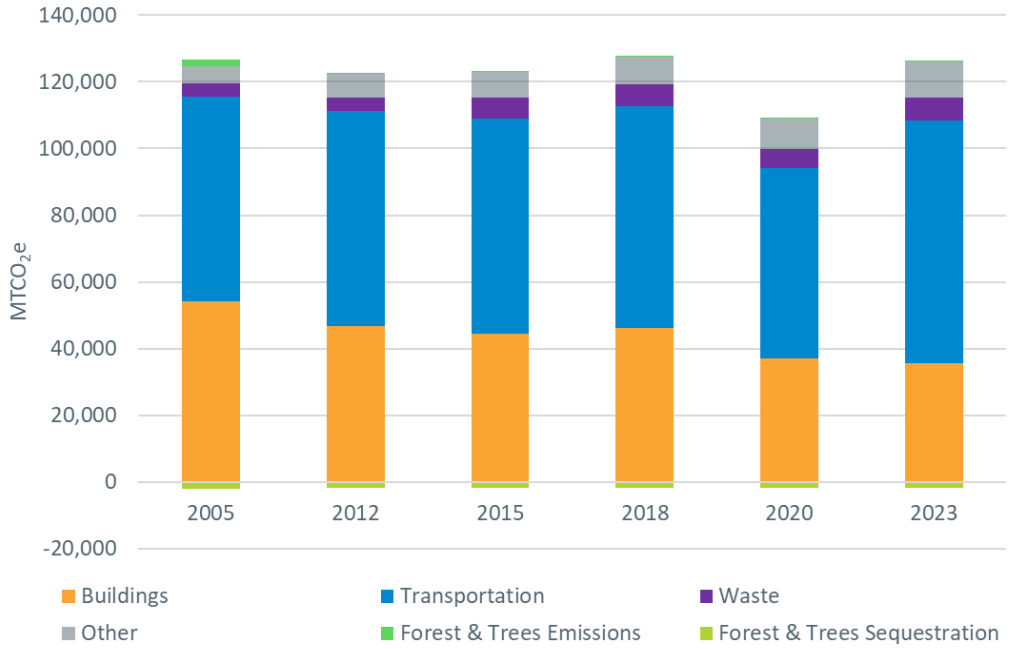
COMMUNITY-WIDE GREENHOUSE GAS INVENTORY SUMMARY

City of Manassas Park, Virginia

EMISSIONS SUMMARY

The City of Manassas Park community-wide net greenhouse gas (GHG) emissions decreased by <1% between 2005 and 2023, despite a 42% growth in population. Forests and trees result in the net sequestration of 1,600 metric tons of CO_2 equivalent ($MTCO_2e$) annually, or 1% of total emissions.



Note: Other refers to emissions associated with the release of Hydrofluorocarbons, emissions resulting from local natural gas system losses within the community, as well as emissions from Agriculture. Net emissions factors in sequestration.

300

hundred $MTCO_2e$ emissions reduced from 2005-2023

This is the equivalent to taking >75 gas-powered passenger vehicles off the road for one year.

28

% total GHG emissions from buildings in 2023

9% from commercial energy consumption and 19% from residential energy consumption

58

% total GHG emissions from transportation in 2023

50% from on-road, 4% from off-road, 3% from air passenger travel, <1% from commuter rail

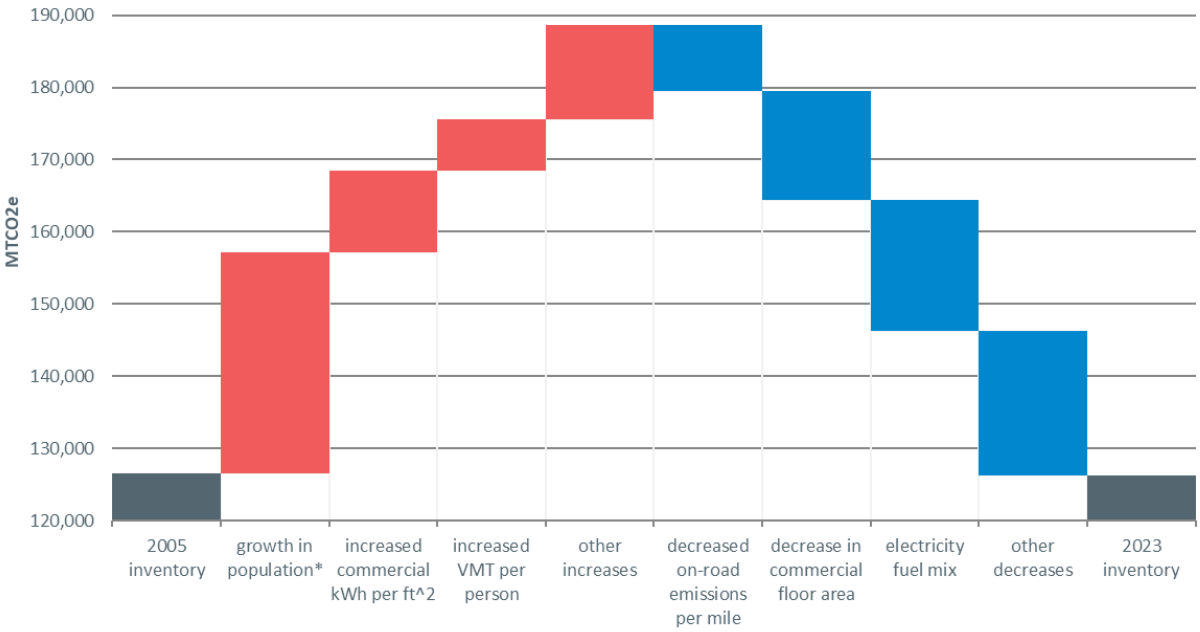
30

% reduction of per capita emissions from 2005-2023

Per capita emissions reduced from 9.8 $MTCO_2e$ in 2005 to 6.9 in 2023.

GHG CONTRIBUTION ANALYSIS

The City of Manassas Park GHG Contribution Analysis results show what has driven increases and decreases in emissions between inventory years 2005 and 2023. The graph shows the main drivers increasing emissions (red bars) are growth in population, increased commercial electricity energy intensity, and increased vehicle miles traveled (VMT) per person. Driving down emissions (blue bars) are mainly a cleaner grid, decreased commercial space, and cleaner cars.



Note: * Includes effects of population on residential energy, VMT, and waste generation.

INVENTORY BACKGROUND AND METHODOLOGY

The Metropolitan Washington Council of Governments (COG) and local governments across metropolitan Washington collaboratively established the regional GHG emission reduction goals of 10% below business-as-usual projections by 2012 (back down to 2005 levels); 20% below 2005 levels by 2020; 50% by 2030; and 80% by 2050. The City of Manassas Park met the regional 2012 goal. Emissions from buildings and transportation saw a greater reduction than anticipated due to the 2020 pandemic.

COG completes GHG community-scale inventories for all 24 local government members, northern Virginia, and metropolitan Washington. COG GHG inventories are compliant with both the U.S. Communities Protocol for Accounting and Reporting Greenhouse Gas Emissions (USCP) and Global Protocol for Community-Scale Greenhouse Gas Inventories (GPC). The inventories measure GHG-emitting activities undertaken by residents, businesses, industry, and government located in metropolitan Washington, as well as emissions from visitors.

RESOURCES

- COG Greenhouse Gas Emissions Inventories Methodology Guide
- COG Greenhouse Gas Inventories
- DMV Climate Partners GHGs in the DMV