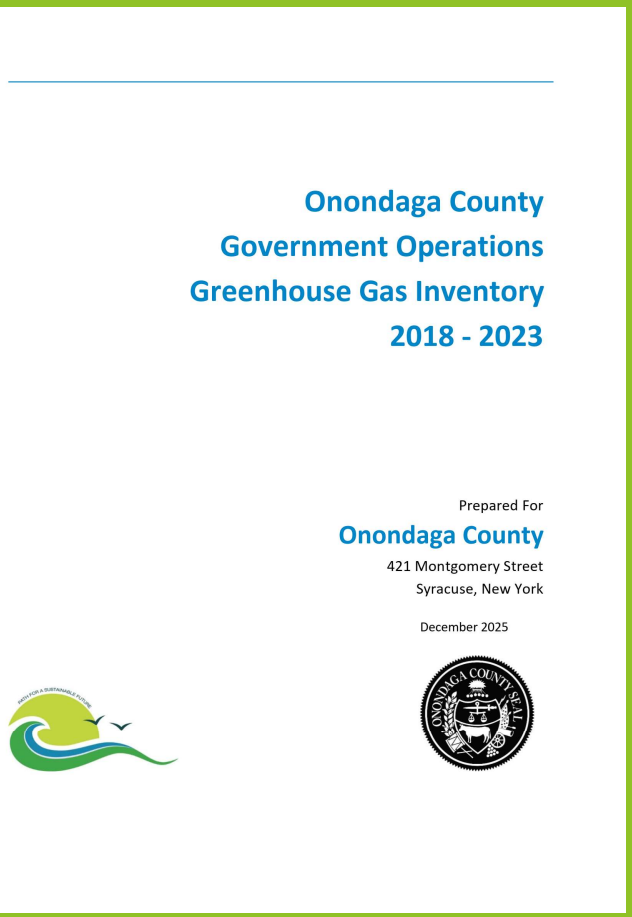
2025 Onondaga County Greenhouse Gas Inventory Report

Onondaga County Executive
J. Ryan McMahon II



Onondaga County
Government Operations
Greenhouse Gas Inventory
2018 - 2023

Prepared For
Onondaga County
421 Montgomery Street
Syracuse, New York

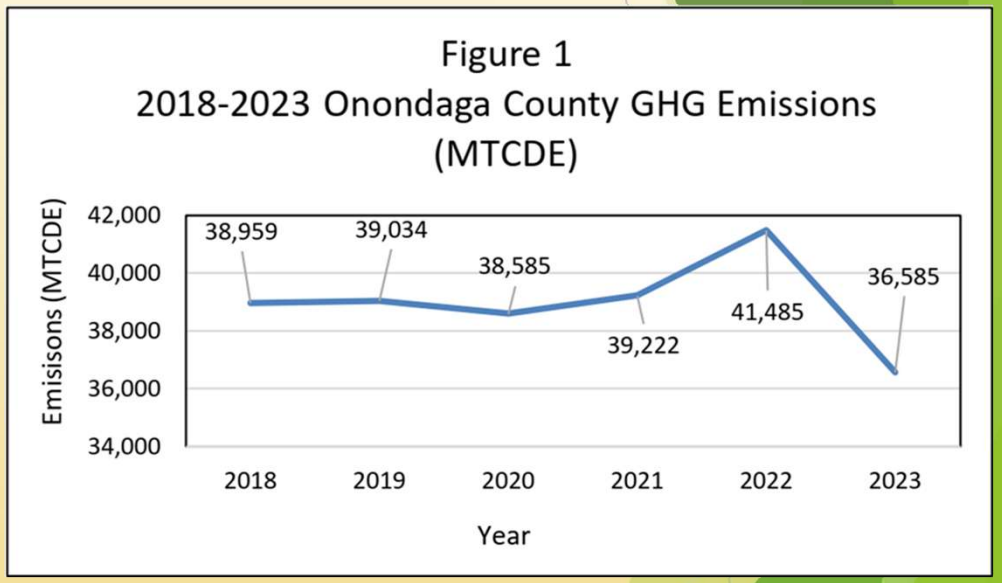
December 2025

Introduction

- The 2025 Onondaga County Greenhouse Gas Inventory (GHGI) is a comprehensive accounting of all the greenhouse gas emissions Onondaga County Government Operations were responsible for between the years of 2018-2023
- The data tabulated in this GHGI will inform the County's upcoming Climate Action Plan (CAP) which will summarize the data and recommend measures to lower emissions as a part of a County Government-wide plan
- This project was made possible in part by funding from the New York State Department of Environmental Conservation (NYSDEC) Office of Climate Change. The data reported is the responsibility of the Contractor and does not necessarily represent the opinions, interpretations, or policy of the State of New York.

