



City of St. Helena
Active Transportation and Sustainability
Committee
Regular Meeting
1088 College Avenue, St. Helena, CA 94574
Wednesday, August 2, 2023 @ 5:00 PM

PLEASE NOTE: Any person who wishes to speak regarding an item on the agenda or make a comment under the "Oral Communication" portion of the agenda may do so, but please observe the time limit of four minutes. Members of the public and other parties are welcome to email their comments to the Staff Liaison Erika Opp at eopp@cityofstheleena.org

Page

1. CALL TO ORDER
2. ROLL CALL
Chair: Leslie Stanton
Vice Chair: Jeff Farmer
Members: Glenn Smith, Madelyn Chandler, John Zimmerman
Alternate Members: Amy Beaudine and Anthony Micheli
City Council Member Liaison: Paul Dohring, Mayor
Staff Liaison: Erika Opp, Administrative Analyst
3. PUBLIC FORUM:
An opportunity for the public to directly address the Committee on items of interest to the public that are not listed on the agenda. Any person addressing the Committee should provide his or her name and address, and limit comments to three minutes. **Because of restrictions imposed by the Brown Act, the Committee may not engage in substantive discussion, nor take action on matters not described on the agenda.**
4. REPORTS BY STAFF AND COMMITTEE:
Reports by staff and/or committee on items of general interest. ***Brief questions for clarification may be posed and answered, and Committee may request that items be placed on a future agenda. Except under certain circumstances, the Brown Act prohibits any other discussion or action by the Active Transportation & Sustainability Committee.***
5. CONSENT CALENDAR:
Members of the Active Transportation Committee or the public may ask that any items be considered individually for purposes of considering alternative action, for extended discussion, or for public comment. Unless that is done, on motion may be used to adopt all recommendation actions.
 - 5.1. Active Transportation and Sustainability Committee Special Meeting Minutes of June 21, 2023 3 - 6
[Minutes ATSC June 21 Special Meeting](#)
6. SCHEDULED MATTERS:
 - 6.1. Napa Countywide Greenhouse Gas Emission Inventory Presentation by David Morrison, Interim County Executive Officer 7 - 30
[Napa Countywide Greenhouse Gas Emission Inventory Presentation](#)

7. FUTURE AGENDA ITEMS:

- 7.1. 1. Active Transportation Plan Phase II
2. Potential Reusable Foodware and Waste Reduction Ordinance
3. Main Street crossing study/Urban Land Use Institute presentation
4. Review and make potential recommendations for modification to City Ordinance 15.36.050 section 503.4.1
5. Review Trails and Open Spaces program

8. ADJOURNMENT

The next regular Active Transportation Committee meeting is scheduled for September 6, 2023 at 5:00 pm, St. Helena City Hall, 1088 College Avenue, St. Helena.

This agenda was posted at City Hall, 1088 College Avenue, St. Helena on July 28, 2023.

Erika Opp, Administrative Analyst

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in the meeting, please contact City Hall at (707) 967-2792. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting (28 CFR35.102-35.104 ADA Title II). However, City staff will attempt to assist at any time with accessibility.



**Minutes
City of St. Helena
Active Transportation and Sustainability
Committee
Special Meeting
City Hall, 1088 College Avenue, St. Helena
Wednesday, June 21, 2023 @ 5:00 PM**

PLEASE NOTE: Any person who wishes to speak regarding an item on the agenda or make a comment under the "Oral Communication" portion of the agenda may do so, but please observe the time limit of four minutes. Members of the public and other parties are welcome to email their comments to the Staff Liaison Erika Opp at eopp@cityofstheleena.org

1. CALL TO ORDER

2. ROLL CALL

Chair: Leslie Stanton

Vice Chair: Jeff Farmer

Members: Glenn Smith, Madelyn Chandler, John Zimmerman

Alternate Members: Amy Beaudine and Anthony Micheli

City Council Member Liaison: Paul Dohring, Mayor

Staff Liaison: Erika Opp, Administrative Analyst

Present: Chair Leslie Stanton, Vice Chair Jeff Farmer, and Commissioners Madelyn Chandler, Amy Beaudine and Anthony Micheli

City Council Liaison: Paul Dohring, Mayor

Absent: Commissioners Glenn Smith and John Zimmerman

3. PUBLIC FORUM:

An opportunity for the public to directly address the Committee on items of interest to the public that are not listed on the agenda. Any person addressing the Committee should provide his or her name and address, and limit comments to three minutes. **Because of restrictions imposed by the Brown Act, the Committee may not engage in substantive discussion, nor take action on matters not described on the agenda.**

No public comment was received.

4. REPORTS BY STAFF AND COMMITTEE:

Reports by staff and/or committee on items of general interest. ***Brief questions for clarification may be posed and answered, and Committee may request that items be placed on a future agenda. Except under certain circumstances, the Brown Act prohibits any other discussion or action by the Active Transportation & Sustainability Committee.***

No reports were made.

5. CONSENT CALENDAR:

Members of the Active Transportation Committee or the public may ask that

any items be considered individually for purposes of considering alternative action, for extended discussion, or for public comment. Unless that is done, on motion may be used to adopt all recommendation actions.

5.1. Active Transportation and Sustainability Committee Meeting Minutes of May 3, 2023

Jeff Farmer moved to approve consent. The motion was seconded by Leslie Stanton and unanimously approved by the committee.

At 5:04 pm Madelyn Chandler and Amy Beaudine joined the meeting.

6. SCHEDULED MATTERS:

6.1. Napa Valley Vine Trail Construction update for St. Helena/Calistoga segment opening in November - presentation by the Napa Valley Vine Trail

Shawn Casey-White, Napa Valley Vine Trail Coalition Executive Director provided a presentation.

No public comment received.

