

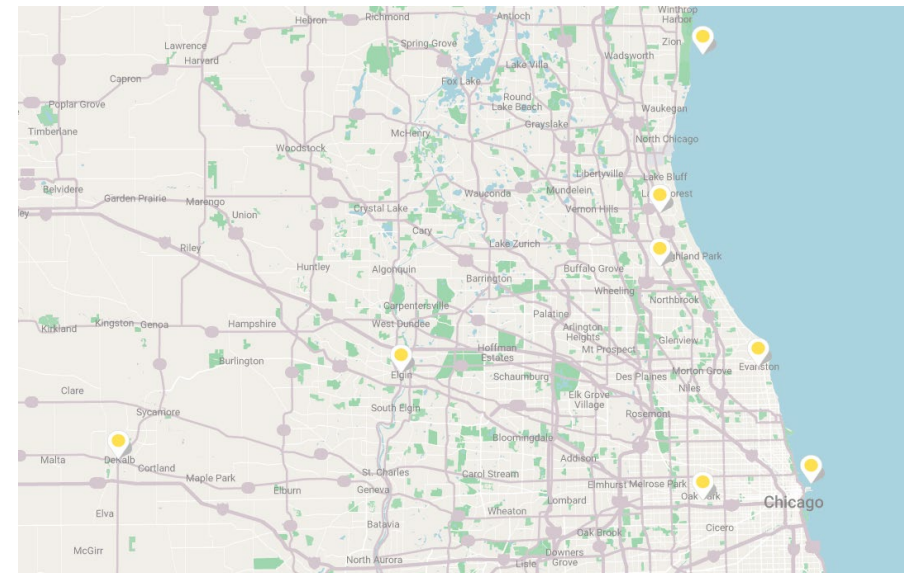
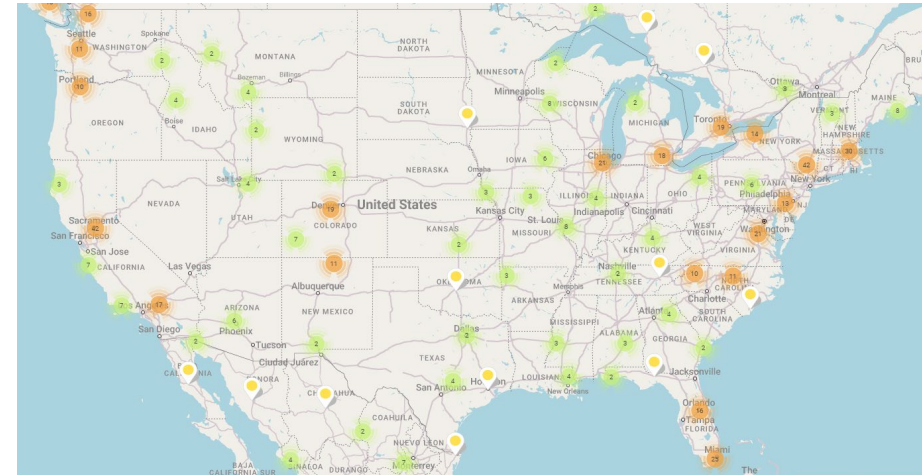


# **2024 Greenhouse Gas Inventory**

**Sustainability Programs Manager  
June 25<sup>th</sup>, 2025**

# What is a Greenhouse Gas Inventory?

- A greenhouse gas inventory quantifies the amount of heat-trapping gases (GHGs) released by human sources within a defined boundary over the course of a year.
- Staff has utilized ClearPath, the emissions management software suite from ICLEI-USA for 2017, 2022, 2023, and 2024.