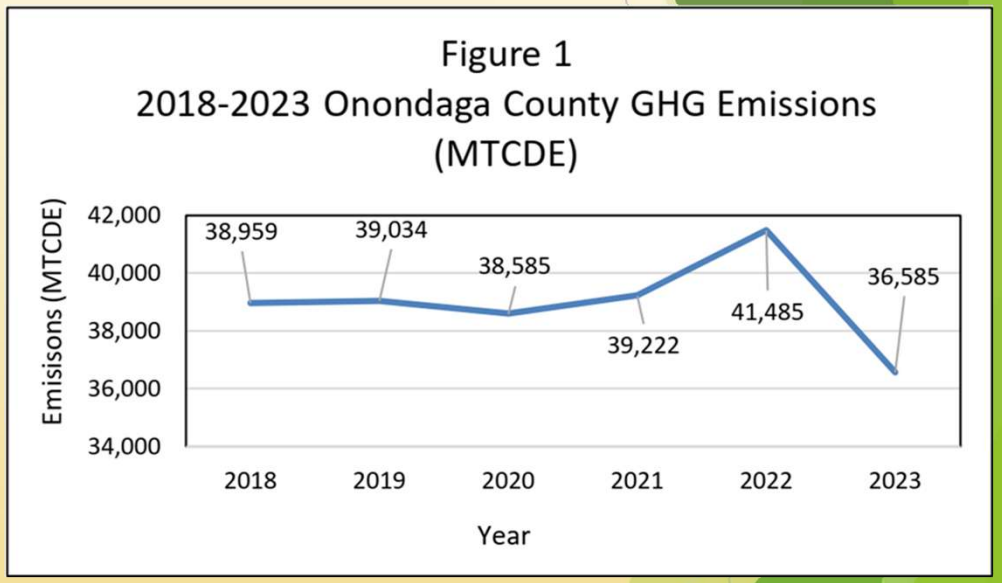
Comparison with 2017 GHGI

- In 2023, total County emissions totaled 36,585 Metric Tons of Carbon Dioxide equivalent (MTCDE), a decrease of 4,358 MTCDE (11%) from 2017 (40,943 MTCDE)
- Total energy use across County Operations decreased between 2017 and 2023 at the following rates:
  - 16% decrease in gasoline usage
  - 28% decrease in diesel fuel usage
  - 5% decrease in electricity usage
  - 6% increase in natural gas usage
- These shifts in energy usage contributed to corresponding reductions in greenhouse gas emissions



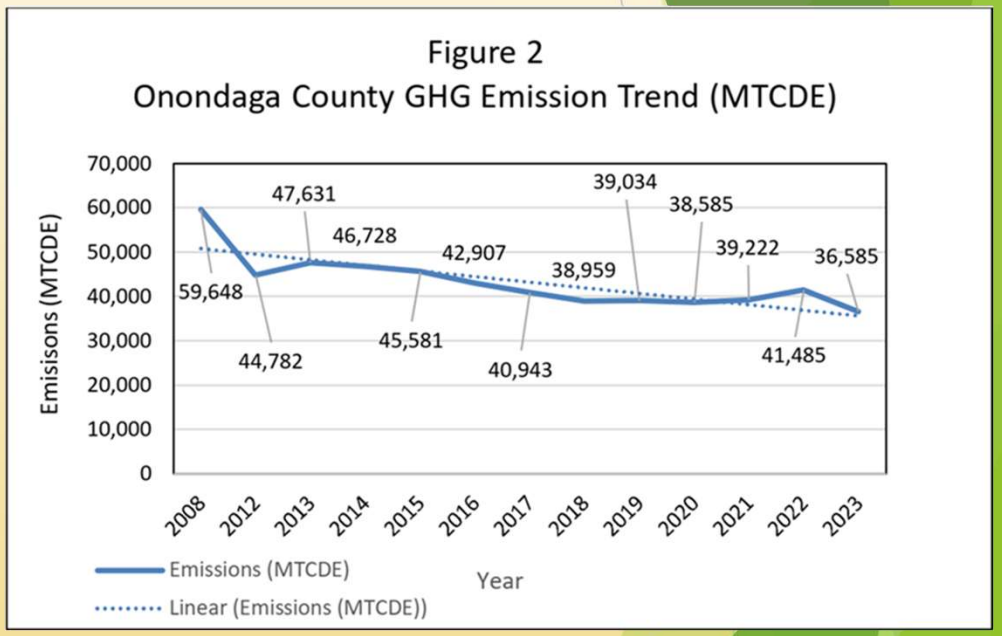
Analysis of Emissions Peak in 2022

- Over the six-year scope of the GHGI (2018-2023), emissions peaked in 2022 at 41,485 MTCDE
  - This corresponds with the peak year of natural gas usage
- The reason for this increase was primarily due to a project that year at the Department of Water Environment Protection (WEP)
  - WEP was upgrading its anaerobic digesters and had to rely on natural gas for its boilers
  - This project was also the primary reason for the overall 6% uptick in natural gas usage over 2017
- After the conclusion of the project, emissions fell to a six-year low of 36,585 MTCDE in 2023