6.2. Traffic Safety Issues and Proposed Remedies for Pratt Ave., South Crane Ave., Madrona Ave. and Spring Mountain Road
Prepared By: Joseph Leach, Public Works Director and City Engineer

Public Works Director Joseph Leach reported on this item.

Public Comment received by Ross Allen and Carlotta Sainato with the Napa County Bicycle Coalition

Jeff Farmer made motion to recommend to City Council to authorize implementation of recommended actions that do not require an engineering & traffic study, including the following with an amendment provided by Madelyn Chandler. The motion was seconded by Madelyn Chandler and the committee unanimously approved.

Entrance to Crane Park

- Install two "slow" signs fastened to the existing upright sign posts

Spring Mountain Road and Hillview Avenue

- Paint red zones at this intersection on all four corners
- Investigate bulb-outs at Spring Mtn/Hillview intersection

Madrona Avenue at Spring Mountain Road

- Paint red zones at intersection on the northwest and northeast corners

Pratt Avenue

- Traffic calming - Investigate speed calming solutions, including speed cushions.
- Madrona Avenue (between Riesling Way & Hudson Ave & Allyn Ave): Investigate speed control measures

Anthony Micheli departed the meeting.

6.3. June 30, 2023 ATSC Expiring Two Terms

Community members should apply at:
<https://sthelena.civicweb.net/Portal/BoardApplication/>
Prepared By: Cindy Tzaopoulos, City Clerk

City Clerk Cindy Tzaopoulos reported on this item.

No Public Comment received.

6.4. Consideration to cancel the July meeting
Prepared By: Cindy Tzaopoulos, City Clerk

City Clerk Cindy Tzaopoulos reported on this item.

No public comment received.

It was the consensus of the Committee to cancel the meeting in July.

7. FUTURE AGENDA ITEMS:

- 7.1. 1. Napa Countywide Greenhouse Gas Emission Inventory
 Presentation by David Morrison, Interim County Executive
 Officer
 2. Active Transportation Plan Phase II
 3. Potential Reusable Foodware and Waste Reduction Ordinance
 4. Main Street crossing study/Urban Land Use Institute
 presentation

8 ADJOURNMENT

The next regular Active Transportation Committee meeting is scheduled for August 2, 2023 at 5:00 pm, City Hall, 1088 College Avenue, St. Helena.

Meeting was adjourned by Chair Stanton at 6:30PM

APPROVED:

Leslie Stanton, Chair

ATTEST:

Erika Opp, Administrative Analyst



St. Helena ATSC: 8-2-2023



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Outline

- Summary of greenhouse gas (GHG) local inventory and forecast.
- Review of State and local actions.
- Examples of other regional climate planning.
- Questions and discussion for elected officials to consider.

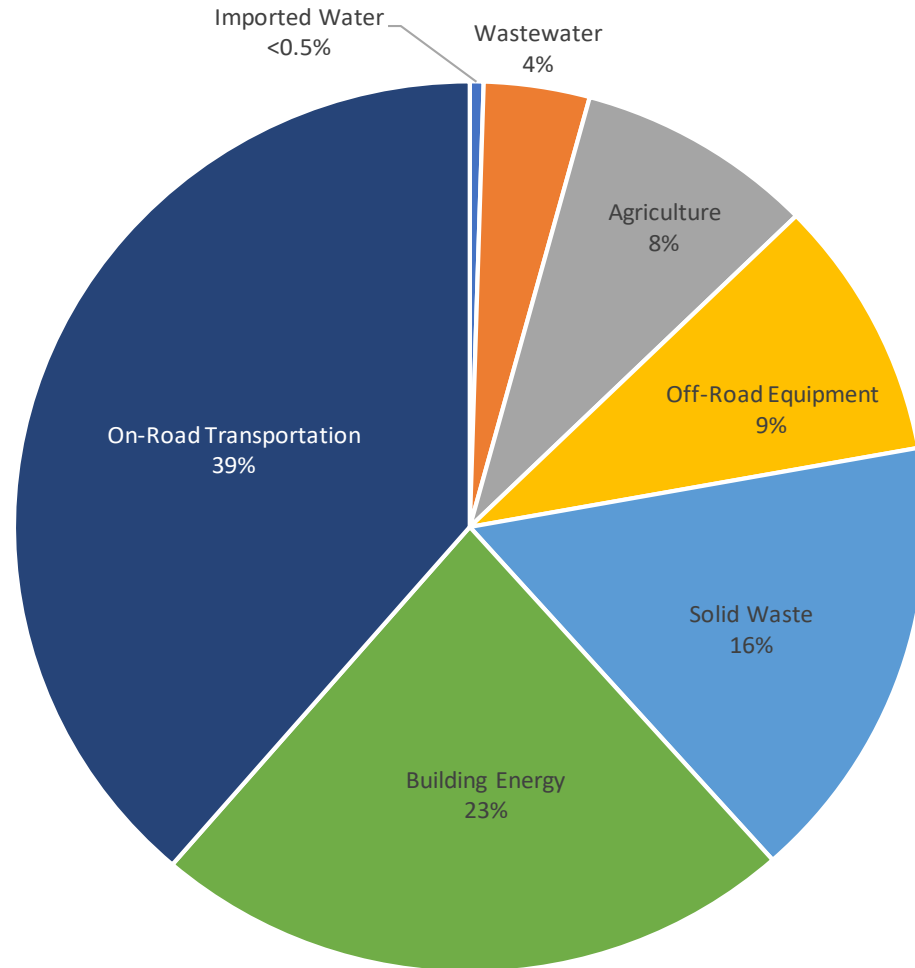


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What are the regional GHG sources?



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What are the main sources by sector?



