other Class 8	Diesel	0.02509367	2.49371097	0.15061555	0.04620214	0.02931293	0.03600001	0.08037456	1.46E-01	0.02804487	0.009	0.0281311	6.52E-02	1653.55102	0.00116554	0.26051764	3,946	0	0.156%
T7 SWCV Class 8	Diesel	0.02367673	0.28095259	0.05141964	0.02534344	0.01803606	0.03600001	0.21000006	2.64E-01	0.01725583	0.009	0.07350002	9.98E-02	3057.63867	0.00109972	0.48173222	73	0	0.003%
T7 SWCV Class 8	Electricity	0	0	0	0	0	0.03600001	0.10500003	1.41E-01	0	0.009	0.03675001	4.58E-02	0	0	0	0	67	0.003%
T7 Tractor Class 8	Diesel	0.01024351	1.18994756	0.04779059	0.06284327	0.02200305	0.03600001	0.08618677	1.44E-01	0.02105121	0.009	0.03016537	6.02E-02	1265.25343	0.00047579	0.19934119	11,066	0	0.437%
T7 Tractor Class 8	Electricity	0	0	0	0	0	0.03600001	0.0432953	7.93E-02	0	0.009	0.01515336	2.42E-02	0	0	0	0	2,210	0.087%
T7 Utility Class 8	Diesel	0.01112672	1.06926136	0.10152935	0.01256538	0.00734139	0.03600001	0.10167814	1.45E-01	0.0070238	0.009	0.03558735	5.16E-02	1533.3689	0.00051681	0.2415829	52	0	0.002%
T7 Utility Class 8	Electricity	0	0	0	0	0	0.03600001	0.05194662	8.79E-02	0	0.009	0.01818132	2.72E-02	0	0	0	0	48	0.002%
T7IS	Gasoline	0.34930392	2.48423554	32.3527357	0	0.0011611	0.02000001	0.10020367	1.21E-01	0.00106758	0.005	0.03507128	4.11E-02	1615.44523	0.07763531	0.10578328	6	0	0.000%
T7IS	Electricity	0	0	0	0	0	0.02000001	0.05030409	7.03E-02	0	0.005	0.01760643	2.26E-02	0	0	0	0	7	0.000%

Source: EMFAC2021 (v1.0.2) Emission Rates  
 Region Type: County  
 Region: Lake  
 Calendar Year: 2050  
 Season: Annual  
 Vehicle Classification: EMFAC202x Category:  
 Units: miles/day for CVMT and EVMT, trips/d

		lbs/Mile																1.0E-06
Vehicle Category	Fuel	ROG_RUNEX	NOx_RUNEX	CO_RUNEX	SOx_RUNEX	PM10_RUNEX	PM10_PMTW	PM10_PMBW	PM10_Total	PM2.5_RUNE	PM2.5_PMT	PM2.5_PMB	PM2.5_Total	CO2(Pavley+ AACC)_RUNE	CH4_RUNEX	N2O_RUNEX		
All Other Buses	Diesel	8.318E-05	2.010E-03	3.369E-04	1.121E-05	2.465E-05	2.646E-05	1.017E-04	1.528E-04	2.358E-05	6.614E-06	3.560E-05	6.579E-05	2.296E+00	3.863E-06	3.617E-04		
LDA	Gasoline	7.106E-06	4.719E-05	1.178E-03	0.000E+00	1.168E-06	1.764E-05	1.676E-05	3.556E-05	1.074E-06	4.409E-06	5.866E-06	1.135E-05	5.060E-01	2.459E-06	7.621E-06		
LDA	Diesel	1.879E-05	7.304E-05	4.999E-04	0.000E+00	4.878E-06	1.764E-05	1.691E-05	3.942E-05	4.667E-06	4.409E-06	5.918E-06	1.499E-05	4.125E-01	8.728E-07	6.500E-05		
LDA	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.764E-05	9.701E-06	2.734E-05	0.000E+00	4.409E-06	3.395E-06	7.805E-06	0.000E+00	0.000E+00	0.000E+00		
LDA	Plug-in Hybrid	2.833E-06	6.269E-06	4.314E-04	0.000E+00	4.787E-07	1.764E-05	8.893E-06	2.701E-05	4.401E-07	4.409E-06	3.113E-06	7.962E-06	2.616E-01	8.660E-07	1.068E-06		
LDT1	Gasoline	7.515E-06	4.925E-05	1.226E-03	0.000E+00	1.258E-06	1.764E-05	2.017E-05	3.906E-05	1.157E-06	4.409E-06	7.059E-06	1.262E-05	5.833E-01	2.563E-06	7.776E-06		
LDT1	Diesel	3.754E-05	6.636E-05	4.154E-04	0.000E+00	9.822E-06	1.764E-05	2.003E-05	4.749E-05	9.397E-06	4.409E-06	7.010E-06	2.082E-05	7.371E-01	1.743E-06	1.161E-04		
LDT1	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.764E-05	9.705E-06	2.734E-05	0.000E+00	4.409E-06	3.397E-06	7.804E-06	0.000E+00	0.000E+00	0.000E+00		
LDT1	Plug-in Hybrid	2.821E-06	6.244E-06	4.297E-04	0.000E+00	4.575E-07	1.764E-05	8.900E-06	2.699E-05	4.207E-07	4.409E-06	3.115E-06	7.945E-06	2.605E-01	8.635E-07	1.066E-06		
LDT2	Gasoline	9.790E-06	5.312E-05	1.371E-03	0.000E+00	1.216E-06	1.764E-05	2.016E-05	3.901E-05	1.118E-06	4.409E-06	7.054E-06	1.258E-05	6.063E-01	3.242E-06	8.103E-06		
LDT2	Diesel	3.797E-05	7.224E-05	4.260E-04	0.000E+00	1.012E-05	1.764E-05	2.016E-05	4.792E-05	9.686E-06	4.409E-06	7.056E-06	2.115E-05	5.498E-01	1.764E-06	8.661E-05		
LDT2	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.764E-05	9.710E-06	2.735E-05	0.000E+00	4.409E-06	3.398E-06	7.808E-06	0.000E+00	0.000E+00	0.000E+00		
LDT2	Plug-in Hybrid	2.828E-06	6.260E-06	4.307E-04	0.000E+00	4.717E-07	1.764E-05	8.902E-06	2.701E-05	4.337E-07	4.409E-06	3.116E-06	7.959E-06	2.612E-01	8.624E-07	1.060E-06		
LHD1	Gasoline	9.265E-06	5.229E-05	1.319E-03	2.377E-06	2.670E-06	1.764E-05	1.720E-04	1.923E-04	2.455E-06	4.409E-06	6.019E-05	6.705E-05	1.669E+00	2.739E-06	4.244E-06		
LHD1	Diesel	2.101E-04	7.488E-04	5.455E-04	2.494E-06	4.701E-05	2.646E-05	1.720E-04	2.454E-04	4.498E-05	6.614E-06	6.019E-05	1.118E-04	1.339E+00	9.575E-06	2.110E-04		
LHD1	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.764E-05	8.598E-05	1.036E-04	0.000E+00	4.409E-06	3.009E-05	3.450E-05	0.000E+00	0.000E+00	0.000E+00		
LHD2	Gasoline	7.471E-06	4.255E-05	1.326E-03	2.683E-06	2.772E-06	1.764E-05	2.006E-04	2.210E-04	2.549E-06	4.409E-06	7.022E-05	7.717E-05	1.845E+00	2.352E-06	4.651E-06		
LHD2	Diesel	2.955E-04	1.340E-03	7.860E-04	4.177E-06	7.008E-05	2.646E-05	2.006E-04	2.971E-04	6.704E-05	6.614E-06	7.022E-05	1.439E-04	1.597E+00	1.372E-05	2.516E-04		
LHD2	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.764E-05	1.003E-04	1.179E-04	0.000E+00	4.409E-06	3.511E-05	3.952E-05	0.000E+00	0.000E+00	0.000E+00		
MCY	Gasoline	1.916E-03	1.095E-03	2.336E-02	0.000E+00	4.865E-06	8.818E-06	2.646E-05	4.014E-05	4.535E-06	2.205E-06	9.259E-06	1.600E-05	4.163E-01	3.172E-04	8.112E-05		
MDV	Gasoline	9.943E-06	5.404E-05	1.394E-03	0.000E+00	1.194E-06	1.764E-05	2.033E-05	3.916E-05	1.098E-06	4.409E-06	7.114E-06	1.262E-05	7.331E-01	3.279E-06	8.159E-06		
MDV	Diesel	1.543E-05	3.371E-05	4.704E-04	0.000E+00	2.938E-06	1.764E-05	2.050E-05	4.107E-05	2.811E-06	4.409E-06	7.175E-06	1.440E-05	7.225E-01	7.165E-07	1.138E-04		
MDV	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.764E-05	9.721E-06	2.736E-05	0.000E+00	4.409E-06	3.402E-06	7.811E-06	0.000E+00	0.000E+00	0.000E+00		
MDV	Plug-in Hybrid	2.827E-06	6.256E-06	4.305E-04	0.000E+00	4.702E-07	1.764E-05	8.909E-06	2.702E-05	4.323E-07	4.409E-06	3.118E-06	7.960E-06	2.610E-01	8.619E-07	1.060E-06		
MH	Gasoline	1.684E-05	4.738E-04	3.406E-04	0.000E+00	3.081E-06	2.646E-05	1.004E-04	1.299E-04	2.833E-06	6.614E-06	3.513E-05	4.457E-05	4.167E+00	6.022E-06	3.936E-05		
MH	Diesel	1.830E-04	5.756E-03	5.285E-04	0.000E+00	5.212E-05	3.527E-05	1.001E-04	1.875E-04	4.987E-05	8.818E-06	3.503E-05	9.372E-05	2.423E+00	8.501E-06	3.817E-04		
Motor Coach	Diesel	2.323E-05	2.025E-03	7.866E-05	1.728E-04	5.184E-05	2.646E-05	1.803E-04	2.586E-04	4.959E-05	6.614E-06	6.312E-05	1.193E-04	3.358E+00	1.079E-06	5.290E-04		
OBUS	Gasoline	1.346E-05	5.846E-04	3.581E-04	7.372E-06	2.891E-06	2.646E-05	1.001E-04	1.294E-04	2.658E-06	6.614E-06	3.503E-05	4.430E-05	3.345E+00	3.743E-06	3.395E-05		
OBUS	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.646E-05	5.005E-05	7.650E-05	0.000E+00	6.614E-06	1.752E-05	2.413E-05	0.000E+00	0.000E+00	0.000E+00		
PTO	Diesel	7.318E-05	9.149E-03	7.718E-04	0.000E+00	1.447E-05	0.000E+00	0.000E+00	1.447E-05	1.384E-05	0.000E+00	0.000E+00	1.384E-05	4.455E+00	3.399E-06	7.019E-04		
PTO	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
SBUS	Gasoline	1.755E-05	1.373E-04	3.942E-04	4.921E-05	2.901E-06	1.764E-05	9.955E-05	1.201E-04	2.668E-06	4.409E-06	3.484E-05	4.192E-05	1.553E+00	4.156E-06	1.720E-05		
SBUS	Diesel	1.308E-05	6.102E-04	1.103E-04	3.769E-05	6.590E-06	2.646E-05	9.902E-05	1.321E-04	6.305E-06	6.614E-06	3.466E-05	4.758E-05	2.246E+00	6.078E-07	3.538E-04		
SBUS	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.542E-05	4.954E-05	7.497E-05	0.000E+00	6.356E-06	1.734E-05	2.370E-05	0.000E+00	0.000E+00	0.000E+00		
T6 Instate Delivery Class 4	Diesel	1.327E-05	7.563E-04	1.160E-04	3.628E-05	4.140E-06	2.646E-05	1.049E-04	1.355E-04	3.961E-06	6.614E-06	3.670E-05	4.727E-05	2.288E+00	6.163E-07	3.605E-04		
T6 Instate Delivery Class 4	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.646E-05	5.243E-05	7.888E-05	0.000E+00	6.614E-06	1.835E-05	2.496E-05	0.000E+00	0.000E+00	0.000E+00		
T6 Instate Delivery Class 5	Diesel	1.327E-05	7.680E-04	1.165E-04	3.631E-05	4.146E-06	2.646E-05	1.049E-04	1.355E-04	3.966E-06	6.614E-06	3.670E-05	4.728E-05	2.288E+00	6.164E-07	3.604E-04		
T6 Instate Delivery Class 5	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.646E-05	5.243E-05	7.888E-05	0.000E+00	6.614E-06	1.835E-05	2.496E-05	0.000E+00	0.000E+00	0.000E+00		
T6 Instate Delivery Class 6	Diesel	1.335E-05	7.644E-04	1.160E-04	3.634E-05	4.166E-06	2.646E-05	1.049E-04	1.355E-04	3.966E-06	6.614E-06	3.670E-05	4.730E-05	2.290E+00	6.200E-07	3.609E-04		
T6 Instate Delivery Class 6	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.646E-05	5.243E-05	7.888E-05	0.000E+00	6.614E-06	1.835E-05	2.496E-05	0.000E+00	0.000E+00	0.000E+00		
T6 Instate Delivery Class 7	Diesel	1.739E-05	1.145E-03	1.454E-04	3.810E-05	5.224E-06	2.646E-05	1.049E-04	1.365E-04	4.998E-06	6.614E-06	3.670E-05	4.831E-05	2.373E+00	8.079E-07	3.738E-04		
T6 Instate Delivery Class 7	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.646E-05	5.243E-05	7.888E-05	0.000E+00	6.614E-06	1.835E-05	2.496E-05	0.000E+00	0.000E+00	0.000E+00		
T6 Instate Other Class 4	Diesel	1.203E-05	5.840E-04	9.275E-05	3.900E-05	6.792E-06	2.646E-05	9.891E-05	1.322E-04	6.498E-06	6.614E-06	3.462E-05	4.773E-05	2.216E+00	5.587E-07	3.491E-04		
T6 Instate Other Class 4	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.646E-05	4.945E-05	7.195E-05	0.000E+00	6.614E-06	1.731E-05	2.392E-05	0.000E+00	0.000E+00	0.000E+00		
T6 Instate Other Class 5	Diesel	1.204E-05	5.784E-04	9.251E-05	3.902E-05	6.779E-06	2.646E-05	9.891E-05	1.321E-04	6.486E-06	6.614E-06	3.462E-05	4.772E-05	2.218E+00	5.594E-07	3.494E-04		
T6 Instate Other Class 5	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.646E-05	4.945E-05	7.191E-05	0.000E+00	6.614E-06	1.731E-05	2.392E-05	0.000E+00	0.000E+00	0.000E+00		
T6 Instate Other Class 6	Diesel	1.204E-05	5.940E-04	9.287E-05	3.900E-05	6.842E-06	2.646E-05	9.891E-05	1.322E-04	6.546E-06	6.614E-06	3.462E-05	4.778E-05	2.215E+00	5.593E-07	3.490E-04		
T6 Instate Other Class 6	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.646E-05	4.945E-05	7.191E-05	0.000E+00	6.614E-06	1.731E-05	2.392E-05	0.000E+00	0.000E+00	0.000E+00		
T6 Instate Other Class 7	Diesel	1.618																

