# 2023 Greenhouse Gas Inventory

Sustainability Programs Manager
June 26th, 2024

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, and 2023.**
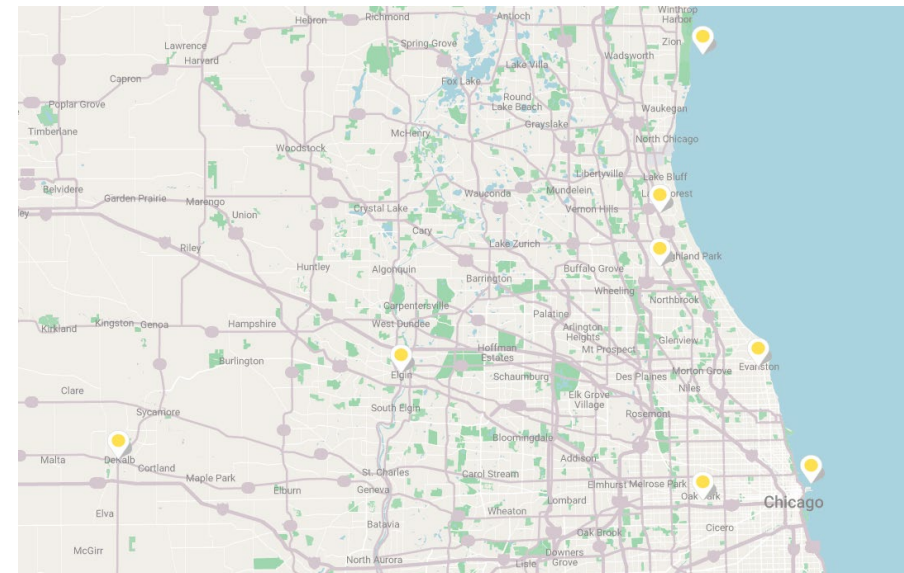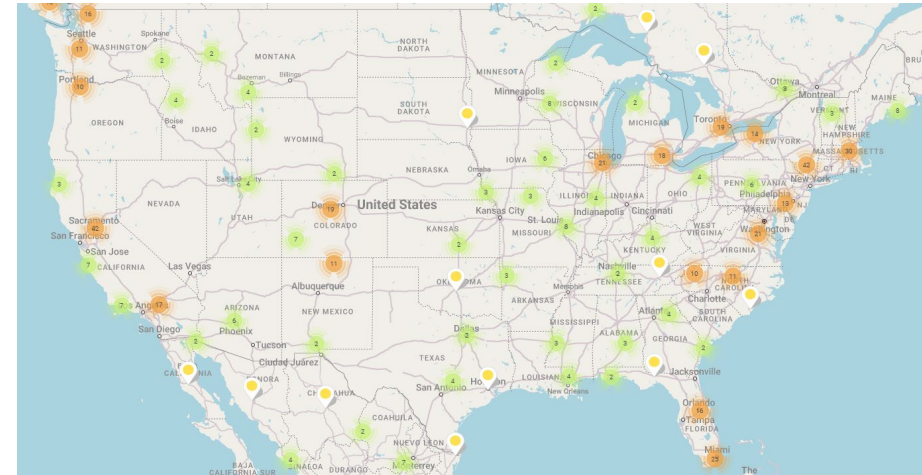
Policy Goals

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- At its Sept. 8th, 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).**

The Baseline

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- **In 2017, Lake County produced 35,962 MT of CO2e.**

Scope	Sector	CO2e
Scope 1	Buildings & Facilities	4,743
Scope 1	Vehicle Fleet	3,122
Scope 1	Water & Wastewater Treatment Facilities	403
Scope 2	Buildings & Facilities	21,223
Scope 2	Street Lights & Traffic Signals	310
Scope 3	Employee Commute	6,100

CO2e By Category

- Solid Waste Facilities
- Street Lights & Traffic Signals
- Water & Wastewater Treatment Facilities
- Vehicle Fleet
- Employee Commute
- Buildings & Facilities
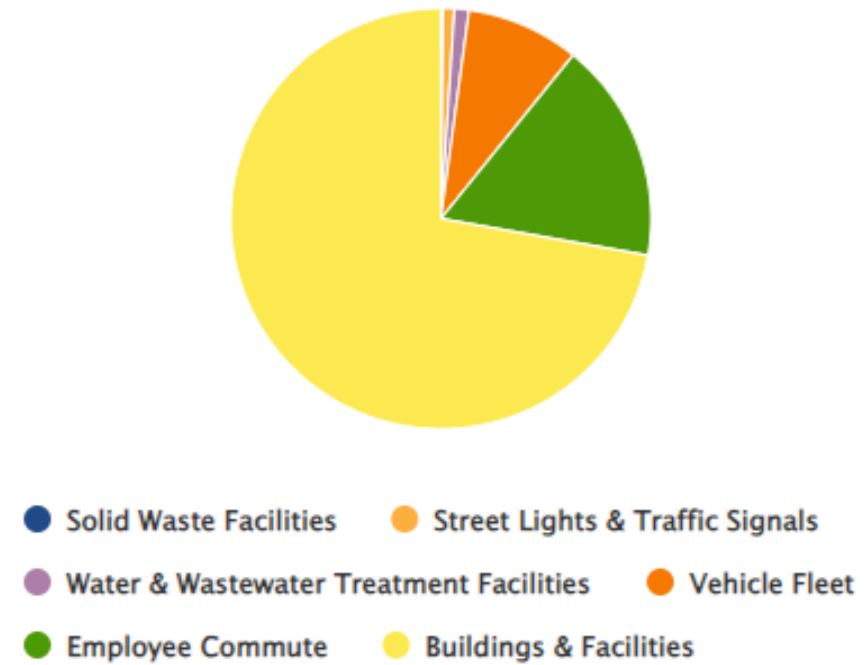
2023 Emissions