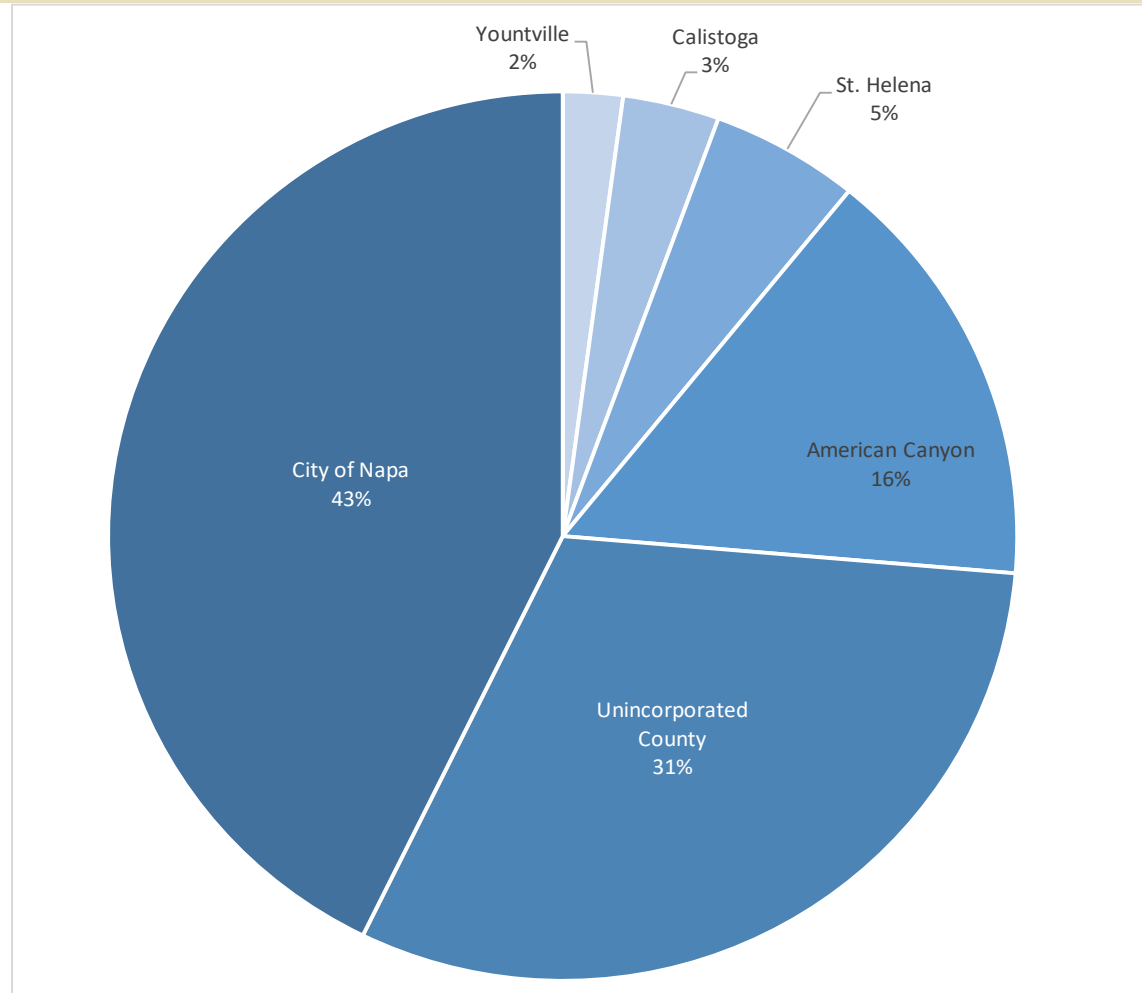
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- 75% of building energy emissions are from natural gas.
- 67% of on-road transportation emissions are from commercial vehicles
- Solid waste includes historic garbage deposited at the two landfills located in the unincorporated County
- 25% of off-road equipment emissions are from lawn and garden equipment
- 46% of agricultural emissions are from off-road equipment

Where do GHG emissions occur?



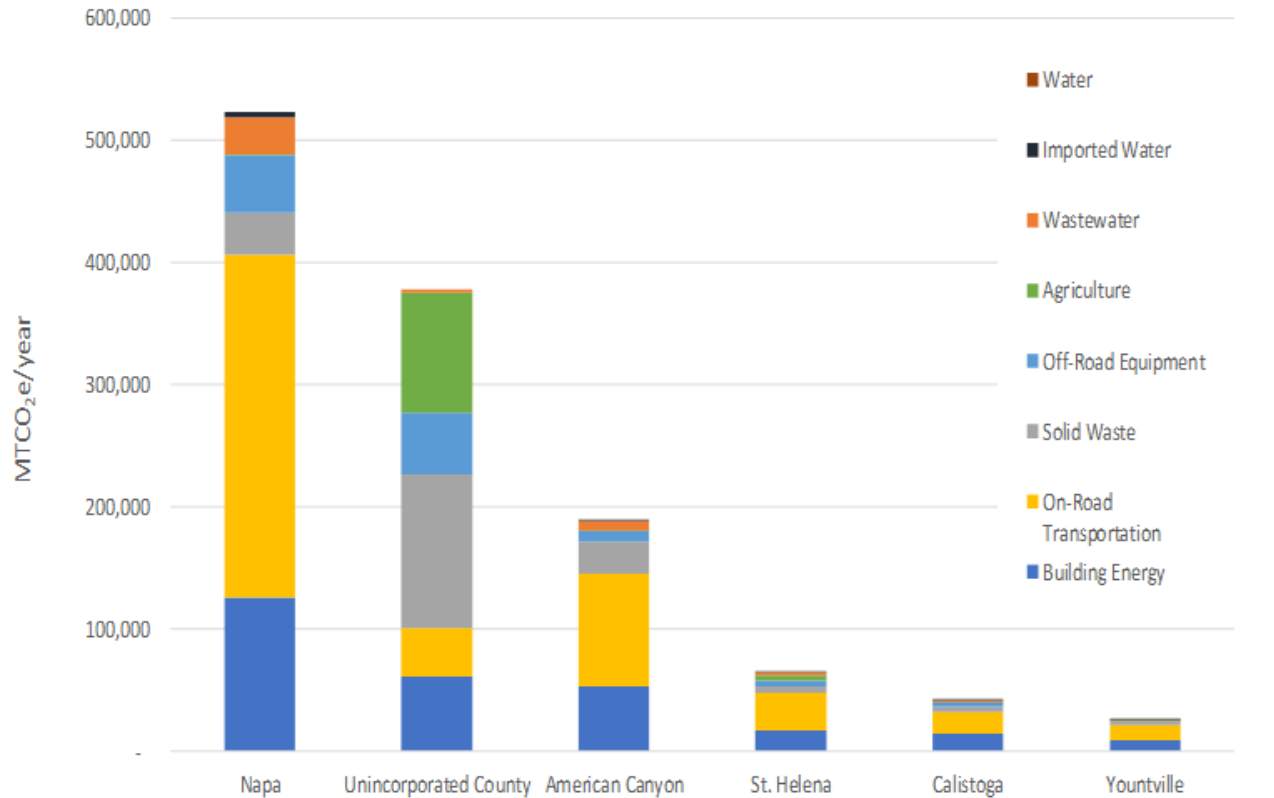
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How do jurisdictions vary?



