

# Memorandum

**REPORT TO:** City Commission

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**SUBJECT:** 2024 Greenhouse Gas Emissions Inventory Report

**MEETING DATE:** September 9, 2025

**AGENDA ITEM TYPE:** Plan/Report/Study

**RECOMMENDATION:** 2024 Greenhouse Gas Emissions Inventory Report

**STRATEGIC PLAN:** 6.3 Climate Action: Reduce community and municipal Greenhouse Gas (GHG) emissions, increase the supply of clean and renewable energy; foster related businesses.

**BACKGROUND:** Greenhouse gases (GHG) trap heat in the atmosphere, contributing to global climate change. Bozeman's community greenhouse gas inventory tracks the carbon dioxide, methane, and nitrous oxide emissions resulting from the combustion of fossil fuels, anaerobic decomposition of organic material, and other processes. Tracking Bozeman's community greenhouse gas provides insights into our current impact on the climate and changes in emissions over time.

Cities are responsible for over 70% of global greenhouse gas emissions and may be regarded as both the problem and solution to climate change. A low-carbon city has the potential to reduce emissions through more efficient infrastructure and planning, contributing to a lower average carbon footprint per person compared to areas outside of cities.

The Intergovernmental Panel on Climate Change (IPCC), the world's leading group of climate scientists, projects a range of future global average temperature increases from a low-emissions scenario of 2.7°F (1.5°F) to a high-emissions scenario of 10.3°F (5.7°C) by the end of the century. The outlook largely depends on the decisions and actions taken by governments and societies to curb GHG emissions.

With the adoption of the 2020 Bozeman Climate Plan, Bozeman established ambitious climate goals. The goals represent our community's fair share of greenhouse gas reductions necessary to meet the Paris Climate Agreement commitment of keeping global warming to 2.7°F (1.5°C), which is widely acknowledged as a critical benchmark due to the significant increased risks

to human health, economic growth, food security, and ecosystems and species if the global long-term average rises above 3.6°F (2.0 °C). The strategies included in the Bozeman Climate Plan aim to reduce the community's GHG emissions 26% below 2008 levels by 2025, achieve 100% net clean electricity by 2030, and achieve carbon neutrality by 2050.

To track progress towards these goals and inform future programming, the City of Bozeman completes a community greenhouse gas emissions (GHG) inventory every two years to monitor emissions within the City of Bozeman's boundary. The inventory was completed by the Sustainability Division using the methodology and reporting template outlined in the Global Protocol for Community-Scale Greenhouse Gas Emissions (GPC) standard to provide a complete, transparent, and accurate accounting of Bozeman's community-wide emissions. The 2024 GHG Inventory includes an analysis of the urban tree canopy to estimate carbon stock and carbon sequestration changes over time. The Sustainability Division will present a summary of the 2024 Community Greenhouse Gas Emissions Inventory Report.

**UNRESOLVED ISSUES:** None.

**ALTERNATIVES:** As suggested by the City Commission.

**FISCAL EFFECTS:** None.

Attachments:

[2024 GHG Emissions Inventory Report.pdf](#)

[2024 GHG Inventory Infographic.pdf](#)

Report compiled on: August 28, 2025