T6 Utility Class 5	Diesel	1.112E-05	4.195E-04	7.769E-05	2.926E-05	5.070E-06	2.646E-05	1.003E-04	1.318E-04	4.851E-06	6.614E-06	3.511E-05	4.657E-05	2.236E+00	5.167E-07	3.522E-04	
T6 Utility Class 5	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.646E-05	5.015E-05	7.661E-05	0.000E+00	6.614E-06	1.755E-05	2.417E-05	0.000E+00	0.000E+00	0.000E+00	
T6 Utility Class 6	Diesel	1.112E-05	4.117E-04	7.768E-05	2.926E-05	5.045E-06	2.646E-05	1.003E-04	1.318E-04	4.827E-06	6.614E-06	3.511E-05	4.655E-05	2.236E+00	5.167E-07	3.522E-04	
T6 Utility Class 6	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.646E-05	5.015E-05	7.661E-05	0.000E+00	6.614E-06	1.755E-05	2.417E-05	0.000E+00	0.000E+00	0.000E+00	
T6 Utility Class 7	Diesel	1.102E-05	4.005E-04	7.695E-05	2.926E-05	5.018E-06	2.646E-05	1.003E-04	1.318E-04	4.801E-06	6.614E-06	3.511E-05	4.652E-05	2.238E+00	5.118E-07	3.526E-04	
T6 Utility Class 7	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.646E-05	5.015E-05	7.661E-05	0.000E+00	6.614E-06	1.755E-05	2.417E-05	0.000E+00	0.000E+00	0.000E+00	
T6TS	Gasoline	2.244E-05	1.658E-04	3.937E-04	9.973E-06	3.125E-06	2.646E-05	1.004E-04	1.299E-04	2.873E-06	6.614E-06	3.513E-05	4.461E-05	3.299E+00	5.893E-06	1.611E-05	
T6TS	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.646E-05	5.018E-05	7.664E-05	0.000E+00	6.614E-06	1.756E-05	2.418E-05	0.000E+00	0.000E+00	0.000E+00	
T7 CAIRP Class 8	Diesel	2.540E-05	2.696E-03	8.591E-05	4.183E-04	6.649E-05	7.937E-05	1.805E-04	3.264E-04	6.361E-05	1.984E-05	6.318E-05	1.466E-04	2.812E+00	1.180E-06	4.431E-04	
T7 CAIRP Class 8	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.937E-05	9.028E-05	1.696E-04	0.000E+00	1.984E-05	3.160E-05	5.144E-05	0.000E+00	0.000E+00	0.000E+00	
T7 NNOOS Class 8	Diesel	2.473E-05	2.968E-03	8.365E-05	4.984E-04	6.577E-05	7.937E-05	1.805E-04	3.256E-04	6.292E-05	1.984E-05	6.317E-05	1.459E-04	2.696E+00	1.148E-06	4.248E-04	
T7 NOOS Class 8	Diesel	2.553E-05	3.056E-03	8.632E-05	4.982E-04	6.966E-05	7.937E-05	1.805E-04	3.295E-04	6.664E-05	1.984E-05	6.318E-05	1.497E-04	2.695E+00	1.186E-06	4.246E-04	
T7 Public Class 8	Diesel	5.090E-05	3.200E-03	3.048E-04	5.250E-05	1.784E-05	7.937E-05	2.362E-04	3.334E-04	1.707E-05	1.984E-05	8.268E-05	1.196E-04	3.490E+00	2.364E-06	5.499E-04	
T7 Public Class 8	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.937E-05	1.197E-04	1.991E-04	0.000E+00	1.984E-05	4.190E-05	6.174E-05	0.000E+00	0.000E+00	0.000E+00	
T7 Single Concrete/Transit Mix Class 8	Diesel	1.892E-05	1.769E-03	9.570E-05	7.622E-05	2.982E-05	7.937E-05	1.957E-04	3.049E-04	2.853E-05	1.984E-05	6.849E-05	1.169E-04	3.181E+00	8.788E-07	5.012E-04	
T7 Single Concrete/Transit Mix Class 8	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.937E-05	9.786E-05	1.772E-04	0.000E+00	1.984E-05	3.425E-05	5.409E-05	0.000E+00	0.000E+00	0.000E+00	
T7 Single Dump Class 8	Diesel	2.189E-05	2.281E-03	1.136E-04	7.945E-05	3.704E-05	7.937E-05	1.937E-04	3.101E-04	3.543E-05	1.984E-05	6.780E-05	1.231E-04	3.242E+00	1.017E-06	5.108E-04	
T7 Single Dump Class 8	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.937E-05	9.786E-05	1.772E-04	0.000E+00	1.984E-05	3.425E-05	5.409E-05	0.000E+00	0.000E+00	0.000E+00	
T7 Single Other Class 8	Diesel	5.532E-05	5.498E-03	3.320E-04	1.019E-04	6.462E-05	7.937E-05	1.772E-04	3.212E-04	6.183E-05	1.984E-05	6.202E-05	1.437E-04	3.645E+00	2.570E-06	5.743E-04	
T7 SWCV Class 8	Diesel	5.220E-05	6.194E-04	1.134E-04	5.587E-05	3.976E-05	7.937E-05	4.630E-04	5.821E-04	3.804E-05	1.984E-05	1.620E-04	2.199E-04	6.741E+00	2.424E-06	1.062E-03	
T7 SWCV Class 8	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.937E-05	2.315E-04	3.108E-04	0.000E+00	1.984E-05	8.102E-05	1.009E-04	0.000E+00	0.000E+00	0.000E+00	
T7 Tractor Class 8	Diesel	2.258E-05	2.623E-03	1.054E-04	1.385E-04	4.851E-05	7.937E-05	1.900E-04	3.179E-04	4.641E-05	1.984E-05	6.650E-05	1.328E-04	2.789E+00	1.049E-06	4.395E-04	
T7 Tractor Class 8	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.937E-05	9.545E-05	1.748E-04	0.000E+00	1.984E-05	3.341E-05	5.325E-05	0.000E+00	0.000E+00	0.000E+00	
T7 Utility Class 8	Diesel	2.453E-05	2.357E-03	2.238E-04	2.770E-05	1.618E-05	7.937E-05	2.242E-04	3.197E-04	1.548E-05	1.984E-05	7.846E-05	1.138E-04	3.380E+00	1.139E-06	5.326E-04	
T7 Utility Class 8	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.937E-05	1.145E-04	1.939E-04	0.000E+00	1.984E-05	4.008E-05	5.992E-05	0.000E+00	0.000E+00	0.000E+00	
T7IS	Gasoline	7.701E-04	5.477E-03	7.132E-02	0.000E+00	2.560E-06	4.409E-05	2.209E-04	2.676E-04	2.354E-06	1.102E-05	7.732E-05	9.069E-05	3.561E+00	1.712E-04	2.332E-04	
T7IS	Electricity	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.409E-05	1.109E-04	1.550E-04	0.000E+00	1.102E-05	3.882E-05	4.984E-05	0.000E+00	0.000E+00	0.000E+00	

Source: EMFAC2021 (v1.0.2) Emission Rates

Region Type: County

Region: Lake

Calendar Year: 2050

Season: Annual

Vehicle Classification: EMFAC202x Category:

Units: miles/day for CVMT and EVMT, trips/d

Vehicle Category	Fuel	MTons/Mile		
		CO2(Pavley+ AACC)_RUNE X	CH4_RUNEX	N2O_RUNEX
All Other Buses	Diesel	1.041E-03	1.752E-09	1.641E-07
LDA	Gasoline	2.295E-04	1.115E-09	3.457E-09
LDA	Diesel	1.871E-04	3.959E-10	2.948E-08
LDA	Electricity	0.000E+00	0.000E+00	0.000E+00
LDA	Plug-in Hybrid	1.187E-04	3.928E-10	4.842E-10
LDT1	Gasoline	2.646E-04	1.163E-09	3.527E-09
LDT1	Diesel	3.343E-04	7.908E-10	5.268E-08
LDT1	Electricity	0.000E+00	0.000E+00	0.000E+00
LDT1	Plug-in Hybrid	1.182E-04	3.917E-10	4.834E-10
LDT2	Gasoline	2.750E-04	1.471E-09	3.676E-09
LDT2	Diesel	2.494E-04	8.001E-10	3.929E-08
LDT2	Electricity	0.000E+00	0.000E+00	0.000E+00
LDT2	Plug-in Hybrid	1.185E-04	3.912E-10	4.810E-10
LHD1	Gasoline	7.572E-04	1.242E-09	1.925E-09
LHD1	Diesel	6.074E-04	4.426E-09	9.570E-08
LHD1	Electricity	0.000E+00	0.000E+00	0.000E+00
LHD2	Gasoline	8.371E-04	1.067E-09	2.110E-09
LHD2	Diesel	7.243E-04	6.225E-09	1.141E-07
LHD2	Electricity	0.000E+00	0.000E+00	0.000E+00
MCY	Gasoline	1.888E-04	1.439E-07	3.679E-08
MDV	Gasoline	3.325E-04	1.487E-09	3.701E-09
MDV	Diesel	3.277E-04	3.250E-10	5.163E-08
MDV	Electricity	0.000E+00	0.000E+00	0.000E+00
MDV	Plug-in Hybrid	1.184E-04	3.910E-10	4.809E-10
MH	Gasoline	1.890E-03	2.732E-09	1.785E-08
MH	Diesel	1.099E-03	3.856E-09	1.731E-07
Motor Coach	Diesel	1.523E-03	4.895E-10	2.400E-07
OBUS	Gasoline	1.517E-03	1.698E-09	1.540E-08
OBUS	Electricity	0.000E+00	0.000E+00	0.000E+00
PTO	Diesel	2.021E-03	1.542E-09	3.184E-07
PTO	Electricity	0.000E+00	0.000E+00	0.000E+00
SBUS	Gasoline	7.046E-04	1.885E-09	7.800E-09
SBUS	Diesel	1.019E-03	2.757E-10	1.605E-07
SBUS	Electricity	0.000E+00	0.000E+00	0.000E+00
T6 Instate Delivery Class 4	Diesel	1.038E-03	2.796E-10	1.635E-07
T6 Instate Delivery Class 4	Electricity	0.000E+00	0.000E+00	0.000E+00
T6 Instate Delivery Class 5	Diesel	1.038E-03	2.796E-10	1.635E-07
T6 Instate Delivery Class 5	Electricity	0.000E+00	0.000E+00	0.000E+00
T6 Instate Delivery Class 6	Diesel	1.039E-03	2.812E-10	1.637E-07
T6 Instate Delivery Class 6	Electricity	0.000E+00	0.000E+00	0.000E+00
T6 Instate Delivery Class 7	Diesel	1.076E-03	3.665E-10	1.696E-07
T6 Instate Delivery Class 7	Electricity	0.000E+00	0.000E+00	0.000E+00
T6 Instate Other Class 4	Diesel	1.005E-03	2.534E-10	1.583E-07
T6 Instate Other Class 4	Electricity	0.000E+00	0.000E+00	0.000E+00
T6 Instate Other Class 5	Diesel	1.006E-03	2.537E-10	1.585E-07
T6 Instate Other Class 5	Electricity	0.000E+00	0.000E+00	0.000E+00
T6 Instate Other Class 6	Diesel	1.005E-03	2.537E-10	1.583E-07
T6 Instate Other Class 6	Electricity	0.000E+00	0.000E+00	0.000E+00
T6 Instate Other Class 7	Diesel	1.016E-03	3.408E-10	1.600E-07
T6 Instate Other Class 7	Electricity	0.000E+00	0.000E+00	0.000E+00
T6 Instate Tractor Class 6	Diesel	1.004E-03	2.502E-10	1.582E-07
T6 Instate Tractor Class 6	Electricity	0.000E+00	0.000E+00	0.000E+00
T6 Instate Tractor Class 7	Diesel	9.310E-04	3.119E-10	1.467E-07
T6 Instate Tractor Class 7	Electricity	0.000E+00	0.000E+00	0.000E+00
T6 Public Class 4	Diesel	1.075E-03	3.988E-10	1.694E-07
T6 Public Class 4	Electricity	0.000E+00	0.000E+00	0.000E+00
T6 Public Class 5	Diesel	1.082E-03	4.435E-10	1.705E-07
T6 Public Class 5	Electricity	0.000E+00	0.000E+00	0.000E+00
T6 Public Class 6	Diesel	1.075E-03	4.344E-10	1.694E-07
T6 Public Class 6	Electricity	0.000E+00	0.000E+00	0.000E+00
T6 Public Class 7	Diesel	1.061E-03	3.873E-10	1.671E-07
T6 Public Class 7	Electricity	0.000E+00	0.000E+00	0.000E+00

