

Executive Summary

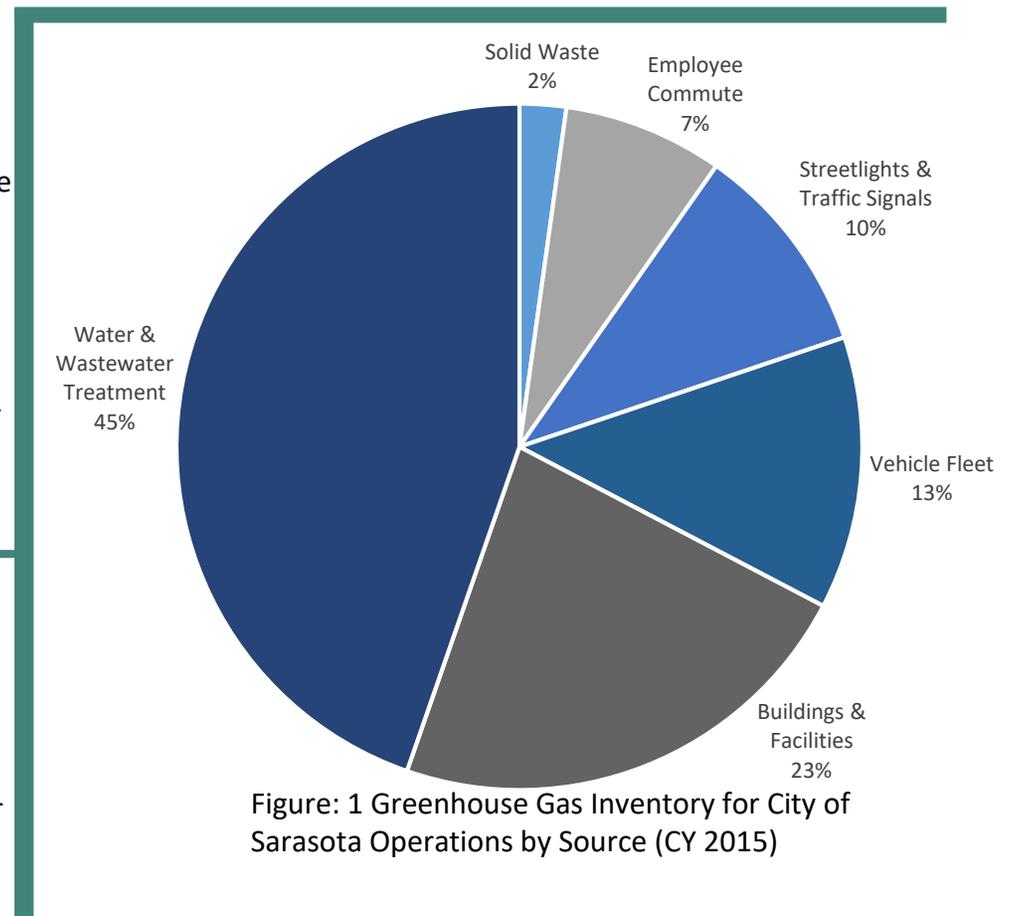
2015 Overview

In order to inform efforts to better understand its climate impact, the City of Sarasota first conducted a greenhouse gas inventory (GHGI) report for calendar years (CY) 2003 and 2007. This established a baseline level of mission-related GHG emissions, to which future reports would be compared. This report, showing data from CY 2015, provides an update to the CY 2003 baseline. The US Local Government Operations Protocol, a national standardized methodology, was used for this report, with data sources and procedure explained in detail. This report, made possible by updating the original data with the new protocol methodology, provides an overview comparison of GHG emissions from 2003, 2007 and 2015. GHG emissions are reported in metric tons of carbon dioxide equivalent (MT CO₂e).

In 2015, the government operations of Sarasota generated a total of 23,991 metric tons CO₂e. This is the equivalent to the greenhouse gas emissions from 5,068 passenger vehicles driven for one year and is 3.6% of the overall community-wide emissions. The Government Operations GHGI includes emissions from electricity use from all government operated facilities, street lights and traffic signals, solid waste and wastewater treatment facilities, vehicle fleet, and commuter vehicles for the City of Sarasota's 887 employees that worked for the City throughout 2015.

