SANTA ROSA FORWARD

Plan Our Future Together

SANTA ROSA FORWARD | GHG REDUCTION STRATEGY PRESENTATION TO CLIMATE ACTION SUBCOMMITTEE

VIRTUAL MEETING | December 14, 2022

Agenda

- Santa Rosa GHG Reduction Strategy Overview
- 2019 GHG Inventory Results
- Next Steps
- Questions and Discussion

Santa Rosa Forward provides an opportunity to rethink planning policies and programs to achieve the community's vision for the future.

The goal is to plan for growth which minimizes adverse impacts of **climate change and increases community resilience** with a **qualified GHG Reduction Strategy**.

Through the Qualified GHG Reduction Strategy, Santa Rosa Forward will:

- Accelerate reductions in GHG emissions from community-wide sources in an equitable and sustainable manner.
- Provide a comprehensive set of goals, policies, and actions to reduce community emission sources through 2050.
- Meet State requirements related to GHG emissions reduction.
- Leverage work of the Regional Climate Protection Authority.
- Integrate climate action and GHG reduction throughout the General Plan.

What is a GHG Reduction Strategy?

- A strategic plan to reduce Santa Rosa's greenhouse gas (GHG) emissions. Includes:
  - Inventory and forecast of GHG emissions in city boundary and planning area.
  - Targets for future GHG emissions.
  - Strategies to reduce GHG emissions.
  - An implementation plan.

- GHG Reduction Strategy is an update to the City's 2012 CCAP in support of Santa Rosa Forward.
- Expands on goals and policies in the General Plan.

What is a GHG Inventory?

- A GHG inventory identifies and estimates the community's annual GHG emissions from community-wide sources and activities, such as energy use, vehicles, water use, and solid waste.
- GHG inventories provide insights into major activities and sources of emissions in a community as well as an understanding of how they change over time.
- The GHG Reduction Strategy includes an updated inventory for 2007 and a new inventory for 2019 (to avoid impacts from COVID).

Inventory Sectors

Transportation
On-road vehicles and SMART train

Off-road equipment
Non-transportation equipment

Agriculture
Fertilizer use

Energy
Residential and nonresidential electricity and natural gas

Solid waste
Garbage from residents and businesses

Water and wastewater
Processing and distribution of water and wastewater

Land use and sequestration
Land development and carbon storage in plants and soils

- Informational sources include stationary sources and wildfires/controlled burns

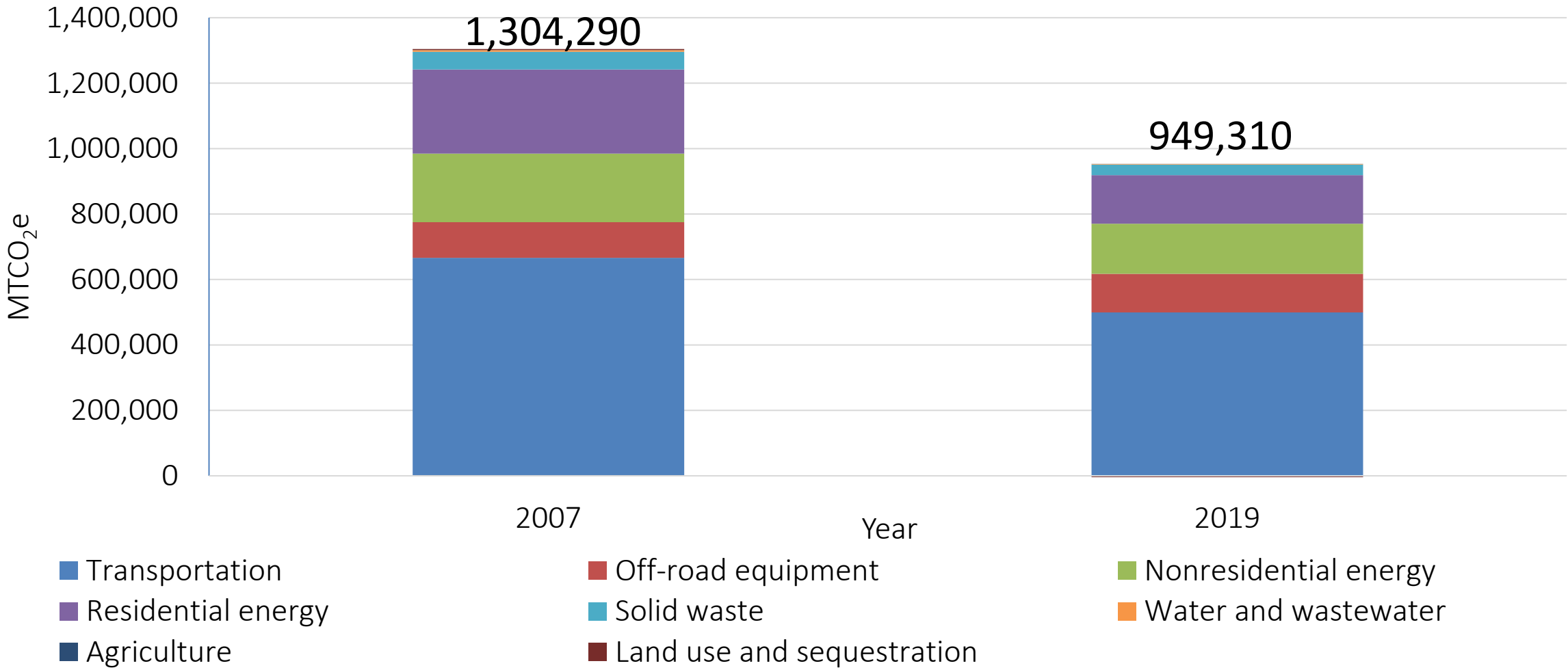
2007 Community-wide Inventory Update

- PlaceWorks updated Santa Rosa's existing 2007 inventory to be consistent with current guidance and protocols.
  - Updated Global Warming Potentials (5th IPCC report).
  - Added land use and sequestration sector.
  - Updated methods for certain sectors or sources:
    - On-road transportation
    - Off-road equipment
    - Agriculture
    - Solid waste
- City limits only