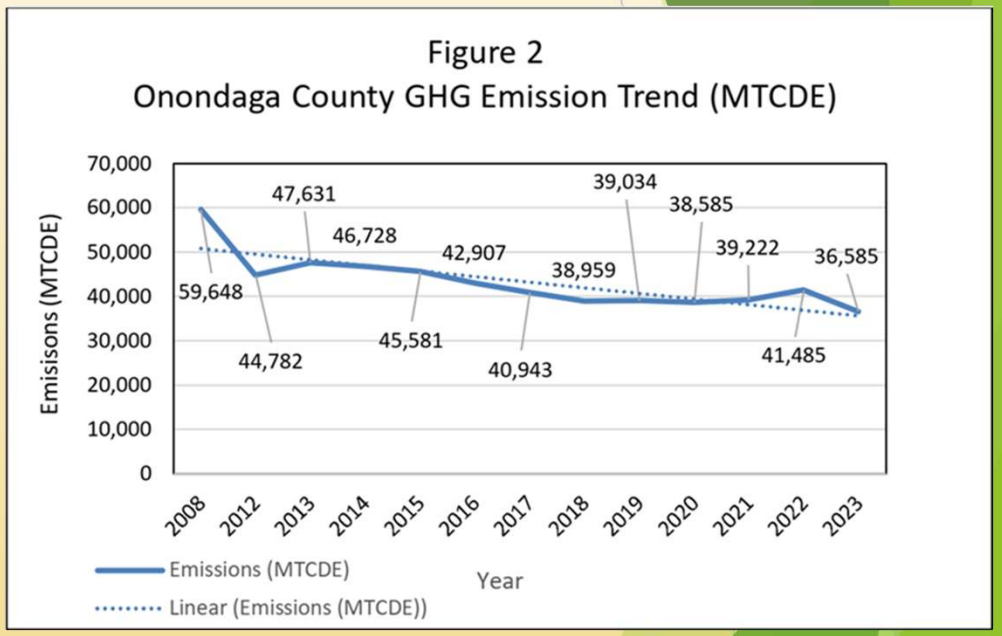
Key Factors Influencing Emissions Reductions

- Improved Building Efficiency
  - Energy upgrades in County-owned facilities led to reductions in electricity consumption.
- Fleet Management
  - Transition to more fuel-efficient vehicles contributed to lower transportation emissions.
- Decreased Operational Footprint
  - Emission totals have been updated from the 2008 baseline to remove facilities and services that are no longer directly operated by the County including:
    - ONCenter
    - NBT Bank Stadium
    - Lakeview Amphitheater



Methodology and Emissions Factors

- Updated Emissions Factors
  - Emissions factors are published by the US Environmental Protection Agency (EPA) and International Panel on Climate Change (IPCC)
    - They reflect the most up-to-date information on how emissions affect the warming of the planet
- Updated Emissions Methodology
  - The current GHGI utilizes the most recent standardized inventory methodology and previous GHGIs were aligned with the same
- Grid Decarbonization
  - Continued decreases in emissions intensity of electricity supplied to New York region (e.g., updates to EPA eGRID factors)