T6 Utility Class 5	Diesel	1.014E-03	2.344E-10	1.598E-07
T6 Utility Class 5	Electricity	0.000E+00	0.000E+00	0.000E+00
T6 Utility Class 6	Diesel	1.014E-03	2.344E-10	1.598E-07
T6 Utility Class 6	Electricity	0.000E+00	0.000E+00	0.000E+00
T6 Utility Class 7	Diesel	1.015E-03	2.321E-10	1.599E-07
T6 Utility Class 7	Electricity	0.000E+00	0.000E+00	0.000E+00
T6TS	Gasoline	1.496E-03	2.673E-09	7.309E-09
T6TS	Electricity	0.000E+00	0.000E+00	0.000E+00
T7 CAIRP Class 8	Diesel	1.276E-03	5.352E-10	2.010E-07
T7 CAIRP Class 8	Electricity	0.000E+00	0.000E+00	0.000E+00
T7 NNOOS Class 8	Diesel	1.223E-03	5.210E-10	1.927E-07
T7 NOOS Class 8	Diesel	1.222E-03	5.378E-10	1.926E-07
T7 Public Class 8	Diesel	1.583E-03	1.072E-09	2.494E-07
T7 Public Class 8	Electricity	0.000E+00	0.000E+00	0.000E+00
T7 Single Concrete/Transit Mix Class 8	Diesel	1.443E-03	3.986E-10	2.273E-07
T7 Single Concrete/Transit Mix Class 8	Electricity	0.000E+00	0.000E+00	0.000E+00
T7 Single Dump Class 8	Diesel	1.471E-03	4.612E-10	2.317E-07
T7 Single Dump Class 8	Electricity	0.000E+00	0.000E+00	0.000E+00
T7 Single Other Class 8	Diesel	1.654E-03	1.166E-09	2.605E-07
T7 SWCV Class 8	Diesel	3.058E-03	1.100E-09	4.817E-07
T7 SWCV Class 8	Electricity	0.000E+00	0.000E+00	0.000E+00
T7 Tractor Class 8	Diesel	1.265E-03	4.758E-10	1.993E-07
T7 Tractor Class 8	Electricity	0.000E+00	0.000E+00	0.000E+00
T7 Utility Class 8	Diesel	1.533E-03	5.168E-10	2.416E-07
T7 Utility Class 8	Electricity	0.000E+00	0.000E+00	0.000E+00
T7IS	Gasoline	1.615E-03	7.764E-08	1.058E-07
T7IS	Electricity	0.000E+00	0.000E+00	0.000E+00

## Criteria Air Pollutants from Residential Propane Use

Rate	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	lbs/MMBTU					
Propane	0.0110	0.1420	0.0820	0.0000	0.0080	0.0080

Sources:

California Air Pollution Control Officer's Association (CAPCOA). 2022, April. California Emissions Estimator Model (CalEEMod) User's Guide Version 2022.1. <https://www.caleemod.com/user-guide>. Table G-23, Hearth Emission Factors.

### Residential Propane Energy Data for Lake County

(Lake County) Percent of Houses Using Bottled, Tank, or LP Gas for House Heating Fuels: <sup>a</sup>	18.8%
Statewide Propane Consumption in 2020 (MMBTU): <sup>b</sup>	58,200,000
Statewide Occupied Housing Units in 2023: <sup>a</sup>	13,699,816
(California) Percent of Houses Using Bottled, Tank, or LP Gas for House Heating Fuels: <sup>a</sup>	3.6%
Statewide per Housing Unit Annual Consumption (MMBTU):	118.01

Source:

<sup>a</sup> United States Census Bureau, Selected Housing Characteristics, County of Lake, 2023. Table DP04. 2022 American Community Survey 5-Year Estimate Data Profiles, Year structure built. [https://data.census.gov/table?q=DP04&g=040XX00US06\\_050XX00US06033](https://data.census.gov/table?q=DP04&g=040XX00US06_050XX00US06033)

<sup>b</sup> U.S. Energy Information Administration. 2023. California State Energy Profile, California Energy Consumption Estimates, 2020, <https://www.eia.gov/state/print.php?sid=CA>. Accessed March 3, 2025.

**Non-Residential Natural Gas Consumption Factors (Used for Propane Consumption)**

Land Use	CalEEMod Default Natural Gas Consumption Factor (kBtu/year) <sup>1</sup>		
Commercial Uses (average)	37.0856		
Industrial Uses (average)	25.8284		
Office Uses (average)	23.3117		
Land Use <sup>2</sup>	Existing (Square Feet)	Proposed (Square Feet)	Growth (Square Feet)
Commercial	3,841,147	4,551,771	410,683
Industrial	1,690,474	2,003,217	180,740
Office	5,503,908	6,522,147	588,460
<b>Total</b>	<b>11,035,530</b>	<b>13,077,135</b>	<b>1,179,883</b>
Sources: California Air Pollution Control Officer's Association (CAPCOA). 2022, April. California Emissions Estimator Model (CalEEMod) User's Guide Version 2022.1. <a href="https://www.caleemod.com/user-guide">https://www.caleemod.com/user-guide</a> . Table G-28, Annual Energy use by Land Use Subtype. Notes: <sup>1</sup> Natural gas consumption factors for each non-residential land use sector are based on an average of the consumption factors for each CalEEMod landuse sub-type within the larger land use type shown in CAPCOA 2022, Table G-5. Retail uses were aggregated with commercial uses for the "commercial" land use in this table while the "office" land use in the table constitutes commercial land uses with an office land use subtype. <sup>2</sup> Non-residential square footage is based on a square footage per employee factor calculated by dividing the growth in non-residential square footage under the proposed General Plan (2,040,956 square feet) by the growth in jobs under the proposed General Plan (3,195 jobs). The percentages of the growth for each non-residential sector were applied to the existing and proposed non-residential square footage totals to estimate the proportion of each non-residential category.			

Lake County Propane Use	Existing	Proposed Project	Growth
		MMBTU	
Residential	2,242,123	2,693,025	450,903
Non-Residential	314,419	372,587	33,617
<b>Total</b>	<b>2,556,542</b>	<b>3,065,613</b>	<b>484,519</b>

Existing Emissions	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Propane</b>	<b>Existing lbs/day</b>					
Nonresidential	9	122	71	0	7	7
Residential	68	872	504	0	49	49
<b>Total</b>	<b>77</b>	<b>995</b>	<b>574</b>	<b>0</b>	<b>56</b>	<b>56</b>

Project 2050 Emissions	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Propane</b>	<b>Proposed Project lbs/day</b>					
Nonresidential	11	145	84	0	8	8
Residential	81	1,048	605	0	59	59
<b>Total</b>	<b>92</b>	<b>1,193</b>	<b>689</b>	<b>0</b>	<b>67</b>	<b>67</b>

## Lake County Community GHG Emissions Inventory and Forecast

Category	Existing		GP 2050 (Proposed Project)		Net Change from Existing	
	Unincorporated County		Unincorporated County		TOTAL	
Transportation	163,451	48%	133,300	43%	-30,151	-18%
Energy - Electricity	26,084	8%	0	0%	-26,084	-100%
Energy - Propane	15,766	5%	18,906	6%	3,139	20%
Solid Waste (Waste Commitment)	42,725	13%	51,128	16%	8,403	20%
Water/Wastewater	3,210	1%	2,609	1%	-600	-19%
Area - Hearths (Propane & Woodburning)	59,600	18%	71,328	23%	11,729	20%
Other - Offroad Construction Equipment	4,497	1%	4,539	1%	42	1%
Other - Commercial and Light Industrial	1,568	0%	1,318	0%	-250	-16%
Other - Lawn and Garden Equipment	837	0%	99	0%	-738	-88%
Refrigerants	22,263	7%	26,740	9%	4,477	20%
<b>Total Community Emissions</b>	<b>340,000</b>	100%	<b>309,967</b>	100%	<b>-30,033</b>	<b>-9%</b>
Service Population (SP)	62,870	NA	75,235	NA	12,365	NA
MTCO <sub>2</sub> e/SP	5.4	NA	4.1	NA	<b>-1.3</b>	NA

Notes: Emissions may not total to 100 percent due to rounding. Based on GWPs in the IPCC Fifth Assessment Report (AR5).

The emissions inventory and forecast is based on activity data for unincorporated Lake County. This emissions inventory methodology identifies GHG emissions produced within a jurisdiction and captures direct and indirect emissions generated by land uses in a community. The activity data methodology allows a direct comparison between a community's GHG emissions and that identified by CARB in the AB 32 and SB 32 inventory and forecast prepared for the scoping plan. Unlike a "consumption-based" GHG emissions inventory, an activity-based emissions inventory does not capture lifecycle emissions associated with consumptions of goods. While a consumption-based emissions inventory approach may document GHG emissions associated with the final demand (regardless of where the were generated), a consumption-based emissions inventory excludes emissions associated with products produced within the jurisdiction but consumed elsewhere. For these reasons, an activity-based emissions inventory was determined to be most applicable for determining significant impacts under CEQA.

Note: Excludes GHG emissions natural gas use within the County due to limited availability of natural gas infrastructure.

# Year 2024 Existing: Mobile GHG Emissions

Source: EMFAC2021 Version 1.0.2. PL Emission Rates. Lake County

1. Based on data provided Fehr & Peers 2025.

2. Adjusted Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the 2008 Climate Change Scoping Plan Measure

## Fleet Mix - EMFAC Default

Passenger Vehicles	90%	Trucks	10%
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Annual VMT	400,397,054		CO2	CH4	N2O	CO2e
			AR5 GWP	AR5 GWP	AR5 GWP	
				1	28	265
				MT/Year		
Vehicle Type	Fuel Type	Percent of VMT	CO2	CH4	N2O	CO2e
All Other Buses	Diesel	0.02%	80.09	0.00	0.01	83.45
LDA	Gasoline	41.01%	48,775.34	0.88	1.29	49,143.01
LDA	Diesel	0.24%	237.88	0.00	0.04	247.89
LDA	Electricity	1.83%	0.00	0.00	0.00	0.00
LDA	Plug-in Hybrid	1.06%	612.62	0.00	0.00	613.39
LDT1	Gasoline	5.35%	7,763.04	0.35	0.44	7,889.34
LDT1	Diesel	0.00%	5.01	0.00	0.00	5.23
LDT1	Electricity	0.01%	0.00	0.00	0.00	0.00
LDT1	Plug-in Hybrid	0.00%	2.31	0.00	0.00	2.31
LDT2	Gasoline	22.37%	33,235.78	0.49	0.90	33,488.04
LDT2	Diesel	0.08%	103.22	0.00	0.02	107.54
LDT2	Electricity	0.08%	0.00	0.00	0.00	0.00
LDT2	Plug-in Hybrid	0.15%	81.77	0.00	0.00	81.87
LHD1	Gasoline	2.76%	10,556.68	0.31	0.28	10,639.18
LHD1	Diesel	3.22%	8,116.87	0.17	1.28	8,460.60
LHD1	Electricity	0.01%	0.00	0.00	0.00	0.00
LHD2	Gasoline	0.22%	947.32	0.01	0.02	952.19
LHD2	Diesel	1.15%	3,580.98	0.05	0.56	3,731.89
LHD2	Electricity	0.00%	0.00	0.00	0.00	0.00
MCY	Gasoline	0.50%	396.72	0.47	0.10	435.46
MDV	Gasoline	16.66%	30,048.72	0.49	0.85	30,286.40
MDV	Diesel	0.39%	653.32	0.00	0.10	680.64
MDV	Electricity	0.09%	0.00	0.00	0.00	0.00
MDV	Plug-in Hybrid	0.11%	60.81	0.00	0.00	60.89
MH	Gasoline	0.13%	982.18	0.02	0.02	989.01
MH	Diesel	0.05%	223.57	0.00	0.04	232.95
Motor Coach	Diesel	0.02%	172.92	0.00	0.03	180.14
OBUS	Gasoline	0.03%	183.43	0.00	0.01	184.96
OBUS	Electricity	0.00%	0.00	0.00	0.00	0.00
PTO	Diesel	0.06%	511.46	0.00	0.08	532.82
PTO	Electricity	0.00%	0.00	0.00	0.00	0.00
SBUS	Gasoline	0.06%	219.99	0.01	0.01	223.49
SBUS	Diesel	0.09%	394.46	0.00	0.06	410.96
SBUS	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Instate Delivery Class 4	Diesel	0.02%	99.49	0.00	0.02	103.66
T6 Instate Delivery Class 4	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Instate Delivery Class 5	Diesel	0.00%	15.28	0.00	0.00	15.92
T6 Instate Delivery Class 5	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Instate Delivery Class 6	Diesel	0.02%	106.51	0.00	0.02	110.96
T6 Instate Delivery Class 6	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Instate Delivery Class 7	Diesel	0.01%	52.42	0.00	0.01	54.61
T6 Instate Other Class 4	Diesel	0.12%	522.74	0.00	0.08	544.61
T6 Instate Other Class 4	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Instate Other Class 5	Diesel	0.22%	1,009.18	0.00	0.16	1,051.33
T6 Instate Other Class 5	Electricity	0.00%	0.00	0.00	0.00	0.00