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City of St. Helena



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2019 Napa County Regional Greenhouse Gas Inventory by Jurisdiction and Sector (MTCO₂e/year)

Emissions Sector	American Canyon	Calistoga	Napa	St. Helena	Yountville	Unincorporated County	Total
On-Road Transportation	91,830	17,184	280,533	30,661	12,404	40,063	472,677
Building Energy	53,432	24,450	125,346	16,766	8,532	61,068	2279,592
Solid Waste	25,938	4,981	34,236	5,676	2,601	125,429	198,862
Off-Road Equipment	8,998	2,880	47,238	4,502	1,328	50,602	115,548
Agriculture	154	274	1,086	4,415	75	97,378	103,381
Wastewater	7,822	1,994	29,542	2,270	1,040	3,191	45,858
Imported Water	983	229	4,383	285	65	-	5,943
Total	189,156	41,990	522,363	64,575	26,047	377,731	1,221,861
Emissions per capita	9.0	7.9	6.6	10.6	9.3	15.1	8.8
Emissions per SP	7.0	5.1	4.0	5.4	6.7	6.8	5.2
Transportation Emissions per capita	2.5	2.7	1.6	2.8	3.1	2.4	2.0

Notes: MTCO₂e/year = metric tons of carbon dioxide equivalent per year. SP = service population (population + jobs) (See Table 6).

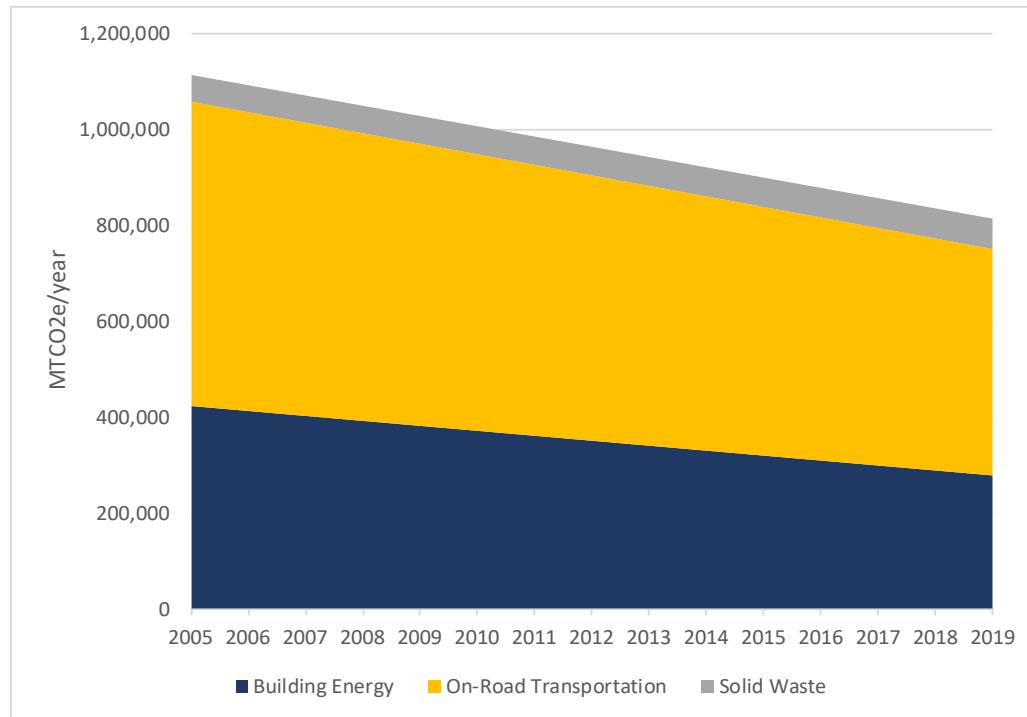
Source: Prepared by Ascent Environmental in 2022.

How does 2019 compare with 2005?

- 26% decrease in on-road vehicle emissions.
- 34% decrease in building energy.
- 17% increase in solid waste.
- 27% total decrease in these three sectors.



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What does 2030 look like?

With State/Federal legislation, we will see:

- 5% decrease in total GHG emissions.
- Decreases will occur in imported water (-24%); on-road transportation (-22%); and agriculture (-11%).
- Increases will occur in wastewater (16%), solid waste (13%), off-road equipment (13%), and building energy (3%).

Without State/Federal legislation, total emissions will be 17% higher in 2030 than in 2019.