2019 Community-wide Inventory Results

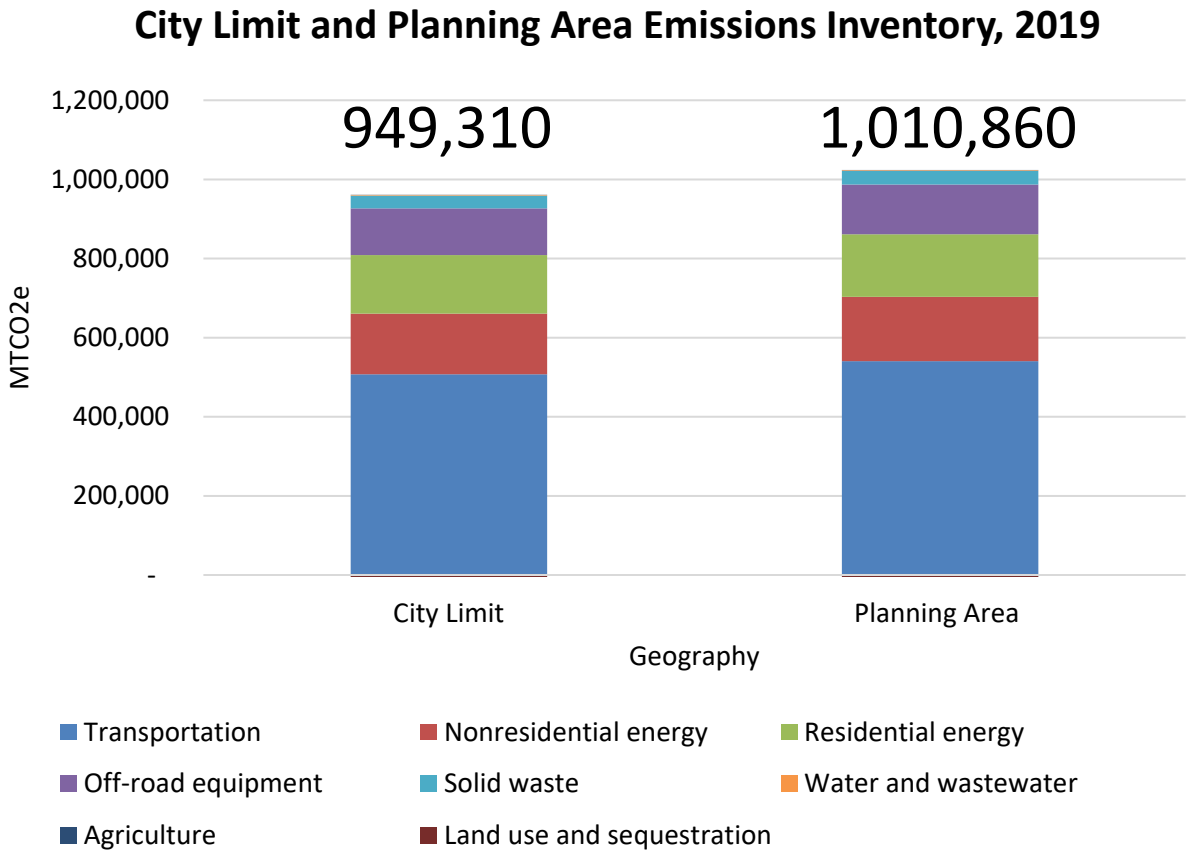
- Total emissions fell 27% from 2007 to 2019 for community-wide emissions within City limits.
- On track to meet 2020 target in 2012 CCAP.
- Significant decreases in emissions from energy due to cleaner energy and increased energy efficiency.
- Increased fuel efficiency lowers transportation-related emissions from what they would be otherwise.
- Decreases in other sectors likely a result of methodological changes.

GHG Emissions Inventory in City Boundary, 2017-2019



GHG Emissions Inventory in Planning Area

- The Planning Area includes the city boundary, the sphere of influence, the urban growth boundary, and additional areas around Santa Rosa.
- Highest emitting sectors for both city limit and planning area:
  - Transportation (53 percent)
  - Nonresidential Energy (16 percent)
  - Residential Energy (16 percent)
  - Offroad Equipment (12 percent)



Key Project Milestones

- Climate Change Vulnerability Assessment – **Complete**
- GHG emissions inventory – **Complete**
- GHG emissions forecast – Winter 2023
- Establish reduction targets* – Winter 2023
- Review existing CAP strategies* – Winter 2023
- Identify and quantify new policies, programs, and actions* – Spring-Summer 2023

**Opportunities for involvement from Climate Action Subcommittee and others.*

Next Steps

- Continue to develop GHG Reduction Strategy in coordination with Santa Rosa Forward General Plan Update:
  - 2030, 2045, and 2050 forecasts of emissions.
  - Goals, policies, and strategies to reduce GHG emissions.
  - Quantification of strategies to demonstrate achievement of local and state targets.
- Integrate goals and strategies into General Plan elements.