# Year 2024 Existing: Mobile GHG Emissions

Source: EMFAC2021 Version 1.0.2. PL Emission Rates. Lake County

1. Based on data provided Fehr & Peers 2025.

2. Adjusted Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the 2008 Climate Change Scoping Plan Measure

## Fleet Mix - EMFAC Default

Passenger Vehicles	90%	Trucks	10%
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			CO2	CH4	N2O	
			AR5 GWP	AR5 GWP	AR5 GWP	
			1	28	265	
<b>Annual VMT</b>			<b>400,397,054</b>			<b>MT/Year</b>
Vehicle Type	Fuel Type	Percent of VMT	CO2	CH4	N2O	CO2e
T6 Instate Other Class 6	Diesel	0.09%	401.25	0.00	0.06	418.04
T6 Instate Other Class 6	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Instate Other Class 7	Diesel	0.12%	535.92	0.00	0.08	558.31
T6 Instate Tractor Class 6	Diesel	0.00%	11.62	0.00	0.00	12.11
T6 Instate Tractor Class 6	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Instate Tractor Class 7	Diesel	0.02%	72.11	0.00	0.01	75.12
T6 Public Class 4	Diesel	0.03%	158.24	0.00	0.02	164.86
T6 Public Class 4	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Public Class 5	Diesel	0.02%	105.22	0.00	0.02	109.61
T6 Public Class 5	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Public Class 6	Diesel	0.02%	117.72	0.00	0.02	122.65
T6 Public Class 6	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Public Class 7	Diesel	0.06%	297.69	0.00	0.05	310.16
T6 Public Class 7	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Utility Class 5	Diesel	0.00%	22.12	0.00	0.00	23.04
T6 Utility Class 5	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Utility Class 6	Diesel	0.00%	4.16	0.00	0.00	4.33
T6 Utility Class 6	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Utility Class 7	Diesel	0.00%	5.79	0.00	0.00	6.03
T6 Utility Class 7	Electricity	0.00%	0.00	0.00	0.00	0.00
T6TS	Gasoline	0.16%	1,119.52	0.02	0.02	1,126.66
T6TS	Electricity	0.00%	0.00	0.00	0.00	0.00
T7 CAIRP Class 8	Diesel	0.17%	1,029.16	0.00	0.16	1,072.14
T7 CAIRP Class 8	Electricity	0.00%	0.00	0.00	0.00	0.00
T7 NNOOS Class 8	Diesel	0.20%	1,208.74	0.00	0.19	1,259.22
T7 NOOS Class 8	Diesel	0.07%	441.28	0.00	0.07	459.71
T7 Public Class 8	Diesel	0.12%	932.96	0.00	0.15	972.00
T7 Public Class 8	Electricity	0.00%	0.00	0.00	0.00	0.00
T7 Single Concrete/Transit Mix Class 8	Diesel	0.03%	210.02	0.00	0.03	218.79
T7 Single Concrete/Transit Mix Class 8	Electricity	0.00%	0.00	0.00	0.00	0.00
T7 Single Dump Class 8	Diesel	0.13%	885.98	0.00	0.14	922.99
T7 Single Other Class 8	Diesel	0.14%	907.70	0.00	0.14	945.62
T7 SWCV Class 8	Diesel	0.01%	89.17	0.00	0.01	92.89
T7 Tractor Class 8	Diesel	0.46%	2,881.19	0.00	0.45	3,001.52
T7 Tractor Class 8	Electricity	0.00%	0.00	0.00	0.00	0.00
T7 Utility Class 8	Diesel	0.00%	27.20	0.00	0.00	28.34
T7 Utility Class 8	Electricity	0.00%	0.00	0.00	0.00	0.00
T7IS	Gasoline	0.00%	1.72	0.00	0.00	1.79
T7IS	Electricity	0.00%	0.00	0.00	0.00	0.00
		100%	161,218.64	3.30	8.07	163,451

# Year 2050 Existing: Mobile GHG Emissions

Source: EMFAC2021 Version 1.0.2. PL Emission Rates. Lake County

1. Based on data provided Fehr & Peers 2025.

2. Adjusted Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the 2008 Climate Change Scoping Plan Measure

## Fleet Mix - EMFAC Default

Passenger Vehicles	94%	Trucks	6%
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<b>CO2</b>	<b>CH4</b>	<b>N2O</b>
<b>AR5 GWP</b>	<b>AR5 GWP</b>	<b>AR5 GWP</b>
1	28	265

<b>Annual VMT</b>	<b>511,675,964</b>	<b>MT/Year</b>
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Vehicle Type	Fuel Type	Percent of VMT	CO2	CH4	N2O	CO2e
All Other Buses	Diesel	0.02%	90.00	0.00	0.01	93.76
LDA	Gasoline	42.51%	49,923.48	0.24	0.75	50,129.51
LDA	Diesel	0.03%	27.56	0.00	0.00	28.71
LDA	Electricity	5.87%	0.00	0.00	0.00	0.00
LDA	Plug-in Hybrid	2.01%	1,219.67	0.00	0.00	1,221.11
LDT1	Gasoline	2.47%	3,341.67	0.01	0.04	3,353.88
LDT1	Diesel	0.00%	0.05	0.00	0.00	0.05
LDT1	Electricity	0.08%	0.00	0.00	0.00	0.00
LDT1	Plug-in Hybrid	0.06%	36.30	0.00	0.00	36.34
LDT2	Gasoline	24.62%	34,641.40	0.19	0.46	34,769.28
LDT2	Diesel	0.09%	120.84	0.00	0.02	125.90
LDT2	Electricity	0.68%	0.00	0.00	0.00	0.00
LDT2	Plug-in Hybrid	0.67%	407.23	0.00	0.00	407.71
LHD1	Gasoline	1.00%	3,864.96	0.01	0.01	3,867.75
LHD1	Diesel	0.44%	1,377.63	0.01	0.22	1,435.42
LHD1	Electricity	1.17%	0.00	0.00	0.00	0.00
LHD2	Gasoline	0.07%	290.47	0.00	0.00	290.68
LHD2	Diesel	0.24%	882.12	0.01	0.14	919.16
LHD2	Electricity	0.22%	0.00	0.00	0.00	0.00
MCY	Gasoline	0.29%	276.12	0.21	0.05	296.27
MDV	Gasoline	13.58%	23,111.16	0.10	0.26	23,182.21
MDV	Diesel	0.15%	258.86	0.00	0.04	269.67
MDV	Electricity	0.61%	0.00	0.00	0.00	0.00
MDV	Plug-in Hybrid	0.41%	247.53	0.00	0.00	247.82
MH	Gasoline	0.03%	246.59	0.00	0.00	247.21
MH	Diesel	0.02%	88.65	0.00	0.01	92.36
Motor Coach	Diesel	0.03%	201.89	0.00	0.03	210.32
OBUS	Gasoline	0.01%	59.34	0.00	0.00	59.51
OBUS	Electricity	0.01%	0.00	0.00	0.00	0.00
PTO	Diesel	0.05%	485.12	0.00	0.08	505.38
PTO	Electricity	0.02%	0.00	0.00	0.00	0.00
SBUS	Gasoline	0.01%	21.43	0.00	0.00	21.49
SBUS	Diesel	0.04%	197.10	0.00	0.03	205.33
SBUS	Electricity	0.05%	0.00	0.00	0.00	0.00
T6 Instate Delivery Class 4	Diesel	0.01%	53.46	0.00	0.01	55.70
T6 Instate Delivery Class 4	Electricity	0.01%	0.00	0.00	0.00	0.00
T6 Instate Delivery Class 5	Diesel	0.00%	8.25	0.00	0.00	8.59
T6 Instate Delivery Class 5	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Instate Delivery Class 6	Diesel	0.01%	57.00	0.00	0.01	59.38
T6 Instate Delivery Class 6	Electricity	0.01%	0.00	0.00	0.00	0.00
T6 Instate Delivery Class 7	Diesel	0.01%	39.16	0.00	0.01	40.80
T6 Instate Delivery Class 7	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Instate Other Class 4	Diesel	0.05%	281.79	0.00	0.04	293.56
T6 Instate Other Class 4	Electricity	0.07%	0.00	0.00	0.00	0.00
T6 Instate Other Class 5	Diesel	0.10%	531.92	0.00	0.08	554.13

# Year 2050 Existing: Mobile GHG Emissions

Source: EMFAC2021 Version 1.0.2. PL Emission Rates. Lake County

1. Based on data provided Fehr & Peers 2025.

2. Adjusted Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the 2008 Climate Change Scoping Plan Measure

## Fleet Mix - EMFAC Default

Passenger Vehicles	94%	Trucks	6%
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<b>CO2</b>	<b>CH4</b>	<b>N2O</b>
<b>AR5 GWP</b>	<b>AR5 GWP</b>	<b>AR5 GWP</b>
1	28	265

<b>Annual VMT</b>	<b>511,675,964</b>	<b>MT/Year</b>
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Vehicle Type	Fuel Type	Percent of VMT	CO2	CH4	N2O	CO2e
T6 Instate Other Class 5	Electricity	0.13%	0.00	0.00	0.00	0.00
T6 Instate Other Class 6	Diesel	0.04%	217.74	0.00	0.03	226.84
T6 Instate Other Class 6	Electricity	0.05%	0.00	0.00	0.00	0.00
T6 Instate Other Class 7	Diesel	0.07%	377.46	0.00	0.06	393.23
T6 Instate Other Class 7	Electricity	0.06%	0.00	0.00	0.00	0.00
T6 Instate Tractor Class 6	Diesel	0.00%	6.35	0.00	0.00	6.62
T6 Instate Tractor Class 6	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Instate Tractor Class 7	Diesel	0.01%	68.19	0.00	0.01	71.04
T6 Instate Tractor Class 7	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Public Class 4	Diesel	0.02%	83.51	0.00	0.01	86.99
T6 Public Class 4	Electricity	0.02%	0.00	0.00	0.00	0.00
T6 Public Class 5	Diesel	0.01%	56.14	0.00	0.01	58.48
T6 Public Class 5	Electricity	0.01%	0.00	0.00	0.00	0.00
T6 Public Class 6	Diesel	0.01%	62.81	0.00	0.01	65.44
T6 Public Class 6	Electricity	0.01%	0.00	0.00	0.00	0.00
T6 Public Class 7	Diesel	0.03%	177.62	0.00	0.03	185.04
T6 Public Class 7	Electricity	0.03%	0.00	0.00	0.00	0.00
T6 Utility Class 5	Diesel	0.00%	10.17	0.00	0.00	10.60
T6 Utility Class 5	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Utility Class 6	Diesel	0.00%	1.92	0.00	0.00	2.00
T6 Utility Class 6	Electricity	0.00%	0.00	0.00	0.00	0.00
T6 Utility Class 7	Diesel	0.00%	2.65	0.00	0.00	2.76
T6 Utility Class 7	Electricity	0.00%	0.00	0.00	0.00	0.00
T6TS	Gasoline	0.08%	581.92	0.00	0.00	582.70
T6TS	Electricity	0.09%	0.00	0.00	0.00	0.00
T7 CAIRP Class 8	Diesel	0.15%	966.85	0.00	0.15	1,007.23
T7 CAIRP Class 8	Electricity	0.04%	0.00	0.00	0.00	0.00
T7 NNOOS Class 8	Diesel	0.22%	1,402.95	0.00	0.22	1,461.54
T7 NOOS Class 8	Diesel	0.08%	509.48	0.00	0.08	530.76
T7 Public Class 8	Diesel	0.07%	539.17	0.00	0.08	561.70
T7 Public Class 8	Electricity	0.06%	0.00	0.00	0.00	0.00
T7 Single Concrete/Transit Mix Class 8	Diesel	0.01%	102.47	0.00	0.02	106.75
T7 Single Concrete/Transit Mix Class 8	Electricity	0.02%	0.00	0.00	0.00	0.00
T7 Single Dump Class 8	Diesel	0.07%	500.26	0.00	0.08	521.15
T7 Single Dump Class 8	Electricity	0.07%	0.00	0.00	0.00	0.00
T7 Single Other Class 8	Diesel	0.16%	1,319.38	0.00	0.21	1,374.49
T7 SWCV Class 8	Diesel	0.00%	45.33	0.00	0.01	47.22
T7 SWCV Class 8	Electricity	0.00%	0.00	0.00	0.00	0.00
T7 Tractor Class 8	Diesel	0.44%	2,831.08	0.00	0.45	2,949.31
T7 Tractor Class 8	Electricity	0.09%	0.00	0.00	0.00	0.00
T7 Utility Class 8	Diesel	0.00%	16.19	0.00	0.00	16.87
T7 Utility Class 8	Electricity	0.00%	0.00	0.00	0.00	0.00
T7IS	Gasoline	0.00%	2.06	0.00	0.00	2.10
T7IS	Electricity	0.00%	0.00	0.00	0.00	0.00
		100%	132,270.47	0.79	3.80	133,300

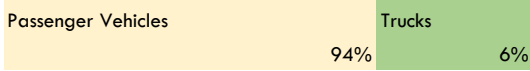
# Year 2050 Existing: Mobile GHG Emissions

Source: EMFAC2021 Version 1.0.2. PL Emission Rates. Lake County

1. Based on data provided Fehr & Peers 2025.

2. Adjusted Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the 2008 Climate Change Scoping Plan Measure

## Fleet Mix - EMFAC Default



CO2 AR5 GWP	CH4 AR5 GWP	N2O AR5 GWP
1	28	265

<b>Annual VMT</b>	<b>511,675,964</b>	<b>MT/Year</b>
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Vehicle Type	Fuel Type	Percent of VMT	CO2	CH4	N2O	CO2e
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# Lake County

## Energy Emission Factors - Power and Heating Fuels

<b>Pacific Gas &amp; Electric (Electricity)</b>				
	<b>Intensity factor</b>			<b>CO<sub>2</sub>e</b>
	CO <sub>2</sub> lbs/MWH	CH <sub>4</sub> lbs/MWH	N <sub>2</sub> O lbs/MWH	lbs/MWh
<b>2024</b>	203.983	0.033	0.004	<b>205.967</b>
<b>2050<sup>1</sup></b>	0.000	0.000	0.000	<b>0.000</b>
	<b>Intensity factor</b>			<b>CO<sub>2</sub>e</b>
	CO <sub>2</sub> MTons/MWH	CH <sub>4</sub> MTons/MWH	N <sub>2</sub> O MTons/MWH	MTons/MWh
<b>2024</b>	0.093	0.000	0.000	<b>0.093</b>
<b>2050<sup>1</sup></b>	0.000	0.000	0.000	<b>0.000</b>

Source: California Air Pollution Control Officer's Association (CAPCOA). 2022, April. California Emissions Estimator Model (CalEEMod) User's Guide Version 2022.1. <https://www.caleemod.com/user-guide>. Table G-3, Electricity Utility Greenhouse Gas Emissions Factors

Notes

<sup>1</sup> In 2018, SB 100 (de León, 2018) was signed into law, which again increases the RPS to 60% by 2030 and encourages the state's electricity to come from carbon-free resources by 2045. Therefore, the carbon intensity of electricity use in 2050 is assumed to be 0 lbs per mega-watt hour.

<b>Propane Emission Factors</b>	<b>lbs/MMBTU</b>	<b>lbs/MMBTU</b>	<b>lbs/MMBTU</b>	<b>lbs/MMBTU</b>
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	<b>CO<sub>2</sub>e</b>
All Years	135	7.00E-03	1.00E-03	<b>135.957</b>
	<b>MT/MMBTU</b>	<b>MT/MMBTU</b>	<b>MT/MMBTU</b>	<b>MT/MMBTU</b>
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	<b>CO<sub>2</sub>e</b>
All Years	0.00615	3.18E-07	4.54E-08	<b>0.006</b>

Source: California Air Pollution Control Officer's Association (CAPCOA). 2022, April. California Emissions Estimator Model (CalEEMod) User's Guide Version 2022.1. <https://www.caleemod.com/user-guide>. Table G-23, Hearth Emission Factors.