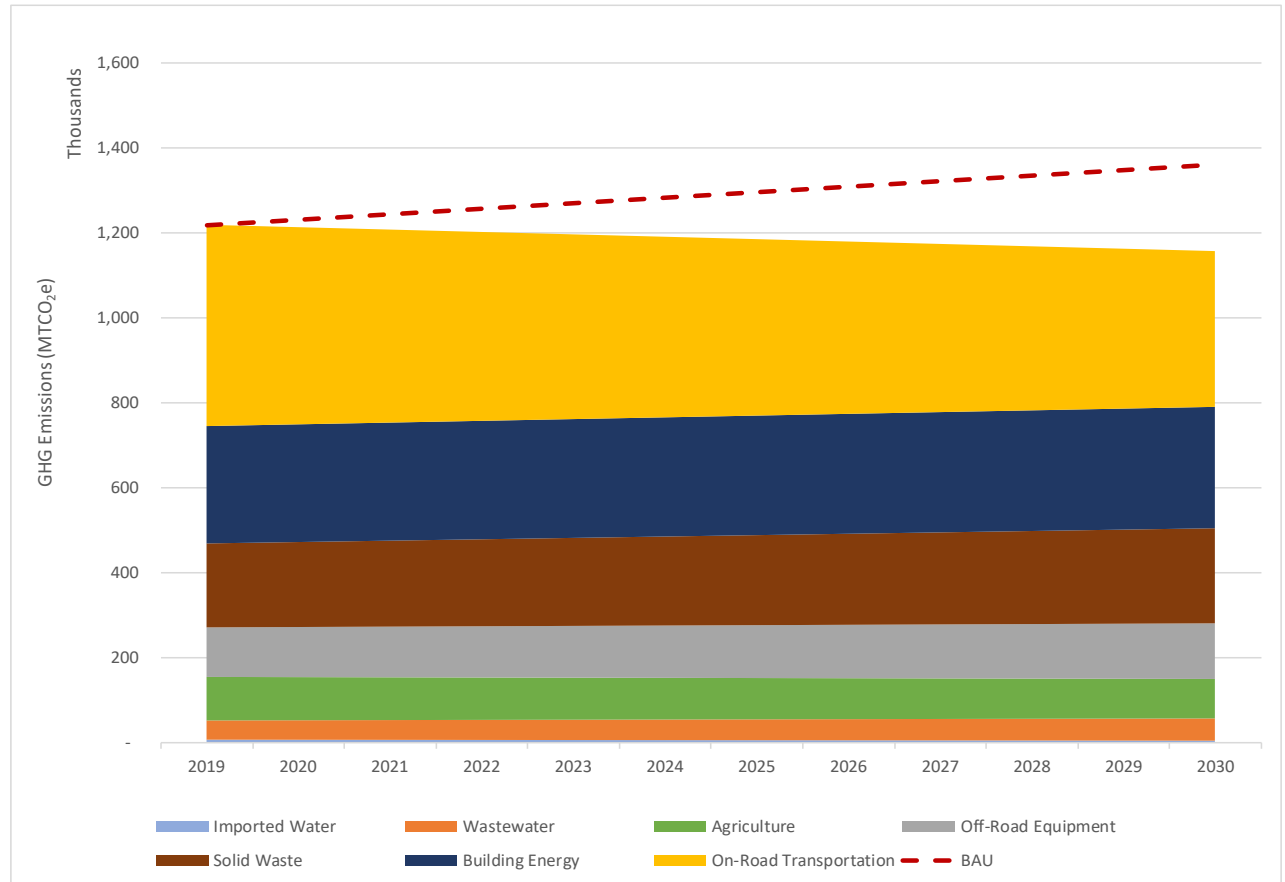


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What does 2030 look like?



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What is the State doing?

- **Governor**

- Achieve statewide carbon neutrality as soon as possible, and no later than 2045 (AB 1279).
- Create clean electricity targets of: 90% by 2035; 95% by 2040; and 100% by 2045 (SB 1020).
- Establish a regulatory framework for carbon removal and carbon capture, utilization and sequestration (SB 905 and 1314).
- Develop an achievable carbon removal target for natural and working lands (AB 1757).



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What is the State doing?

- **California Air Resources Board** 2022 Climate Scoping Plan calls for:
 - 100% of light/medium trucks sales are EV by 2040;
 - 20% of aviation fuel is met by batteries or hydrogen by 2045;
 - All electric appliances in new buildings by 2026 (residential) and 2029 (commercial);
 - 25% of ag and construction equipment electric by 2030 and 75% by 2045;
 - 100% locomotive sales electric by 2035;
 - 20% of ag must be organic by 2045; and
 - Protect 2.5 million acres of forest and grassland annually from land conversion.



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What is local government doing?

All jurisdictions are required by law to:

- Address 'climate adaptation and resilience' in their Safety Element (Senate Bill 379), but only 40% have complied).
- Address 'climate change' through the California Environmental Quality Act (CEQA), both at the project and the cumulative level.
- Implement new construction standards through updated Building Codes.
- A Climate Action Plan is not required, although 30% of cities and counties have adopted one.



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What is local government doing?



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Each of the cities, town, and county in Napa have:

- Adopted individual Climate Action Plans or are in the process of preparing/updating plans.
- Adopted a Climate Emergency Proclamation.
- Participate in and fund the Napa Countywide Climate Action Committee.
- Provide public outreach and education on green and sustainable programs.
- Implement a variety of energy efficiency and GHG reduction activities appropriate for their individual community.

What are other regions doing?



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- **Regional Climate Protection Authority (2009)** – Provides or information and collaboration for Sonoma County and 9 cities.
- **Regional Climate Action Plan (2019)** – Provides goal setting and collaboration for the county, 7 cities, and the Redwood Coast Energy Authority.
- **Tahoe Regional Planning Agency (1969)** – Provides a plan for 2 states, 4 counties, 2 cities, and a Presidential appointee to implement.
- **San Diego Association of Governments (2010)** – Provides climate information and planning for the county and 19 cities.