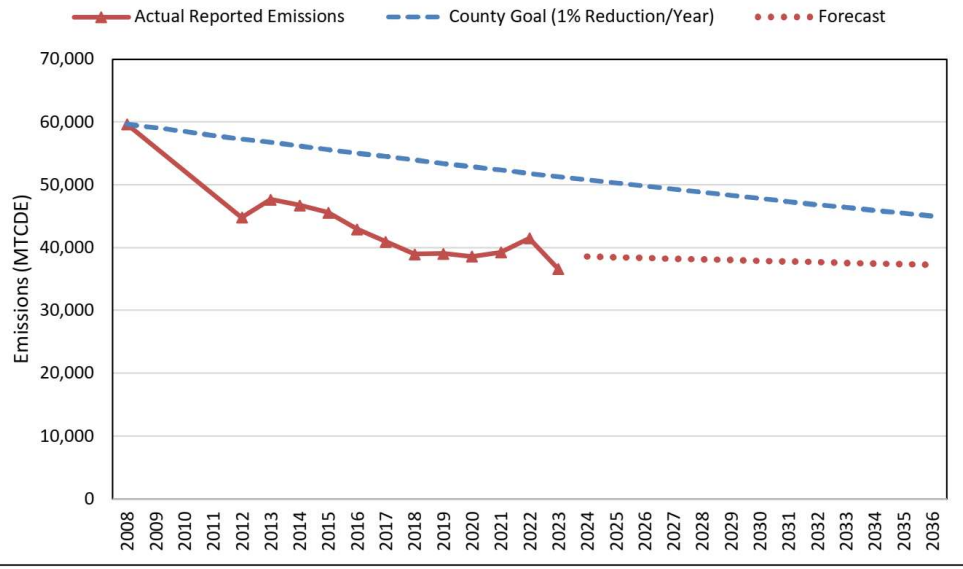
Total GHG Emissions by Department

- Emissions decreased from 2017 totals at the following rates in each department:
  - Water Environment Protection (WEP): -7%
  - Facilities Management: -5%
  - Mobile Sources (all departments): -21%
  - WEP Process Emissions: -3%
  - Department of Transportation: -10%
  - Parks Department: -26%
  - Department of Corrections: -21%
  - County Libraries (OCPL): -9%
  - Sheriff's Office: -20%
  - Emergency Management: -15%
  - Hillbrook Detention Center: -25%
  - Board of Elections: +19%
- The average reduction across all County departments was -11%.

Progress Toward County Reduction Target

- In its 2012 Climate Action Plan (CAP), Onondaga County committed itself to an emissions reduction target of 25% over 25 years, or an average of 1% per year.
- In 2023, County emissions fell to 36,585 MTCDE from a high of 59,648 in the baseline year of 2008, a reduction of 23,063 MTCDE.
- This translates to a reduction of 39% over the 15 years since the baseline year, or an average of 2.6% per year, exceeding the County's goals laid out in the 2012 CAP.

Figure 8
County-Wide Actual Emissions vs. County Emission Goals

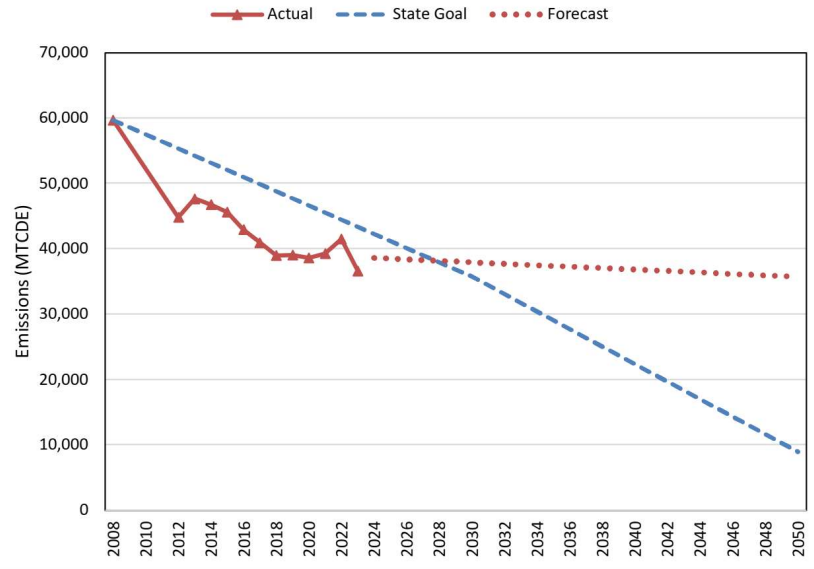


1. No adjustments to reported values were made based on changes to GWP or Emission Factors for the years 2008-2017.
2. Forecasted emissions are projected from actual emissions reported from 2018-2023 to reflect the most recent trends in County Emissions.

Alignment with State Goals

- New York State's Climate Leadership and Community Protection Act (CLCPA) has set goals of a 40% reduction in GHG emissions by 2030 and an 85% reduction by 2050.
- As of 2023, Onondaga County's emissions have decreased by 39% over the 15 years since the County's baseline year of 2008.
- For the County to continue to align with the State's goals, it will be important to support the recommendations that will be developed and included in the County's upcoming CAP Update.

Figure 7
County-Wide Actual Emissions vs. State Emission Goals



Notes:
1. State emission goals are based on the State's CLCPA baseline year of 1990. For County emissions, a baseline year of 2008 was used, since the first GHGI taken was in the year 2008.
2. Statewide emission reduction goals based on a 40% emission reduction by 2030 is based on and 85% emission reduction by 2050 using this 2008 baseline
3. No adjustments to reported values were made based on changes to GWP or Emission Factors for the years 2008-2017.
4. Forecasted emissions are projected from actual emissions reported from 2018-2023 to reflect the most recent trends in County Emissions.

CAP Update Survey

- The Office of the Environment has prepared a survey on the upcoming Onondaga County Climate Action Plan Update.
- We would appreciate it if you could take five minutes to complete this survey so that we can better understand your feelings on the CAP Update and what you think should be included in it later this year.
- You may complete the survey at the link on our website.

OFFICE OF THE
ENVIRONMENT
ONONDAGA COUNTY

Thank You

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