## GHG Emissions from Energy Use

Electricity Use	PG&E
	MWH/YR
	Average
Residential	191,636
Nonresidential	87,561
Total	279,197
MTCO <sub>2e</sub> /Yr	
Residential	17,904
Nonresidential	8,180
Total	26,084

Forecast Methodology	Existing	Proposed Project	Growth
Nonresidential - Square footage	11,035,530	13,077,135	2,041,605
Employment - Jobs	17,270	20,465	3,195
Residential - Dwelling Units	19,000	22,821	3,821

Note: Non-residential square footage is based on a square footage per employee factor calculated by dividing the growth in non-residential square footage under the proposed General Plan (2,040,956 square feet) by the growth in jobs under the proposed General Plan (3,195 jobs).

MWH per SQFT per year	7.93E-03
MWH per Unit per year	10.09

Electricity	Existing	Proposed Project	Growth
	MWH		
Nonresidential	87,561	103,760	16,199
Residential	191,636	230,175	38,539
<b>Total</b>	<b>279,197</b>	<b>333,935</b>	<b>54,738</b>
Electricity	MTCO <sub>2</sub> e		
Nonresidential	8,180	0	-8,180
Residential	17,904	0	-17,904
<b>Total Electricity Emissions</b>	<b>26,084</b>	<b>0</b>	<b>-26,084</b>

Propane <sup>1</sup>	Existing	Proposed Project	Growth
	MMBTU		
Nonresidential	314,419	372,587	58,168
Residential	2,242,123	2,693,025	450,903
<b>Total</b>	<b>2,242,123</b>	<b>2,693,025</b>	<b>509,071</b>
Propane	MTCO <sub>2</sub> e		
Nonresidential	1,939	2,298	359
Residential	13,827	16,608	2,781
<b>Total Propane Emissions</b>	<b>15,766</b>	<b>18,906</b>	<b>3,139</b>

Note: <sup>1</sup>See criteria air pollutant emissions from energy calculations for propane use methodology.

## Energy Data Request- PG&E

Pacific Gas & Electric (PG&E). February 23, 2025. Electricity Use in Unincorporated Lake County (2019-2023).

Category	2019	2020	2021	2022	2023	Average
Nonresidential	92,638,474	87,128,783	87,927,910	81,070,470	89,039,319	87,560,991
Residential	185,013,026	202,351,974	208,415,084	187,832,645	174,566,803	191,635,906
Total kwh/year	277,651,500	289,480,757	296,342,994	268,903,115	263,606,122	279,196,898

## Water and Wastewater

See sources for water and wastewater demand in Appendix X

### Water Consumption

	Existing	Proposed Project
AFY TOTAL	47,164	48,282
MGY TOTAL	15,368	15,733
Agricultural Water Consumption (82%) MGY TOTAL	12,576	12,874
Urban Water Consumption (18%) MGY TOTAL	2,792	2,859

Note: Urban and agricultural water use under the proposed project is assumed to be the same as the proportion under existing conditions.

### Wastewater Generation

	Existing (MGD)	Proposed Project (MGD)	Increase (MGD)	Type of Wastewater Treatment
Northwest WWTP	1.60	1.80	0.20	Aerated lagoons
Southeast WWTP	1.90	2.22	0.32	Aerated lagoons
Middletown WWTP	0.13	0.26	0.13	Facultative Ponds
Kelseyville WWTP	0.18	0.43	0.25	Aerated lagoons
Clearlake Oaks WWTP	0.24	0.29	0.05	Facultative Ponds
Hidden Valley Lake WWTP	0.35	0.68	0.33	Aeration and Tertiary Treatment
City of Lakeport	0.51	0.51	0.00	Aerobic
Brassfield Estate Winery	0.01	0.01	0.00	Aerobic ponds
Guenoc Winery	0.01	0.01	0.00	Anaerobic Bioreactor
Mountain of Attention	0.01	0.01	0.00	Aerobic ponds
Konocti Harbor Resort	0.12	0.12	0.00	Aeration ponds
Hoberg's Club Resort	0.01	0.01	0.00	Aeration ponds
Wildhurst Vineyards	0.01	0.01	0.00	Aeration ponds
<b>Total Million Gallons Per Day (MGD)</b>	<b>5.06</b>	<b>6.34</b>	<b>1.28</b>	
<b>MGY TOTAL</b>	<b>1,847</b>	<b>2,314</b>	<b>467.20</b>	

	Existing (MGY)	Proposed Project (MGY)
Aerobic	1,710	2,112
Anaerobic (Facultative Lagoons)	137	203

### Direct Emissions from Wastewater Treatment

Wastewater Treatment Type	BIOGENIC CO <sub>2</sub>			
	MT/Gallon	CH <sub>4</sub> MT/Gallon	N <sub>2</sub> O MT/Gallon	Non-Biogenic CO <sub>2</sub> e MT/Gallon
Aerobic	3.54E-07	1.22E-09	7.73E-10	2.39E-07
Anaerobic (Facultative Lagoons)	3.54E-07	3.64E-07	7.73E-10	1.04E-05
Septic	0.00E+00	2.27E-07	7.73E-10	6.56E-06

Source: California Air Pollution Control Officer's Association (CAPCOA). 2022, April. California Emissions Estimator Model (CalEEMod) User's Guide Version 2022.1. <https://www.caleemod.com/user-guide>. Table G-35, Annual Wastewater Treatment Direct Emission Factors (short ton per gallon)

### Septic Emissions

Systems in Lake County	Total Persons Served by Septic Systems in Lake County		
	CO <sub>2</sub> g/capita/day	CH <sub>4</sub> g/capita/day	
16,000	38,400	335	10.7

Anaerobic	Existing	Proposed Project
<b>Non-Biogenic MT CO<sub>2</sub>e TOTAL=</b>	<b>1,831</b>	<b>2,609</b>

## Water and Wastewater

### Energy for Water Conveyance, Treatment, Distribution, and Wastewater Treatment

Location	Supply	Water Treatment	Water Distribution	Total Water	Wastewater Treatment
	(Water Conveyance)				
kWhr/million gallons					
South Coast	3,044	725	1,537	5,306	1,501
San Francisco Bay	1,182	754	2,998	4,934	1,542
Central Coast	1,577	754	1,537	3,868	1,542
Tulare Lake	1,506	748	166	2,420	1,519
North Coast	620	754	1,537	2,911	1,542
San Joaquin River	827	748	166	1,741	1,519
Colorado River	2,304	748	166	3,218	1,519
Sacramento River	698	748	166	1,612	1,519
South Lahontan	1,953	748	1,537	4,238	1,519
North Lahontan	541	748	166	1,455	1,519

Source: California Air Pollution Control Officer's Association (CAPCOA). 2022, April. California Emissions Estimator Model (CalEEMod) User's Guide Version 2022.1. <https://www.caleemod.com/user-guide>. Table G-32, Water Energy Intensity Factors by Hydrologic Region and Process (kWh per million gallon).

### PG&E Carbon Intensity Factors

	Intensity factor			CO <sub>2</sub> e	CO <sub>2</sub> e
	CO <sub>2</sub> lbs/MWH <sup>1</sup>	CH <sub>4</sub> lbs/MWH <sup>2</sup>	N <sub>2</sub> O lbs/MWH <sup>2</sup>	lbs/MWh	MT/MWh
<b>2024</b>	203.983	0.033	0.004	<b>205.967</b>	<b>0.093</b>
<b>2050<sup>1</sup></b>	0.000	0.000	0.000	<b>0.000</b>	<b>0.000</b>

Source: California Air Pollution Control Officer's Association (CAPCOA). 2022, April. California Emissions Estimator Model (CalEEMod) User's Guide Version 2022.1. <https://www.caleemod.com/user-guide>. Table G-3, Electricity Utility Greenhouse Gas Emissions Factors

Notes

<sup>1</sup> In 2018, SB 100 (de León, 2018) was signed into law, which again increases the RPS to 60% by 2030 and encourages the state's electricity to come from carbon-free resources by 2045. Therefore, the carbon intensity of electricity use in 2050 is assumed to be 0 lbs per mega-watt hour.

### GHG Emissions from Energy Associated with Water/Wastewater

Energy Associated with Water Use	Existing Mwh/Year	Proposed Project Mwh/Year
Agricultural Water Consumption	7,410	7,586
Urban Water Consumption	4,501	4,608
Wastewater Generation	2,848	3,569
<b>Total Water/Wastewater</b>	<b>14,760</b>	<b>15,763</b>

Note: Agricultural Energy (kWh) = [volume of water (AF) x lift (feet) x 1.024]/pump efficiency. Average lift = 150 feet. Pump efficiency = 0.80.

GHG Emissions from Energy Associated with Water Use/Wastewater Generation	Existing MTCO <sub>2</sub> e/Year	Proposed Project MTCO <sub>2</sub> e/Year
Water Use	1,113	0
Wastewater Generation	266	0
<b>Total Water/Wastewater</b>	<b>1,379</b>	<b>0</b>

### Total GHGs

GHG Emissions from Water/Wastewater Use	Existing MTCO <sub>2</sub> e/Year	Proposed Project MTCO <sub>2</sub> e/Year
Water Use	1,113	0
Wastewater Generation	2,097	2,609
<b>Total Water/Wastewater</b>	<b>3,210</b>	<b>2,609</b>

## Solid Waste Disposal

Source: CalRecycle Recycling and Disposal Reporting System Report (Overall Jurisdiction Tons For Disposal and Disposal Related Uses)

### Waste Generated Within Unincorporated Lake County

Year	Landfill (tons)
2020	35,110
2021	34,552
2022	34,068
2023	42,893
2024	43,112
<b>Total</b>	<b>189,734</b>
<b>Annual Average</b>	<b>94,867</b>

### Service Population in Lake County

Existing Conditions 2024	Proposed GP 2050	% Increase
62,870	75,235	20%

#### Notes:

Source: CalRecycle. 2025, February 20 (accessed). RDRS Report 1: Overall Jurisdiction Tons for Disposal and Disposal Related Uses. <https://www2.calrecycle.ca.gov/RecyclingDisposalReporting/Reports/OverallJurisdictionTonsForDisposal>

### CARB's Landfill Emission Tool (version 1.09.24.2021) CH<sub>4</sub> Model Results

Based on the Eastlake Sanitary Landfill (Lake County) K-Value

	EXISTING				Proposed Project	
	CH <sub>4</sub> Tons	CH <sub>4</sub> w/LFG Capture	CO <sub>2</sub> MT	CARB MTCO <sub>2</sub> e w/LFG Capture	2024 Disposal (AR5 GWPs)*	MTCO <sub>2</sub> e w/LFG Capture
				2024 TOTAL	2024 TOTAL	2050 TOTAL
Year 1	488	122	78	111	226	270
Year 2	3,363	841	537	763	1,554	1,860
<b>Year 3 (PEAK)</b>	<b>3,714</b>	<b>928</b>	<b>593</b>	<b>842</b>	<b>1,716</b>	<b>2,054</b>
Year 4	3,575	894	571	811	1,652	1,977
Year 5	3,442	860	550	781	1,591	1,903
Year 6	3,314	828	529	752	1,531	1,832
Year 7	3,190	798	509	723	1,474	1,764
Year 8	3,071	768	490	697	1,419	1,698
Year 9	2,957	739	472	671	1,366	1,635
Year 10	2,846	712	455	646	1,315	1,574
Year 11	2,740	685	438	621	1,266	1,515
Year 12	2,638	660	421	598	1,219	1,459
Year 13	2,540	635	406	576	1,174	1,404
Year 14	2,445	611	390	555	1,130	1,352
Year 15	2,354	588	376	534	1,088	1,302
Year 16	2,266	567	362	514	1,047	1,253
Year 17	2,182	545	348	495	1,008	1,206
Year 18	2,100	525	335	476	971	1,161
Year 19	2,022	505	323	459	934	1,118
Year 20	1,947	487	311	441	899	1,076
Year 21	1,874	468	299	425	866	1,036
Year 22	1,804	451	288	409	834	998
Year 23	1,737	434	277	394	803	960
Year 24	1,672	418	267	379	773	925
Year 25	1,610	402	257	365	744	890
Year 26	1,550	387	247	351	716	857
Year 27	1,492	373	238	338	689	825
Year 28	1,436	359	229	326	664	794
Year 29	1,383	346	221	314	639	765
Year 30	1,331	333	213	302	615	736
Year 31	1,282	320	205	291	592	709
Year 32	1,234	308	197	280	570	682
Year 33	1,188	297	190	269	549	657
Year 34	1,143	286	183	259	528	632
Year 35	1,101	275	176	250	509	609

Year 36	1,060	265	169	240	490	586
Year 37	1,020	255	163	231	471	564
Year 38	982	246	157	223	454	543
Year 39	946	236	151	214	437	523
Year 40	910	228	145	206	421	503
Year 41	876	219	140	199	405	485
Year 42	844	211	135	191	390	467
Year 43	812	203	130	184	375	449
Year 44	782	195	125	177	361	432
Year 45	753	188	120	171	348	416
Year 46	725	181	116	164	335	401
Year 47	698	174	111	158	322	386
Year 48	672	168	107	152	310	371
Year 49	647	162	103	147	299	358
Year 50	623	156	99	141	288	344
Year 51	599	150	96	136	277	331
Year 52	577	144	92	131	267	319
Year 53	555	139	89	126	257	307
Year 54	535	134	85	121	247	296
Year 55	515	129	82	117	238	285
Year 56	496	124	79	112	229	274
Year 57	477	119	76	108	220	264
Year 58	459	115	73	104	212	254
Year 59	442	111	71	100	204	245
Year 60	426	106	68	97	197	235
<b>Total</b>	<b>92,459</b>	<b>23,115</b>	<b>20,969</b>	<b>42,725</b>	<b>51,128</b>	

Waste, Landfill Emissions Tool Version 1.09.24.2021, and data from CalRecycle. Biogenic CO<sub>2</sub> emissions are not included.

Notes			SAR GWP CH <sub>4</sub> *	21		
	LFG capture Efficiency	0.75	AR5 CH <sub>4</sub> GWP	28	Tons to metric Tons	0.9071847

Waste generation based on five year average waste commitment for unincorporated Lake County obtained from CalRecycle.

Significant CH<sub>4</sub> production typically begins one or two years after waste disposal in a landfill and continues for 10 to 60 years or longer. Consequently, the highest CH<sub>4</sub> emissions from waste disposal in a given year are reported. Decomposition based on an average annual rainfall of approximately 20 to 40 inches per year average (anaerobic decomposition factor (k) of 0.038) for lake County.