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THANK YOU

David Morrison
Interim CEO, Napa County

david.morrison@countyofnapa.org

From: [Christopher J Warner](#)
To: [Erika Opp](#)
Cc: [Jeff Farmer](#)
Subject: [External] ATSC Meeting Aug 2 - Greenhouse Gas Inventory
Date: Tuesday, August 1, 2023 1:44:53 PM
Attachments: [St Helena GHG Inventory.pdf](#)

Erika, feel free to share these comments with the members of the ATSC and public for the Aug 2 ATSC meeting, Agenda Item 6.1. Presentation on Napa Countywide Greenhouse Gas Inventory

The Napa GHG inventory is an excellent starting point for local and county measures and initiatives to practically and specifically address and reduce locally-generated greenhouse gas emissions. Our city representatives, including Council member Anna Choteau, are to be commended for their support and hard work on developing the GHG inventory for use by all of us in the community.

My primary comment is on the practical limitations on local control and mitigation of one of the key sources of GHG emissions, on-road transportation. As the St. Helena portion of the GHG inventory study indicates (see attached), on-road transportation, both commercial and non-commercial transportation, constitutes about 40% of the GHG emissions attributable to St. Helena based on "vehicle miles traveled." However, through already existing state and federal measures, these St. Helena on-road transportation GHG emissions are projected to be reduced by nearly 20% from current levels by 2030.

This should be good news in terms of forecast reductions from GHG emitting traffic on our roads. However, St. Helena itself has very little control or jurisdiction over on-road transportation to begin with, and it is not clear that the amount in the inventory attributable to St. Helena "vehicle miles traveled" are actual St. Helena-related or needing mitigation, vs. related to types of on-road transportation that are through St. Helena city limits for destinations north or south of the city, or for commercial, retail business or hospitality purposes that St. Helena actually would like to encourage.

Likewise, incentives for non-emitting vehicles, such as electric vehicle charging stations, are largely within the funding jurisdiction of the state and federal governments, with fairly generous financial incentives already available.

This does not mean that St. Helena and the ATSC have no significant role in mitigating and reducing on-road transportation GHG emissions. Voluntary measures and incentives such as congestion-reduction and more abundant parking and vanpooling incentives can be beneficial. However, more specific, prescriptive limits on on-road transportation based on VMT in St. Helena would not seem cost-effective or as having any significant marginal benefits in terms of additional reductions of on-road transportation emissions compared to the 19% in reductions already included in the GHG inventory's 2030 projections.

Thank you for considering these comments.

Chris Warner
 1434 Grayson Avenue
 415-309-9572

Memo



455 Capitol Mall, Suite 300
Sacramento, CA 95814
916.444.7301

Date: November 29, 2022
To: David Morrison and Deborah Elliott (County of Napa)
From: Honey Walters and Brenda Hom (Ascent Environmental, Inc.)
Subject: Final Napa County Regional Greenhouse Gas Forecast (2019 – 2030)

1 INTRODUCTION

This technical memorandum presents an estimated forecast of communitywide greenhouse gas (GHG) emissions for the Napa County region (region), including forecasts for each of the six jurisdictions: American Canyon, Calistoga, the City of Napa, St. Helena, Yountville, and the unincorporated areas of Napa County (Unincorporated County) under “business-as-usual” (BAU) and legislative-adjusted BAU scenarios for the year 2030. These forecasts are based on the results of the 2019 communitywide GHG emissions inventory, as well as associated methods, assumptions, emissions factors, and data sources used to develop the updated emissions inventory described in the Napa County Region 2019 Community Greenhouse Gas Inventory Update Summary memorandum that was delivered to the County of Napa (County) on June 7, 2022.

This forecast provides an estimate of future GHG levels based on a continuation of current trends in activity, while also accounting for Federal and State legislative actions to reduce emissions in the future. Such that regional departments and agencies may also choose to expand the scope of their individual documents to address climate adaptation, GHG emissions forecasts provide insights to the scale of regional and local reductions needed to achieve GHG emissions reduction targets. Regional activities could include an incorporation of information contained herein into a General Plan, Climate Action Plan, or other planning document.

1.1 ORGANIZATION OF THIS MEMORANDUM

This memorandum consists of three parts:

- ▶ Section 1: Summary of Inventory Results presents an overview of the region’s 2019 GHG emissions inventories for each jurisdiction.
 - ▶ Section 2: Communitywide GHG Emissions Forecasts summarizes the forecasted GHG emissions under BAU and legislative-adjusted BAU scenarios for 2030. The first scenario, called the BAU scenario, does not account for GHG emissions reductions resulting from laws and regulations adopted by local, regional, State, or federal agencies; it illustrates how much emissions would increase due to population and economic growth if no actions to reduce emissions were taken. The second scenario, a legislative-adjusted BAU scenario, shows emissions reductions from laws and regulations enacted by regional, State, and federal agencies; it does not reflect region’s actions to reduce GHG emissions. This section will also describe the data, methods, and assumptions used to quantify the forecasted emissions.
 - ▶ Section 3: GHG Emissions Forecast by Jurisdiction summarizes the regional GHG emissions forecasts by each jurisdiction. This section presents the results for each jurisdiction only without additional detail related to the data, methods, and assumptions, except those that are unique to the jurisdiction.
-