# Policy Goals



- At its Sept. 8<sup>th</sup>, 2020, meeting, the Lake County Board approved a resolution committing Lake County government operations to the goal of attaining net zero greenhouse gas emissions from its 2014-2017 baseline.
- The resolution commits Lake County to the following:
  - By the year 2030, reducing greenhouse gas emissions from its operations by 50%, and achieving at least a 60% diversion rate of recyclables and organics from its own waste stream
  - By the year 2040, procuring 100% renewable energy, reducing greenhouse gas emissions by 90% or more, and achieving at least a 90% diversion rate of recyclables and organics
  - Ensuring that all new County facilities constructed after 2020 be evaluated for their potential for net zero certification
  - Publicly reporting progress toward these goals on an annual basis
  - Inviting and encouraging municipalities and townships throughout the county to join in the effort to reduce the environmental impact of the operations required to provide public service to the residents and businesses of Lake County

# Definitions

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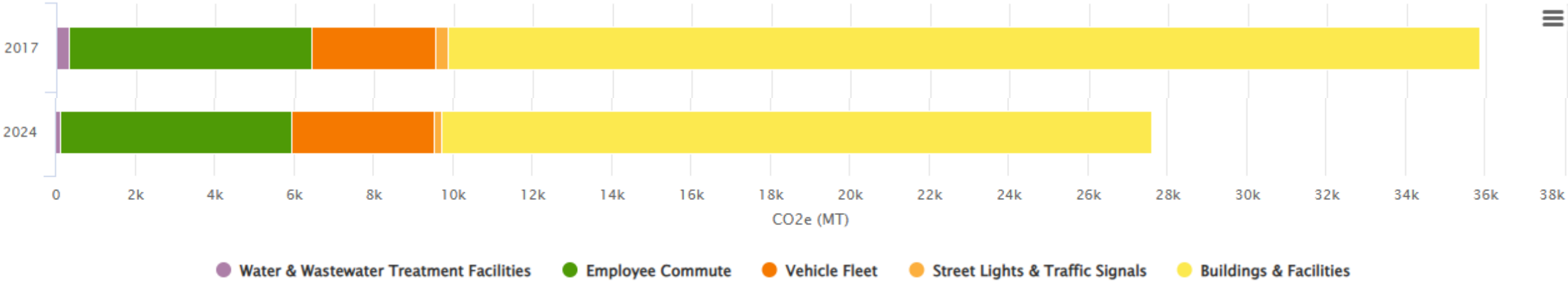
- **CO2e – The abbreviation for 'carbon dioxide equivalent' which expresses the impact of different greenhouse gases in terms of the amount of CO2 that would create the same amount of warming.**
- **Scope 1 - Covers emissions from sources that an organization owns or controls directly (ex. burning fuel in vehicle fleet).**
- **Scope 2 - Emissions from sources that an organization causes indirectly through energy use (ex. electricity production).**
- **Scope 3 – All indirect emissions that are not included in scope 2 that occur as a result of operations, including both upstream and downstream emissions (ex. employee commute).**

# Baseline Comparison – 22.9% Reduction



- In 2017, Lake County produced 35,823 MT of CO2e.
- In 2024, Lake County produced 27,623 MT of CO2e.

Year	Buildings & Facilities	Streetlights & Traffic Signals	Vehicle Fleet	Employee Commute	Water & Wastewater Treatment Facilities
2017	25,967	310	3,122	6,100	324
2024	17,884	199	3,597	5,829	114



# Comparison – 2023 to 2024



1. Buildings & Facilities ↓
  1. Purchased electricity emissions factor down
  2. Less natural gas usage (North Chicago and Group Home facilities closed; biosolids dryer disruptions)
  3. More electricity usage perhaps explained by additional hot days in 2024
2. Streetlights & Traffic Signals ↓
  1. Grid electricity emissions factor down
3. Vehicle Fleet ↑
  1. No change in EV%
  2. Higher than usual snowplow callout requests
  3. No change in driver efficiency score
4. Employee Commute ↓
  1. Shorter average commute
  2. Fewer people driving alone (94% -> 93%)
  3. More EV drivers (5% -> 6%)
  4. More accurate work from home average (2 days per week -> 2.36 days/week)
5. Wastewater Treatment Facilities →
  1. No change in populations served

# Where to next?

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- **Grant funded building energy assessments**
- **Fleet charging procedure update**
- **Waukegan solar generation**
- **Work from home policy update**
- **Wholistic approach – every department does their part**
- **Establishing the pillars of the energy program**
- **Developing a strategic energy plan**