The Landfill Gas Estimator only includes the landfill gas (LFG) capture in the landfill gas heat output and therefore the reduction and emissions from landfill gas capture are calculated separately. Assumes 75 percent of fugitive GHG emissions are captured within the landfill's Landfill Gas Capture System with a landfill gas capture efficiency of 75 percent. The Landfill gas capture efficiency is based on the California Air Resources Board's (CARB) Local Government Operations Protocol (LGOP), Version 1.3.

Biogenic CO<sub>2</sub> emissions are not included.

## Refrigerants

Refrigerants	MTCO <sub>2</sub> e	
<b>2021 Statewide Refrigerant Use (AR4)</b>	MTCO <sub>2</sub> e	19,023,805
<b>US Census 2021 California Population</b>	People	38,965,193
	MT/person	0.49

	Existing	Proposed Project
<b>Population</b>	45,600	54,770
<b>MTCO<sub>2</sub>e</b>	22,263	26,740

Source: CARB. Greenhouse Gas Emissions Inventory Query Tool for years 2000 to 2021 (15th Edition) - Query Results. Main Activity: Use of substitutes for ozone depleting substances Activity Subset: Refrigeration and Air Conditioning. AR 4.

<https://ww2.arb.ca.gov/applications/greenhouse-gas-emission-inventory-0>

U.S. Census Bureau. 2023. Table DP05 2023: ACS 1-Year Demographics and Housing Estimates.

<https://data.census.gov/table?q=DP05:+ACS+Demographic+and+Housing+Estimates&g=040XX00US06>

## Operation-Related Annual Vehicle Fuel/Energy Usage Summary

### Existing Conditions (Year 2024)

Year	Gas			Diesel			CNG			Electricity		
	VMT	Gallons	Miles/Gal	VMT	Gallons	Miles/Gal	VMT	Gallons	Miles/Gal	VMT	kWh	Miles/kWh
Existing Conditions	359,976,039	16,158,573	22.28	29,696,766	2,667,279	11.13	0	0	NA	10,724,249	3,949,837	2.72
<b>Total</b>	<b>359,976,039</b>	<b>16,158,573</b>		<b>29,696,766</b>	<b>2,667,279</b>		<b>0</b>	<b>0</b>		<b>10,724,249</b>	<b>3,949,837</b>	

### GP Update (Year 2050)

Year	Gas			Diesel			CNG			Electricity		
	VMT	Gallons	Miles/Gal	VMT	Gallons	Miles/Gal	VMT	Gallons	Miles/Gal	VMT	kWh	Miles/kWh
GP Update	439,642,020	14,107,744	31.16	13,838,355	1,455,208	9.51	0	0	NA	58,195,589	27,825,125	2.09
<b>Total</b>	<b>439,642,020</b>	<b>14,107,744</b>		<b>13,838,355</b>	<b>1,455,208</b>		<b>0</b>	<b>0</b>		<b>58,195,589</b>	<b>27,825,125</b>	

### Total Net Change

Year	Gas			Diesel			CNG			Electricity		
	VMT	Gallons	Miles/Gal	VMT	Gallons	Miles/Gal	VMT	Gallons	Miles/Gal	VMT	kWh	Miles/kWh
Change from Existing Conditions	79,665,981	-2,050,829	8.89	-15,858,412	-1,212,071	-1.62	0	0	NA	47,471,340	23,875,287	-0.62

### Notes

\* VMT based on VMT data provided by Fehr & Peers 2025.

\*\* Fuel consumption rates based on data obtained from EMFAC2021 Web Database, Version 1.0.2. <https://arb.ca.gov/emfac/emissions-inventory/f7df17ce2153322cf12c7ff31f52997af7bf7717>

\*\*\*VMT per year based on a conversion of VMT x 347 days per year to account for less travel on weekend, consistent with CARB statewide GHG emissions inventory methodology. California Air Resources Board. 2008, October. Climate Change Proposed Scoping Plan: A Framework for Change.

**Existing Conditions (Year 2024): Annual VMT**

Vehicle type	Fleet percent	Annual VMT
LDA	44.14%	176,732,791
LDT1	5.37%	21,483,320
LDT2	22.68%	90,800,650
MDV	17.23%	69,005,945
LHD1	5.99%	23,966,671
LHD2	1.38%	5,520,483
MHD	0.93%	3,712,258
HHD	1.33%	5,343,492
OBUS	0.03%	101,885
UBUS	0.00%	0
MCY	0.50%	1,986,783
SBUS	0.15%	615,226
MH	0.18%	723,367
All Other Buses	0.02%	67,917
Motor Coach	0.02%	97,582
PTO	0.06%	238,681
	100.00%	400,397,054

**Existing Conditions**

Vehicle type	Gas percent	Diesel percent	CNG percent	Electricity percent
LDA	94.11%	0.53%	0.00%	5.35%
LDT1	99.81%	0.06%	0.00%	0.14%
LDT2	98.97%	0.35%	0.00%	0.68%
MDV	96.95%	2.23%	0.00%	0.81%
LHD1	46.08%	53.81%	0.00%	0.10%
LHD2	16.30%	83.59%	0.00%	0.11%
MHD	17.00%	82.71%	0.00%	0.29%
HHD	0.02%	99.78%	0.00%	0.21%
OBUS	99.59%	0.00%	0.00%	0.41%
UBUS	0.00%	0.00%	0.00%	0.00%
MCY	100.00%	0.00%	0.00%	0.00%
SBUS	41.83%	57.99%	0.00%	0.18%
MH	71.56%	28.44%	0.00%	0.00%
All Other Buses	0.00%	100.00%	0.00%	0.00%
Motor Coach	0.00%	100.00%	0.00%	0.00%
PTO	0.00%	99.91%	0.00%	0.09%

<< Equal to T6 (<https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf>)  
 << Equal to T7 (<https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf>)  
 << OBUS (<https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf>)

Vehicle type	Gasoline			Diesel			CNG			Electricity		
	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	m/kWh	kWh
LDA	166,326,627	28.15	5,909,077	942,456	40.23	23,424	0	0	0	9,463,708	2.72	3,475,198
LDT1	21,441,440	22.85	938,511	12,076	24.47	494	0	0	0	29,805	2.79	10,691
LDT2	89,864,531	22.53	3,989,479	319,770	31.46	10,164	0	0	0	616,349	2.91	211,649
MDV	66,904,260	18.51	3,614,012	1,542,180	23.97	64,332	0	0	0	559,505	2.83	197,830
LHD1	11,044,001	8.85	1,247,394	12,897,622	16.03	804,563	0	0	0	25,048	1.54	16,298
LHD2	899,860	8.05	111,760	4,614,481	12.98	355,402	0	0	0	6,143	1.56	3,932
MHD	631,254	4.75	132,978	3,070,250	8.38	366,191	0	0.00	0	10,755	0.90	11,908
HHD	829	4.10	202	5,331,500	5.91	902,342	0	0.00	0	11,163	0.54	20,673
OBUS	101,466	4.68	21,691	0	6.74	0	0	0	0	419	0.00	0
UBUS	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0

MCY	1,986,783	38.25	51,948	0	0	0	0	0	0	0	0.00	0
SBUS	257,338	9.42	27,329	356,759	8.44	42,270	0	0.00	0	1,129	0.95	1,191
MH	517,650	4.53	114,192	205,718	9.34	22,015	0	0	0	0	0.00	0
All Other Buses	0	0	0	67,917	8.52	7,975	0	0.00	0	0	0.00	0
Motor Coach	0	0	0	97,582	5.50	17,744	0	0	0	0	0.00	0
PTO	0	0	0	238,456	4.73	50,363	0	0	0	225	0.48	467
	<b>359,976,039</b>		<b>16,158,573</b>	<b>29,696,766</b>		<b>2,667,279</b>	<b>0</b>		<b>0</b>	<b>10,724,249</b>		<b>3,949,837</b>

**GP Update (Year 2050): Annual VMT**

Vehicle type	Fleet percent	Annual VMT
LDA	50.42%	257,982,473
LDT1	2.61%	13,336,692
LDT2	26.07%	133,372,465
MDV	14.76%	75,501,218
LHD1	2.62%	13,381,428
LHD2	0.53%	2,716,152
MHD	0.98%	5,022,079
HHD	1.48%	7,566,081
OBUS	0.02%	92,553
UBUS	0.00%	0
MCY	0.29%	1,462,376
SBUS	0.09%	482,144
MH	0.04%	211,110
All Other Buses	0.02%	86,425
Motor Coach	0.03%	132,550
PTO	0.06%	330,215
	100%	511,675,964

**GP Update Conditions**

Vehicle type	Gas percent	Diesel percent	CNG percent	Electricity percent
LDA	85.94%	0.06%	0.00%	14.01%
LDT1	95.64%	0.00%	0.00%	4.36%
LDT2	95.49%	0.36%	0.00%	4.15%
MDV	93.18%	1.05%	0.00%	5.78%
LHD1	38.14%	16.95%	0.00%	44.91%
LHD2	12.78%	44.84%	0.00%	42.38%
MHD	7.74%	39.78%	0.00%	52.48%
HHD	0.02%	81.08%	0.00%	18.90%
OBUS	12.55%	70.29%	0.00%	17.15%
UBUS	0.00%	0.00%	0.00%	0.00%
MCY	100.00%	0.00%	0.00%	0.00%
SBUS	6.31%	40.13%	0.00%	53.56%
MH	61.79%	38.21%	0.00%	0.00%
All Other Buses	0.00%	100.00%	0.00%	0.00%
Motor Coach	0.00%	100.00%	0.00%	0.00%
PTO	0.00%	72.70%	0.00%	27.30%

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<< OBUS (<https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf>)

Vehicle type	Gasoline			Diesel			CNG			Electricity		
	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	m/kWh	kWh
LDA	221,701,252	36.36	6,097,465	147,262	54.27	2,714	0	0	0	36,133,959	2.69	13,439,769
LDT1	12,754,910	31.62	403,324	148	30.37	5	0	0	0	581,634	2.78	209,248
LDT2	127,358,990	30.43	4,185,033	484,609	40.73	11,899	0	0	0	5,528,865	2.82	1,963,555
MDV	70,350,669	25.19	2,793,020	789,871	30.99	25,490	0	0	0	4,360,678	2.76	1,579,516
LHD1	5,104,171	11.16	457,198	2,267,980	16.63	136,419	0	0	0	6,009,277	1.53	3,929,750
LHD2	347,006	10.13	34,245	1,217,962	13.90	87,633	0	0	0	1,151,184	1.56	736,798
MHD	388,892	5.63	69,026	1,997,753	9.47	210,889	0	0.00	0	2,635,434	0.92	2,858,562
HHD	1,276	5.30	241	6,134,514	7.10	864,426	0	0.00	0	1,430,291	0.54	2,648,909
OBUS	11,620	5.59	2,079	65,056	7.67	8,478	0	0	0	15,878	0.00	0
UBUS	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0
MCY	1,462,376	42.03	34,795	0	0.00	0	0	0	0	0	0.00	0
SBUS	30,409	11.47	2,652	193,484	9.19	21,052	0	0.00	0	258,251	0.95	272,293
MH	130,448	4.55	28,666	80,662	9.24	8,729	0	0	0	0	0.00	0

All Other Buses	0	0	0	86,425	9.64	8,967	0	0.00	0	0	0.00	0
Motor Coach	0	0	0	132,550	6.39	20,737	0	0	0	0	0.00	0
PTO	0	0	0	240,077	5.03	47,769	0	0	0	90,139	0.48	186,724
	<b>439,642,020</b>		<b>14,107,744</b>	<b>13,838,355</b>		<b>1,455,208</b>	<b>0</b>		<b>0</b>	<b>58,195,589</b>		<b>27,825,125</b>

EMFAC Fuel Usage: Year 2024

Vehicle type	GAS			DSL			NG			ELEC		
	VMT/day	Gallons/day	Miles/gallon	VMT/day	Gallons/day	Miles/gallon	VMT/day	Gallons/day	Miles/gallon	VMT/day	kWh/day	Miles/kWh
All other buses	0	0	0.00	396	46	8.52	0	0	0.00	0	0	0.00
LDA	969,303	34,436	28.15	5,492	137	40.23	0	0	0.00	55,152	20,252	2.72
LDT1	124,954	5,469	22.85	70	3	24.47	0	0	0.00	174	62	2.79
LDT2	523,704	23,250	22.53	1,864	59	31.46	0	0	0.00	3,592	1,233	2.91
LHD1	64,361	7,269	8.85	75,164	4,689	16.03	0	0	0.00	146	95	1.54
LHD2	5,244	651	8.05	26,892	2,071	12.98	0	0	0.00	36	23	1.56
MCY	11,578	303	38.25	0	0	0.00	0	0	0.00	0	0	0.00
MDV	389,899	21,061	18.51	8,987	375	23.97	0	0	0.00	3,261	1,153	2.83
MH	3,017	665	4.53	1,199	128	9.34	0	0	0.00	0	0	0.00
Motor coach	0	0	0.00	569	103	5.50	0	0	0.00	0	0	0.00
OBUS	591	126	4.68	0	0	0.00	0	0	0.00	2	3	0.91
PTO	0	0	0.00	1,390	293	4.73	0	0	0.00	1	3	0.48
SBUS	1,500	159	9.42	2,079	246	8.44	0	0	0.00	7	7	0.95
T6	3,679	775	4.75	17,893	2,134	8.38	0	0	0.00	63	69	0.90
T7	5	1	4.10	31,070	5,259	5.91	0	0	0.00	65	120	0.54
UBUS	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
<b>Total</b>	<b>2,097,836</b>	<b>94,167</b>	<b>22.28</b>	<b>173,064</b>	<b>15,544</b>	<b>11.13</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>62,498</b>	<b>23,021</b>	<b>2.71</b>