2 SUMMARY OF INVENTORY RESULTS

2.1 2019 REGIONAL GHG INVENTORY RESULTS

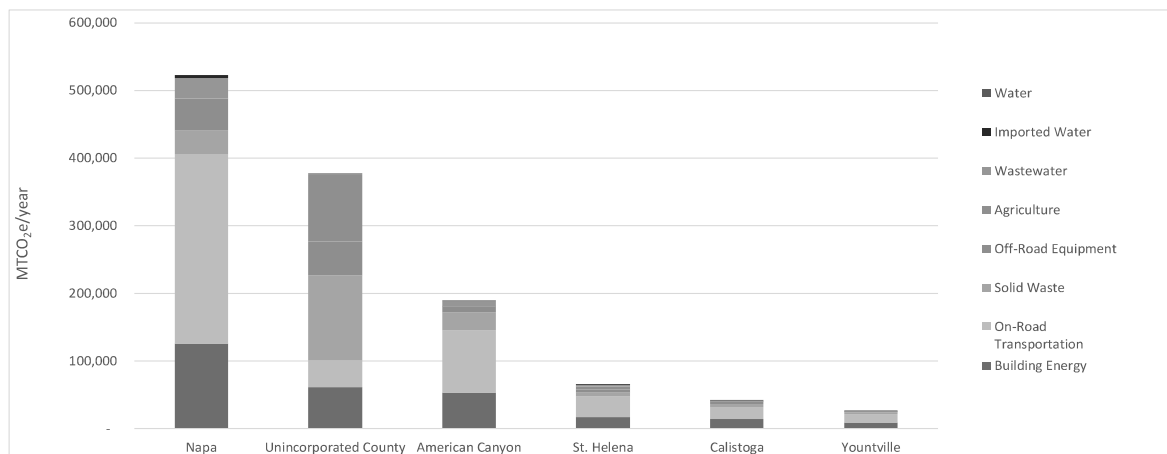
Based on the modeling conducted, regional communitywide sources generated 1.2 million metric tons of carbon dioxide equivalent (MTCO₂e) in 2019. Major emissions sectors for the region included on-road transportation, building energy use, and solid waste. Emissions tend to be proportional to the level of economic activity in a jurisdiction (e.g., agricultural activity in the Unincorporated County, job and population centers in the City of Napa). Table 1 and Figures 1 and 2 present the region's 2019 GHG emissions inventory by jurisdiction and by sector.

Table 1 2019 Napa County Regional Greenhouse Gas Inventory by Jurisdiction and Sector (MTCO₂e/year)

Emissions Sector	American Canyon	Calistoga	Napa	St. Helena	Yountville	Unincorporated County	Total
On-Road Transportation	91,830	17,184	280,533	30,661	12,404	40,063	472,677
Building Energy	53,431	14,450	125,346	16,766	8,532	61,068	279,592
Solid Waste	25,938	4,981	34,236	5,676	2,601	125,429	198,862
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Agriculture	154	274	1,086	4,415	75	97,378	103,381
Wastewater	7,822	1,992	29,542	2,270	1,040	3,191	45,858
Imported Water	983	229	4,383	285	65	0	5,943
Total	189,156	41,990	522,363	64,575	26,047	377,731	1,221,861

Notes: MTCO₂e/year = metric tons of carbon dioxide equivalent per year.

Source: Prepared by Ascent Environmental in 2022.



Source: Prepared by Ascent Environmental in 2022.

Figure 1 2019 Napa County Regional Greenhouse Gas Emissions Inventory by Jurisdiction and Sector (MTCO₂e/year)

4.4 ST. HELENA

Emissions Summary

Table 43 shows a summary of the 2019 emissions inventory and legislative-adjusted forecast for the City of St. Helena. St. Helena's emissions are anticipated to decrease by 10 percent between 2019 and 2030, largely due to the decrease in on-road transportation emissions. As shown in Table 43, although on-road transportation emissions are anticipated to decrease by 19 percent based on change in vehicle emissions standards and VMT forecasts St. Helena, this sector will remain the highest emitting sector in the city's inventory by 2030 (MTC 2015).

Table 43 Emissions Inventory and Legislative-Adjusted BAU Emissions Forecasts: St. Helena (MTCO₂e/year)

Sector	2019	2030	Percent Change	Difference
Agriculture	4,415	4,273	-3%	-141
Building Energy	16,766	15,850	-5%	-916
Imported Water	285	203	-29%	-82
Off-Road Equipment	4,502	4,079	-9%	-423
On-Road Transportation	30,661	24,958	-19%	-5,704
Solid Waste	5,676	6,199	9%	523
Wastewater	2,270	2,389	5%	119
Total	64,575	57,950	-10%	-6,625

Notes: BAU = business-as-usual; GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Source: Ascent Environmental 2022.

BUILDING ENERGY

Accounting for population and employment growth, changes in utility emission factors, and greater efficiencies in newer construction per Title 24 Building Energy Efficiency Standards, St. Helena's building energy-related emissions are anticipated to decrease by five percent between 2019 and 2030. This reduction is likely due to the reductions in electricity-related emissions outweighing the increases in natural gas use and related emissions.

Table 44 Building Energy GHG Emissions Inventory and Legislative-Adjusted BAU Emissions Forecasts: St. Helena (MTCO₂e/ year)

Energy Type	2019	2030	Percent Change
Residential			
Electricity	1,434	878	-39%
Natural Gas	6,394	6,801	6%
Subtotal	7,828	7,678	-2%
Non-Residential			
Electricity	2,122	1,300	-39%
Natural Gas	6,815	6,871	1%
Subtotal	8,937	8,171	-9%
Total	16,766	15,850	-5%

Notes: Totals may not sum due to rounding. BAU = business-as-usual; GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Source: Ascent Environmental 2022.



ON-ROAD TRANSPORTATION

Consistent with the VMT forecasts provided by MTC and anticipated improvement in vehicle emissions standards per CARB's ZEV mandate, and other adopted regulations which can reduce average vehicle GHG emissions per mile St. Helena's on-road transportation emissions are anticipated to decrease by 19 percent between 2019 and 2030, see Table 45.

Table 45 On-Road Transportation GHG Emissions Inventory and Legislative-Adjusted BAU Forecasts: St. Helena (MTCO₂e/year)

Trip Type	2019	2030	Percent Change
Commercial Trips	11,286	9,476	-16%
Non-Commercial Trips	19,376	15,482	-20%
Total	30,661	24,958	-19%

Notes: BAU = business-as-usual; GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Source: Ascent Environmental 2022.