Comparison of Result: Baseline (2003) to 2015

There was an **overall 23% decrease in CO₂e emissions** from the City of Sarasota operations between 2003 and 2015. This reduction of emissions is similar to removing 773 houses from the electric grid or 1,547 cars from the road for one year.



Emission sources that have increased since 2003:

Vehicle Fleet: There has been a **47% increase** in CO₂e from city fleet vehicles from 2003 to 2015 levels. City fleet includes police patrol, public works, utilities-related and other government-owned vehicles. The reasoning for this increase is expanded upon in the Inventory Results section of the full report.

Emission sources that have decreased since 2003:

Likely due to a cleaner energy mix and significant efficiency investments, all emissions associated with electricity use decreased between 2003 and 2015. The regional electric grid emission factor rates decreased 26% between 2003 and 2015, illustrating a cleaner fuel supply mix.

Buildings & Facilities kWh has decreased 17% and corresponding CO₂e emission decreased 26%.

Streetlights and Traffic Signals kWh has decreased 12%, while corresponding CO₂e emissions have decreased 26%.

Water and Wastewater Treatment kWh has increased 3% while corresponding CO₂e emissions have decreased 11%.

Emissions have also decreased from the following two sources, based on estimations using best available data.

Solid Waste: The City's smallest emissions source (2%) has seen the most dramatic reduction since baseline year 2003, with an **81% decrease in CO₂e**. This significant change is due to positive methane management investments by Sarasota County at the landfill.

Employee Commute: Based on an internal survey which had 111 responses, averages for employees were computed and an estimated 1,809 metric CO₂e was associated with commuting to and from work. This is a surprising 50% reduction when compared to baseline year 2003. *More examination is needed into this reduction and how this exact methodology compares to 2003, but the 2015 results came with a 92% confidence interval.*

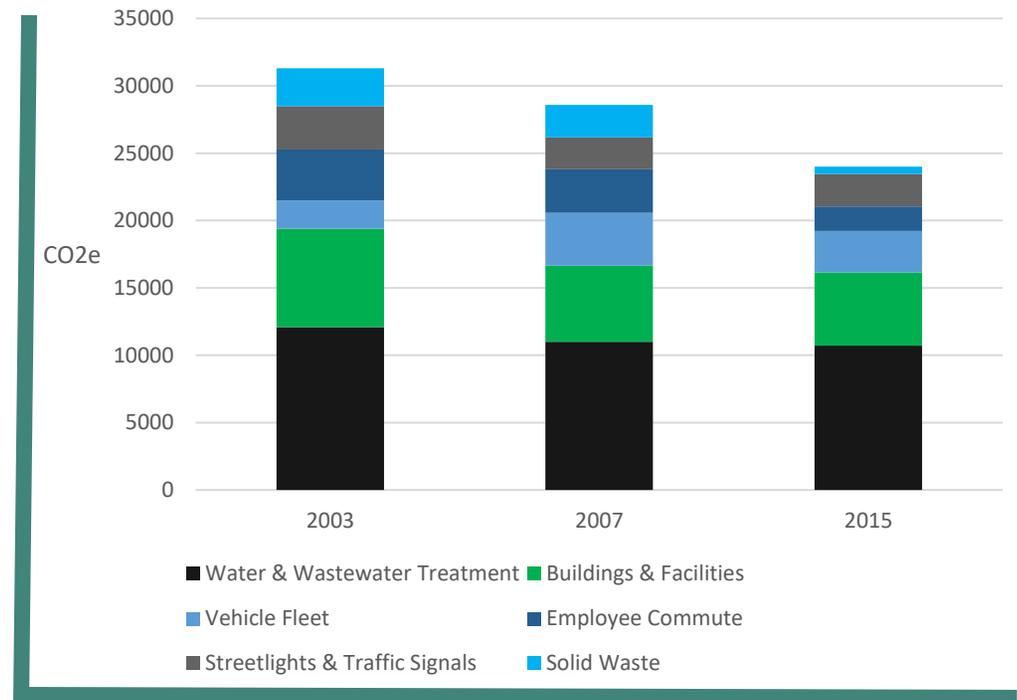


Figure 2: Metric Tons CO₂e: Comparison 2003, 2007, 2015