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: County

Region: Lake

Calendar Year: 2024

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Fuel Consumption	Energy Consumption
Lake	2024	All Other Buses	Aggregate	Aggregate	Diesel	8.302148827	395.8027497	395.8027497	0	73.8891246	0.046473506	0
Lake	2024	LDA	Aggregate	Aggregate	Gasoline	24703.77137	957017.0223	957017.0223	0	110674.347	34.00519036	0
Lake	2024	LDA	Aggregate	Aggregate	Diesel	167.9731507	5492.357877	5492.357877	0	690.927672	0.136509842	0
Lake	2024	LDA	Aggregate	Aggregate	Electricity	846.9985376	42770.46019	0	42770.46019	4235.93077	0	16512.92767
Lake	2024	LDA	Aggregate	Aggregate	Plug-in Hybrid	517.0186553	24667.62093	12286.33523	12381.28569	2137.87214	0.431195379	3739.5173
Lake	2024	LDT1	Aggregate	Aggregate	Gasoline	4321.747624	124908.2952	124908.2952	0	17344.4711	5.467739974	0
Lake	2024	LDT1	Aggregate	Aggregate	Diesel	6.597161354	70.37399985	70.37399985	0	18.7368985	0.002876109	0
Lake	2024	LDT1	Aggregate	Aggregate	Electricity	2.703096731	117.1457461	0	117.1457461	12.7004085	0	45.22792655
Lake	2024	LDT1	Aggregate	Aggregate	Plug-in Hybrid	1.934173675	102.7446042	46.19780168	56.54680247	7.99780814	0.001627252	17.07881971
Lake	2024	LDT2	Aggregate	Aggregate	Gasoline	13553.84108	522065.8756	522065.8756	0	60752.9705	23.19166721	0
Lake	2024	LDT2	Aggregate	Aggregate	Diesel	44.32720943	1863.528051	1863.528051	0	205.283485	0.059231485	0
Lake	2024	LDT2	Aggregate	Aggregate	Electricity	45.7792413	1767.559828	0	1767.559828	233.929784	0	682.4239783
Lake	2024	LDT2	Aggregate	Aggregate	Plug-in Hybrid	67.528729	3462.899623	1638.553603	1824.34602	279.231294	0.057862304	551.0068722
Lake	2024	LHD1	Aggregate	Aggregate	Gasoline	2030.560133	64361.23433	64361.23433	0	30252.3204	7.269450945	0
Lake	2024	LHD1	Aggregate	Aggregate	Diesel	2260.606653	75163.60361	75163.60361	0	28435.5879	4.688762525	0
Lake	2024	LHD1	Aggregate	Aggregate	Electricity	1.828935753	145.9719805	0	145.9719805	25.5490743	0	94.97871069
Lake	2024	LHD2	Aggregate	Aggregate	Gasoline	155.2142827	5244.12293	5244.12293	0	2312.46154	0.651305334	0
Lake	2024	LHD2	Aggregate	Aggregate	Diesel	749.5684746	26891.85469	26891.85469	0	9428.62845	2.07118167	0
Lake	2024	LHD2	Aggregate	Aggregate	Electricity	0.473385766	35.79749422	0	35.79749422	6.26619363	0	22.91227719
Lake	2024	MCY	Aggregate	Aggregate	Gasoline	2384.379755	11578.39358	11578.39358	0	4768.75951	0.302738455	0
Lake	2024	MDV	Aggregate	Aggregate	Gasoline	11071.6802	388679.2831	388679.2831	0	48359.0985	21.01796868	0
Lake	2024	MDV	Aggregate	Aggregate	Diesel	228.1800637	8987.379637	8987.379637	0	1032.86073	0.374909578	0
Lake	2024	MDV	Aggregate	Aggregate	Electricity	52.24293653	1999.826247	0	1999.826247	266.123023	0	772.097986
Lake	2024	MDV	Aggregate	Aggregate	Plug-in Hybrid	48.74016948	2480.151826	1219.347323	1260.804503	201.540601	0.043446381	380.8005378
Lake	2024	MH	Aggregate	Aggregate	Gasoline	396.8819128	3016.713561	3016.713561	0	39.7040666	0.665475731	0
Lake	2024	MH	Aggregate	Aggregate	Diesel	144.0375885	1198.862158	1198.862158	0	14.4037589	0.128295341	0
Lake	2024	Motor Coach	Aggregate	Aggregate	Diesel	4.075654769	568.6820122	568.6820122	0	93.6585466	0.103409693	0
Lake	2024	OBUS	Aggregate	Aggregate	Gasoline	17.00469623	591.3120537	591.3120537	0	340.229962	0.126409618	0
Lake	2024	OBUS	Aggregate	Aggregate	Electricity	0.028081036	2.444157612	0	2.444157612	0.56184536	0	2.697769516
Lake	2024	PTO	Aggregate	Aggregate	Diesel	0	1389.651031	1389.651031	0	0	0.293498153	0
Lake	2024	PTO	Aggregate	Aggregate	Electricity	0	1.314091274	0	1.314091274	0	0	2.722164737
Lake	2024	SBUS	Aggregate	Aggregate	Gasoline	29.84385755	1499.694041	1499.694041	0	119.37543	0.159262903	0
Lake	2024	SBUS	Aggregate	Aggregate	Diesel	91.23389152	2079.086786	2079.086786	0	1321.06675	0.246335654	0
Lake	2024	SBUS	Aggregate	Aggregate	Electricity	0.244114083	6.580302414	0	6.580302414	3.37338458	0	6.938216824
Lake	2024	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	14.53036429	484.6971254	484.6971254	0	207.348298	0.060048904	0
Lake	2024	T6 Instate Delivery Class 4	Aggregate	Aggregate	Electricity	0.050269618	1.784630344	0	1.784630344	0.71734746	0	1.90648326
Lake	2024	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	2.264711901	75.2516994	75.2516994	0	32.3174388	0.009233994	0
Lake	2024	T6 Instate Delivery Class 5	Aggregate	Aggregate	Electricity	0.006407061	0.235365908	0	0.235365908	0.09142877	0	0.251436475
Lake	2024	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	15.14241287	520.2443449	520.2443449	0	216.082232	0.064177918	0
Lake	2024	T6 Instate Delivery Class 6	Aggregate	Aggregate	Electricity	0.020088581	0.785367957	0	0.785367957	0.28666405	0	0.838992158
Lake	2024	T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	4.631293383	255.8500856	255.8500856	0	66.0885566	0.031030651	0
Lake	2024	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	67.69082984	2711.591707	2711.591707	0	782.505993	0.315014665	0
Lake	2024	T6 Instate Other Class 4	Aggregate	Aggregate	Electricity	0.226336247	9.766461696	0	9.766461696	2.61644701	0	10.35324133
Lake	2024	T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	118.316181	5134.845125	5134.845125	0	1367.73505	0.60507049	0
Lake	2024	T6 Instate Other Class 5	Aggregate	Aggregate	Electricity	0.173139883	7.948404797	0	7.948404797	2.00149705	0	8.425953594
Lake	2024	T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	52.62385618	2092.418683	2092.418683	0	608.331777	0.242049373	0
Lake	2024	T6 Instate Other Class 6	Aggregate	Aggregate	Electricity	0.195146923	8.295257553	0	8.295257553	2.25589844	0	8.793645641
Lake	2024	T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	63.45473777	2813.580888	2813.580888	0	733.536769	0.321895902	0
Lake	2024	T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	1.385605313	61.39410315	61.39410315	0	16.0175974	0.006969287	0
Lake	2024	T6 Instate Tractor Class 6	Aggregate	Aggregate	Electricity	0.008427496	0.503469886	0	0.503469886	0.09742185	0	0.533718904
Lake	2024	T6 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	6.862093305	381.5870237	381.5870237	0	79.3257986	0.042925732	0
Lake	2024	T6 Public Class 4	Aggregate	Aggregate	Diesel	21.84351575	743.4237557	743.4237557	0	112.057236	0.098212059	0
Lake	2024	T6 Public Class 4	Aggregate	Aggregate	Electricity	0.092750683	3.985513519	0	3.985513519	0.47581101	0	4.706495135
Lake	2024	T6 Public Class 5	Aggregate	Aggregate	Diesel	13.64731253	494.7701748	494.7701748	0	70.0107133	0.06499457	0
Lake	2024	T6 Public Class 5	Aggregate	Aggregate	Electricity	0.04917946	2.109867141	0	2.109867141	0.25229063	0	2.491543282
Lake	2024	T6 Public Class 6	Aggregate	Aggregate	Diesel	16.24625775	555.4794335	555.4794335	0	83.3433023	0.072982536	0
Lake	2024	T6 Public Class 6	Aggregate	Aggregate	Electricity	0.075903079	3.014356578	0	3.014356578	0.38938279	0	3.559655363
Lake	2024	T6 Public Class 7	Aggregate	Aggregate	Diesel	30.7937822	1398.462991	1398.462991	0	157.972103	0.180398537	0
Lake	2024	T6 Public Class 7	Aggregate	Aggregate	Electricity	0.143965783	9.383884858	0	9.383884858	0.73854447	0	11.08143486

Lake	2024 T6 Utility Class 5	Aggregate	Aggregate	Diesel	2.869642087	116.3980512	116.3980512	0	36.7314187	0.013154661	0
Lake	2024 T6 Utility Class 5	Aggregate	Aggregate	Electricity	0.021017789	0.914382623	0	0.914382623	0.2690277	0	1.024166498
Lake	2024 T6 Utility Class 6	Aggregate	Aggregate	Diesel	0.54424624	21.96746637	21.96746637	0	6.96635187	0.002474811	0
Lake	2024 T6 Utility Class 6	Aggregate	Aggregate	Electricity	0.003912787	0.17022649	0	0.17022649	0.05008367	0	0.19066446
Lake	2024 T6 Utility Class 7	Aggregate	Aggregate	Diesel	0.62165237	30.56334182	30.56334182	0	7.95715034	0.003422502	0
Lake	2024 T6 Utility Class 7	Aggregate	Aggregate	Electricity	0.004693553	0.282040696	0	0.282040696	0.06007748	0	0.315903457
Lake	2024 T6TS	Aggregate	Aggregate	Gasoline	92.25451263	3678.763388	3678.763388	0	1845.82829	0.774958673	0
Lake	2024 T6TS	Aggregate	Aggregate	Electricity	0.151509293	13.49542487	0	13.49542487	3.03139793	0	14.92428995
Lake	2024 T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	19.52930169	3885.857868	3885.857868	0	448.783353	0.637196931	0
Lake	2024 T7 CAIRP Class 8	Aggregate	Aggregate	Electricity	0.115552511	20.31017691	0	20.31017691	2.6553967	0	37.08488164
Lake	2024 T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	17.4608616	4618.294897	4618.294897	0	401.2506	0.744164445	0
Lake	2024 T7 NOOS Class 8	Aggregate	Aggregate	Diesel	7.359489452	1677.744501	1677.744501	0	169.121068	0.274846158	0
Lake	2024 T7 Public Class 8	Aggregate	Aggregate	Diesel	68.38605441	2885.49703	2885.49703	0	350.820459	0.557417748	0
Lake	2024 T7 Public Class 8	Aggregate	Aggregate	Electricity	0.207066408	13.3471203	0	13.3471203	1.06225067	0	26.19482557
Lake	2024 T7 Single Concrete/Transit	Aggregate	Aggregate	Diesel	10.93712921	737.5226606	737.5226606	0	103.027757	0.125290586	0
Lake	2024 T7 Single Concrete/Transit	Aggregate	Aggregate	Electricity	0.103261503	6.61802632	0	6.61802632	0.97272336	0	12.06568231
Lake	2024 T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	51.55353581	3048.97308	3048.97308	0	485.634307	0.532065162	0
Lake	2024 T7 Single Other Class 8	Aggregate	Aggregate	Diesel	57.09578525	3212.064621	3212.064621	0	537.842297	0.547849402	0
Lake	2024 T7 SWCV Class 8	Aggregate	Aggregate	Diesel	1.956210681	130.1469057	130.1469057	0	8.99856913	0.051865999	0
Lake	2024 T7 Tractor Class 8	Aggregate	Aggregate	Diesel	143.8847522	10781.94783	10781.94783	0	2090.64545	1.771959667	0
Lake	2024 T7 Tractor Class 8	Aggregate	Aggregate	Electricity	0.34194808	24.49344809	0	24.49344809	4.9685056	0	44.59546096
Lake	2024 T7 Utility Class 8	Aggregate	Aggregate	Diesel	2.056777368	92.38550868	92.38550868	0	26.3267503	0.015932795	0
Lake	2024 T7 Utility Class 8	Aggregate	Aggregate	Electricity	0.003875854	0.245839924	0	0.245839924	0.04961093	0	0.462866987
Lake	2024 T7IS	Aggregate	Aggregate	Gasoline	0.090714817	4.833784574	4.833784574	0	1.81502205	0.001179375	0
Lake	2024 T7IS	Aggregate	Aggregate	Electricity	0.000142309	0.041156311	0	0.041156311	0.00284732	0	0.07266574

EMFAC Fuel Usage: Year 2045

Vehicle type	GAS			DSL			NG			ELEC		
	VMT/day	Gallons/day	Miles/gallon	VMT/day	Gallons/day	Miles/gallon	VMT/day	Gallons/day	Miles/gallon	VMT/day	kWh/day	Miles/kWh
All other buses	0	0	0.00	427	44	9.64	0	0	0.00	0	0	0.00
LDA	1,096,443	30,156	36.36	728	13	54.27	0	0	0.00	178,704	66,468	2.69
LDT1	63,081	1,995	31.62	1	0	30.37	0	0	0.00	2,877	1,035	2.78
LDT2	629,865	20,697	30.43	2,397	59	40.73	0	0	0.00	27,343	9,711	2.82
LHD1	25,243	2,261	11.16	11,216	675	16.63	0	0	0.00	29,719	19,435	1.53
LHD2	1,716	169	10.13	6,024	433	13.90	0	0	0.00	5,693	3,644	1.56
MCY	7,232	172	42.03	0	0	0.00	0	0	0.00	0	0	0.00
MDV	347,925	13,813	25.19	3,906	126	30.99	0	0	0.00	21,566	7,812	2.76
MH	645	142	4.55	399	43	9.24	0	0	0.00	0	0	0.00
Motor coach	0	0	0.00	656	103	6.39	0	0	0.00	0	0	0.00
OBUS	193	35	5.59	0	0	0.00	0	0	0.00	264	292	0.91
PTO	0	0	0.00	1,187	236	5.03	0	0	0.00	446	923	0.48
SBUS	150	13	11.47	957	104	9.19	0	0	0.00	1,277	1,347	0.95
T6	1,923	341	5.63	9,880	1,043	9.47	0	0	0.00	13,034	14,137	0.92
T7	6	1	5.30	30,339	4,275	7.10	0	0	0.00	7,074	13,100	0.54
UBUS	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
<b>Total</b>	<b>2,174,424</b>	<b>69,795</b>	<b>31.15</b>	<b>68,117</b>	<b>7,155</b>	<b>9.52</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>287,997</b>	<b>137,903</b>	<b>2.09</b>