OFF-ROAD EQUIPMENT

Table 46 displays inventory and legislative adjusted forecasts for off-road equipment for St. Helena. As shown in Table 46, St. Helena's off-road equipment emissions are anticipated to decrease by nine between 2019 and 2030. Emissions generated from light commercial equipment are expected to decrease the most (46 percent) with consideration of future emission standards for off-road equipment from CARB's OFFROAD 2021 model. Most off-road equipment sources are anticipated to increase by less than 10 percent except construction and mining, lawn and garden equipment, recreational equipment, transportation refrigeration units, and light commercial equipment.

Table 46 Off-Road Transportation Vehicles and Equipment GHG Emissions Inventory and Legislative-Adjusted BAU Forecasts: St. Helena (MTCO₂e/year)

Source	2019	2030	Percent Change
Industrial	325	329	1%
Airport Ground Support	0	0	0%
Commercial Harbor Craft	8	8	1%
Construction and Mining	615	687	12%
Lawn and Garden Equipment	1,254	1,392	11%
Light Commercial Equipment	1,436	782	-46%
Pleasure Craft	0	0	0%
Portable Equipment	596	603	1%
Railyard Operations	23	23	1%
Recreational Equipment	117	132	12%
Transport Refrigeration Units	128	123	-4%
Total	4,502	4,079	-9%

Notes: BAU = business-as-usual; GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Source: Ascent Environmental 2022.

AGRICULTURE

St. Helena does not have a substantial presence of agricultural activity within its jurisdiction. Table 47 shows that the limited agricultural activities in the city (e.g., agricultural offroad equipment, use of fertilizers, and limited livestock



presence) would decline by five percent between 2019 and 2030, in proportion with regional trends in the reduction in agricultural acres over the last decade.

Table 47 Agricultural GHG Emissions Inventory and Legislative-Adjusted BAU Forecasts: St. Helena (MTCO₂e/year)

Source	2019	2030	Percent Change
Agricultural Offroad Equipment	971	796	-18%
Fertilizer Application	447	442	-1%
Irrigation Pumps	2,623	2,595	-1%
Livestock	373	370	-1%
Total	4,415	4,203	-5%

Notes: BAU = business-as-usual; GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Source: Ascent Environmental 2022.

SOLID WASTE

Waste Generation

St. Helena generated approximately 14,258 tons of solid waste in 2019 which generated 5,676 MTCO₂e in emissions. Solid waste generation is anticipated to grow proportionally to population growth. Given that waste generation emissions are proportional to amount of waste generated, both St. Helena's waste disposal and related emissions are anticipated to increase by nine percent from 2019 to 2030, commensurate with population growth.

Table 48 Solid Waste GHG Emissions Inventory and Legislative-Adjusted BAU Forecasts: St. Helena (MTCO₂e/year)

Source	2019	2030	Percent Change
Solid Waste Generation Tonnage	14,258	15,571	9%
Solid Waste Generation Emissions	5,676	6,199	9%

Notes: BAU = business-as-usual; GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Source: Ascent Environmental 2022.

Waste-in-Place

St. Helena does not have any landfills located within its jurisdiction. Thus, there are no waste-in-place emissions attributable to this jurisdiction.

IMPORTED WATER

St. Helena is anticipated to increase its usage of imported water by five percent by 2030 from 2019 levels, commensurate with population growth. However, emissions from imported water are expected to decline by 29 percent over the same period. This is due to the change in emissions factors associated with the electricity used for pumping imported water (i.e., from the state water project). The average California electricity emissions factors, available from EPA's eGRID database for the CAMX region, are anticipated to decline by 33 percent between 2019 and 2030. Emissions associated with locally sourced water are captured in the building energy sector.

Table 49 Imported Water GHG Emissions Inventory and Legislative-Adjusted BAU Forecasts: St. Helena (MTCO₂e/year)

Source	2019	2030	Percent Change
Imported Water Usage (Gallons/year)	191	201	5%
Imported Water Emissions	285	203	-29%

Notes: BAU = business-as-usual; GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Source: Ascent Environmental 2022.

WASTEWATER

St. Helena's emissions from wastewater are anticipated to increase by proportionally with service population. These emissions would primarily come from central wastewater treatment plants. There are no known septic systems operating within St. Helena.

Table 50 Wastewater GHG Emissions Inventory and Legislative-Adjusted BAU Forecasts: St. Helena (MTCO₂e/year)

Source	2019	2030	Percent Change
Service population served by WWTP	11,856	12,475	5%
WWTP Process Emissions	2,270	2,389	5%

Notes: BAU = business-as-usual; GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Source: Ascent Environmental 2022.

4.5 YOUNTVILLE

Emissions Summary

Table 51 shows a summary of the 2019 emissions inventory and legislative-adjusted forecast for the Town of Yountville. Yountville's emissions are anticipated to decline by eight percent 2019 and 2030. As shown in Table 51, on-road transportation will remain the highest emitting sector in Yountville's inventory in the future although emissions are anticipated to decrease by 23 percent based on vehicle emissions standards and VMT forecasts for Yountville (MTC 2015).

Table 51 Emissions Inventory and Legislative-Adjusted BAU Emissions Forecasts: Yountville (MTCO₂e/year)

Sector	2019	2030	Percent Change	Difference
Agriculture	75	65	-14%	-11
Building Energy	8,532	8,449	-1%	-84
Imported Water	65	53	-18%	-12
Off-Road Equipment	1,328	1,501	13%	172
On-Road Transportation	12,404	9,526	-23%	-2,878
Solid Waste	2,601	3,153	21%	551
Wastewater	1,040	1,261	21%	221
Total	26,047	24,007	-8%	-2,039

Notes: BAU = business-as-usual; GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Source: Ascent Environmental 2022.