- **In 2023, Lake County produced 31,169 MT of CO2e.**

Scope	Sector	CO2e
Scope 1	Buildings & Facilities	6,674
Scope 1	Water & Wastewater Treatment Facilities	143
Scope 2	Buildings & Facilities	15,076
Scope 2	Street Lights & Traffic Signals	219
Scope 3	Vehicle Fleet	2,908
Scope 3	Employee Commute	6,148

CO2e By Category

- Water & Wastewater Treatment Facilities
- Street Lights & Traffic Signals
- Vehicle Fleet
- Employee Commute
- Buildings & Facilities
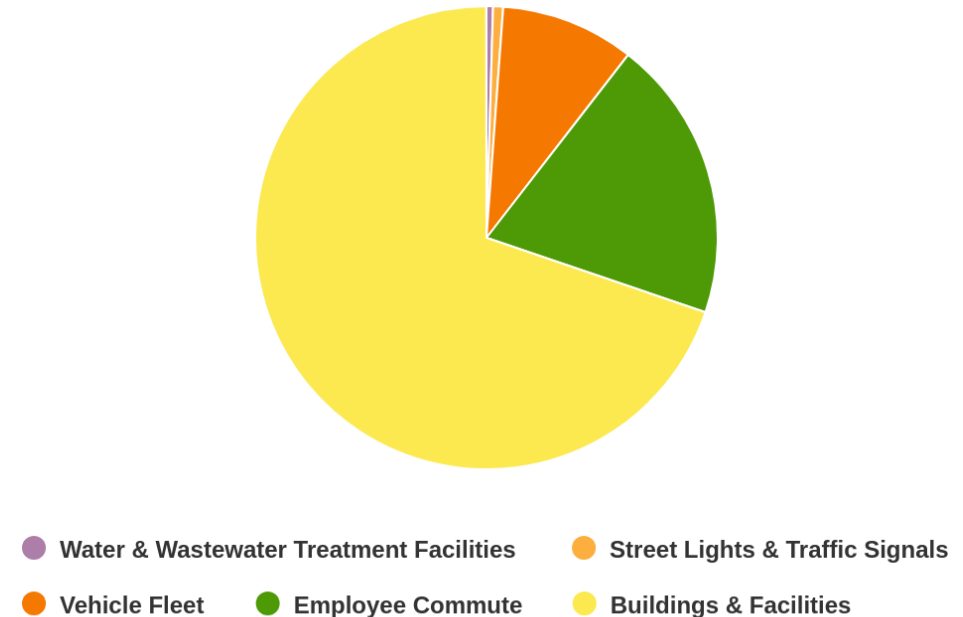
Comparison – 13.3% Reduction

Lake County

Year	Buildings & Facilities	Streetlights & Traffic Signals	Vehicle Fleet	Employee Commute	Water & Wastewater Treatment Facilities
2017	25,967	310	3,122	6,100	403
2023	21,751	219	2,908	6,148	143

Legend: ● Water & Wastewater Treatment Facilities ● Solid Waste Facilities ● Employee Commute ● Vehicle Fleet ● Street Lights & Traffic Signals ● Buildings & Facilities
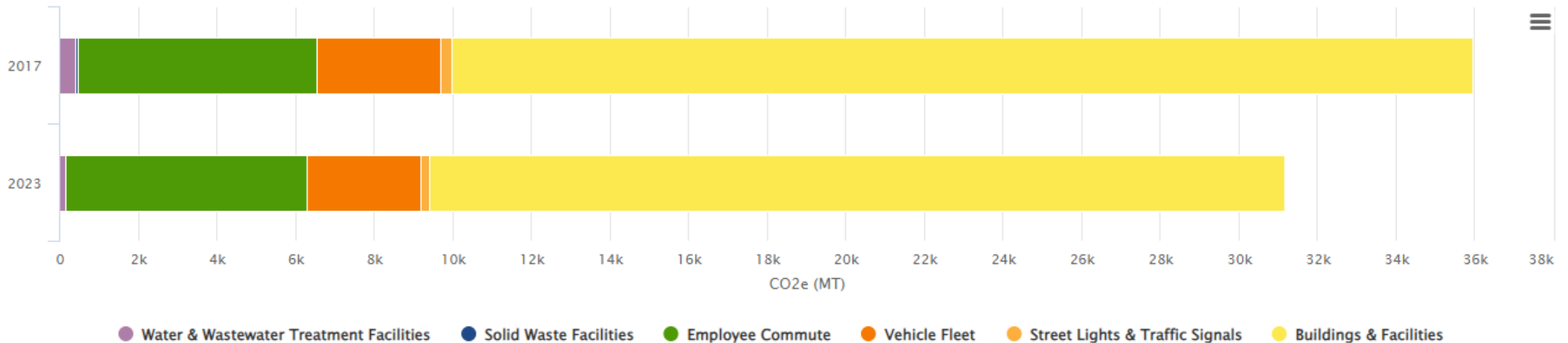
Key Takeaways

1. Streetlight upgrades

2. More efficient vehicle usage

3. Employee commute trends

4. Building efficiency upgrades

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Where to next? 36.7% by 2030

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- **Building electrification planning**

- **Green fleet planning**

- **Energy generation**

- **Energy efficiency**

- **Vehicle charging**

- **Work from home opportunities**

- **Wholistic approach – every department does their part**

- **Finalization of Roadmap to Decarbonization**

6-26-24