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: County

Region: Lake

Calendar Year: 2050

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Fuel Consumption	Energy Consumption
Lake	2050	All Other Buses	Aggregate	Aggregate	Diesel	9.800020664	427.4239245	427.4239245	0	87.2201839	0.044347564	0
Lake	2050	LDA	Aggregate	Aggregate	Gasoline	25568.96283	1075669.779	1075669.779	0	115752.919	29.42237642	0
Lake	2050	LDA	Aggregate	Aggregate	Diesel	20.54929425	728.2988922	728.2988922	0	84.3875032	0.013420089	0
Lake	2050	LDA	Aggregate	Aggregate	Electricity	3484.569915	148641.4866	0	148641.4866	15976.9908	0	57387.88189
Lake	2050	LDA	Aggregate	Aggregate	Plug-in Hybrid	1196.794017	50835.08569	20772.95177	30062.13392	4948.74326	0.733165419	9079.660439
Lake	2050	LDT1	Aggregate	Aggregate	Gasoline	1617.14997	62462.31636	62462.31636	0	7064.67085	1.972723997	0
Lake	2050	LDT1	Aggregate	Aggregate	Diesel	0.017592636	0.732807263	0.732807263	0	0.07957498	0.04256E-05	0
Lake	2050	LDT1	Aggregate	Aggregate	Electricity	46.14680224	1975.662304	0	1975.662304	211.956612	0	762.7687095
Lake	2050	LDT1	Aggregate	Aggregate	Plug-in Hybrid	35.33149311	1519.055424	618.1972374	900.8581864	146.095724	0.021947552	272.0860222
Lake	2050	LDT2	Aggregate	Aggregate	Gasoline	15694.46929	622928.7301	622928.7301	0	69419.1748	20.45010222	0
Lake	2050	LDT2	Aggregate	Aggregate	Diesel	60.65866772	2396.675487	2396.675487	0	267.793275	0.058849762	0
Lake	2050	LDT2	Aggregate	Aggregate	Electricity	593.4693683	17279.43571	0	17279.43571	2709.47137	0	6671.288333
Lake	2050	LDT2	Aggregate	Aggregate	Plug-in Hybrid	410.6410739	17000.22684	6936.180801	10064.04603	1698.00084	0.247339883	3039.641859
Lake	2050	LHD1	Aggregate	Aggregate	Gasoline	724.1763157	25243.12005	25243.12005	0	10789.1481	2.261112617	0
Lake	2050	LHD1	Aggregate	Aggregate	Diesel	322.1456869	11216.49185	11216.49185	0	4052.18748	0.67467293	0
Lake	2050	LHD1	Aggregate	Aggregate	Electricity	643.8631222	29719.40086	0	29719.40086	9155.00469	0	19434.92035
Lake	2050	LHD2	Aggregate	Aggregate	Gasoline	43.65172918	1716.149981	1716.149981	0	650.345724	0.169362971	0
Lake	2050	LHD2	Aggregate	Aggregate	Diesel	193.9058357	6023.536432	6023.536432	0	2439.09148	0.433398323	0
Lake	2050	LHD2	Aggregate	Aggregate	Electricity	122.7431122	5693.280138	0	5693.280138	1623.89635	0	3643.90017
Lake	2050	MCY	Aggregate	Aggregate	Gasoline	1494.01186	7232.307869	7232.307869	0	2988.02372	0.172082608	0
Lake	2050	MDV	Aggregate	Aggregate	Gasoline	9062.929973	343709.4696	343709.4696	0	39586.8991	13.66091743	0
Lake	2050	MDV	Aggregate	Aggregate	Diesel	118.2290882	3906.37782	3906.37782	0	491.790052	0.126060987	0
Lake	2050	MDV	Aggregate	Aggregate	Electricity	530.528675	15442.97489	0	15442.97489	2421.39407	0	5962.262885
Lake	2050	MDV	Aggregate	Aggregate	Plug-in Hybrid	252.6239458	10338.98861	4215.854125	6123.134481	1044.60002	0.152205658	1849.369112
Lake	2050	MH	Aggregate	Aggregate	Gasoline	53.83193834	645.140895	645.140895	0	5.38534711	0.141771694	0
Lake	2050	MH	Aggregate	Aggregate	Diesel	40.24658911	398.9220896	398.9220896	0	4.02465891	0.043169367	0
Lake	2050	Motor Coach	Aggregate	Aggregate	Diesel	5.203970153	655.5386977	655.5386977	0	119.587234	0.102556588	0
Lake	2050	OBUS	Aggregate	Aggregate	Gasoline	4.918928105	193.4254138	193.4254138	0	98.4179135	0.034605358	0
Lake	2050	OBUS	Aggregate	Aggregate	Electricity	4.013262384	264.3058398	0	264.3058398	80.2973538	0	291.7308745
Lake	2050	PTO	Aggregate	Aggregate	Diesel	0	1187.31944	1187.31944	0	0	0.236247319	0
Lake	2050	PTO	Aggregate	Aggregate	Electricity	0	445.7882203	0	445.7882203	0	0	923.4586649
Lake	2050	SBUS	Aggregate	Aggregate	Gasoline	2.796101963	150.3898645	150.3898645	0	11.1844079	0.013113842	0
Lake	2050	SBUS	Aggregate	Aggregate	Diesel	45.72861422	956.8920627	956.8920627	0	662.150334	0.10411511	0
Lake	2050	SBUS	Aggregate	Aggregate	Electricity	49.45754746	1277.201059	0	1277.201059	687.040395	0	1346.648084
Lake	2050	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	7.997260177	254.7666314	254.7666314	0	114.120903	0.027404731	0
Lake	2050	T6 Instate Delivery Class 4	Aggregate	Aggregate	Electricity	9.48049207	315.5800445	0	315.5800445	135.286622	0	337.1275593
Lake	2050	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	1.231948938	39.30203043	39.30203043	0	17.5799113	0.004227097	0
Lake	2050	T6 Instate Delivery Class 5	Aggregate	Aggregate	Electricity	1.477769476	49.19830132	0	49.19830132	21.0877704	0	52.55751602
Lake	2050	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	8.263436669	271.3568664	271.3568664	0	117.919241	0.02917643	0
Lake	2050	T6 Instate Delivery Class 6	Aggregate	Aggregate	Electricity	9.878819772	339.4935124	0	339.4935124	140.970758	0	362.6738167
Lake	2050	T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	3.619435912	179.9469473	179.9469473	0	51.6493505	0.019722174	0
Lake	2050	T6 Instate Delivery Class 7	Aggregate	Aggregate	Electricity	2.345945042	120.0093082	0	120.0093082	33.4766357	0	128.2034333
Lake	2050	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	36.13185957	1386.709537	1386.709537	0	417.684297	0.143874699	0
Lake	2050	T6 Instate Other Class 4	Aggregate	Aggregate	Electricity	42.89349992	1803.785414	0	1803.785414	495.848859	0	1912.158801
Lake	2050	T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	68.04331048	2615.320239	2615.320239	0	786.580669	0.271562308	0
Lake	2050	T6 Instate Other Class 5	Aggregate	Aggregate	Electricity	81.04593893	3414.042959	0	3414.042959	936.891054	0	3619.16237
Lake	2050	T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	28.75841563	1071.615461	1071.615461	0	332.447285	0.111327876	0
Lake	2050	T6 Instate Other Class 6	Aggregate	Aggregate	Electricity	34.06598578	1391.241982	0	1391.241982	393.802796	0	1474.829312
Lake	2050	T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	48.06141845	1838.14266	1838.14266	0	555.589997	0.193109577	0
Lake	2050	T6 Instate Other Class 7	Aggregate	Aggregate	Electricity	29.88288177	1460.473348	0	1460.473348	345.446113	0	1548.220174
Lake	2050	T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	0.68931693	31.28141101	31.28141101	0	7.96850371	0.003220179	0
Lake	2050	T6 Instate Tractor Class 6	Aggregate	Aggregate	Electricity	0.812685049	41.28672667	0	41.28672667	9.39463917	0	43.76727806
Lake	2050	T6 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	6.545417473	362.2475946	362.2475946	0	75.665026	0.034449133	0
Lake	2050	T6 Instate Tractor Class 7	Aggregate	Aggregate	Electricity	1.342188164	85.12147527	0	85.12147527	15.5156952	0	90.23566599
Lake	2050	T6 Public Class 4	Aggregate	Aggregate	Diesel	11.05578002	384.05958	384.05958	0	56.7161515	0.043627768	0
Lake	2050	T6 Public Class 4	Aggregate	Aggregate	Electricity	11.05860288	423.0611469	0	423.0611469	56.7306328	0	499.5931442
Lake	2050	T6 Public Class 5	Aggregate	Aggregate	Diesel	7.408392441	256.5262122	256.5262122	0	38.0050532	0.029344118	0

Lake	2050 T6 Public Class 5	Aggregate	Aggregate	Electricity	7.327784641	280.0501954	0	280.0501954	37.5915352	0	330.7114318
Lake	2050 T6 Public Class 6	Aggregate	Aggregate	Diesel	8.340838248	288.8781248	288.8781248	0	42.7885002	0.032827983	0
Lake	2050 T6 Public Class 6	Aggregate	Aggregate	Electricity	8.236645173	314.2344299	0	314.2344299	42.2539897	0	371.0796134
Lake	2050 T6 Public Class 7	Aggregate	Aggregate	Diesel	19.61829621	828.019646	828.019646	0	100.64186	0.091678902	0
Lake	2050 T6 Public Class 7	Aggregate	Aggregate	Electricity	14.79593514	692.3018707	0	692.3018707	75.9031473	0	817.5396649
Lake	2050 T6 Utility Class 5	Aggregate	Aggregate	Diesel	1.23543525	49.61357244	49.61357244	0	15.8135712	0.005124815	0
Lake	2050 T6 Utility Class 5	Aggregate	Aggregate	Electricity	1.887949501	77.0710979	0	77.0710979	24.1657536	0	86.32451502
Lake	2050 T6 Utility Class 6	Aggregate	Aggregate	Diesel	0.233133039	9.362551272	9.362551272	0	2.9841029	0.000967102	0
Lake	2050 T6 Utility Class 6	Aggregate	Aggregate	Electricity	0.356254882	14.54374945	0	14.54374945	4.56006249	0	16.28992128
Lake	2050 T6 Utility Class 7	Aggregate	Aggregate	Diesel	0.259320494	12.9100323	12.9100323	0	3.31930232	0.001326247	0
Lake	2050 T6 Utility Class 7	Aggregate	Aggregate	Electricity	0.396265477	20.39962626	0	20.39962626	5.07219811	0	22.8488745
Lake	2050 T6TS	Aggregate	Aggregate	Gasoline	49.06009468	1923.300084	1923.300084	0	981.594374	0.341376378	0
Lake	2050 T6TS	Aggregate	Aggregate	Electricity	37.16769467	2191.87228	0	2191.87228	743.651235	0	2423.942763
Lake	2050 T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	18.98906923	3748.377322	3748.377322	0	436.368811	0.508312562	0
Lake	2050 T7 CAIRP Class 8	Aggregate	Aggregate	Electricity	5.13215262	1050.459121	0	1050.459121	117.936867	0	1918.0607
Lake	2050 T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	20.7332362	5673.704153	5673.704153	0	476.449768	0.731961685	0
Lake	2050 T7 NOOS Class 8	Aggregate	Aggregate	Diesel	8.995111829	2061.155937	2061.155937	0	206.70767	0.269249722	0
Lake	2050 T7 Public Class 8	Aggregate	Aggregate	Diesel	41.48501463	1684.364719	1684.364719	0	212.818125	0.27284483	0
Lake	2050 T7 Public Class 8	Aggregate	Aggregate	Electricity	31.733594	1446.071701	0	1446.071701	162.793337	0	2838.035105
Lake	2050 T7 Single Concrete/Transit	Aggregate	Aggregate	Diesel	5.247120545	351.21452	351.21452	0	49.4278755	0.051786286	0
Lake	2050 T7 Single Concrete/Transit	Aggregate	Aggregate	Electricity	7.038075257	488.1591584	0	488.1591584	66.2986689	0	889.9894071
Lake	2050 T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	33.52209361	1682.252488	1682.252488	0	315.778122	0.256184531	0
Lake	2050 T7 Single Dump Class 8	Aggregate	Aggregate	Electricity	29.33933325	1756.919425	0	1756.919425	276.376519	0	3203.134982
Lake	2050 T7 Single Other Class 8	Aggregate	Aggregate	Diesel	20.34097625	3946.111018	3946.111018	0	191.611996	0.652292315	0
Lake	2050 T7 SWCV Class 8	Aggregate	Aggregate	Diesel	1.113945622	73.31817767	73.31817767	0	5.12414986	0.022368397	0
Lake	2050 T7 SWCV Class 8	Aggregate	Aggregate	Electricity	1.021390253	67.22632646	0	67.22632646	4.69839516	0	125.0779891
Lake	2050 T7 Tractor Class 8	Aggregate	Aggregate	Diesel	188.7435641	11066.03909	11066.03909	0	2742.44399	1.502039525	0
Lake	2050 T7 Tractor Class 8	Aggregate	Aggregate	Electricity	34.80596135	2209.97557	0	2209.97557	505.730618	0	4023.724178
Lake	2050 T7 Utility Class 8	Aggregate	Aggregate	Diesel	1.264334494	52.23305533	52.23305533	0	16.1834815	0.008051835	0
Lake	2050 T7 Utility Class 8	Aggregate	Aggregate	Electricity	1.037590555	47.79872712	0	47.79872712	13.2811591	0	89.99536136
Lake	2050 T7IS	Aggregate	Aggregate	Gasoline	0.063056328	6.310373804	6.310373804	0	1.26163102	0.001191032	0
Lake	2050 T7IS	Aggregate	Aggregate	Electricity	0.053569479	7.018844072	0	7.018844072	1.07181814	0	12.39249799