CHAPTER 9

Climate Action Plan Element

Climate Action Plan Element

Climate change is one the most challenging issues the Town of Truckee will face in the 21st century. While climate change is a global issue, local communities have an important role in reducing greenhouse gas (GHG) emissions, which, in turn, provides a variety of other community benefits to residents and visitors. While state and federal agencies play a key role in setting policy and regulations regarding climate change, local governments and communities are responsible for supporting and implementing these policies to ensure GHG reductions are achieved locally.

The Town is being a leader in climate resilience through our General Plan commitments. Climate adaptation is a human, environmental and economic imperative and the Town is purposeful in accelerating climate change adaptation through implementation of intentional goals, policies and actions.

The Town has adopted aggressive GHG emissions targets that reflect the seriousness of the climate crisis. In November 2017, the Town Council adopted Resolution 2017-58, setting long-term goals for emissions reductions and renewable energy. By 2030, the Town's goal is to have 100 percent of electricity used townwide come from renewable sources, with the objective that all energy use (e.g., electricity, home heating fuels, transportation fuels) in the town come from renewable sources by 2050. Additionally, the resolution established a target to cut community-wide GHG emissions 80 percent from 2008 levels by 2040. The Town will work toward reducing emissions alongside communities around the world to reduce the impacts of climate change in the 21st century and beyond.

The Town recognizes that the natural environment in and surrounding Truckee supports the social and economic health of the community. Therefore, the Town believes that a concrete and meaningful action plan is necessary to safeguard the natural resources that are key to the town's identity and character. The purpose of the Climate Action Plan (CAP) Element of the General Plan is to formalize the Town's commitment to reducing GHG emissions and mitigating the worst impacts of climate change. As part of this work, the Town will rely on the innovation, compassion, diversity, and strong networks of its residents to make serious and systemic change. To attain sustainable progress for all, action will be required by every member of the community as well as by government agencies, businesses, faith groups, nonprofit organizations, and others.

The CAP Element sets forth ambitious goals, policies, and actions to help the Town reduce GHG emissions while complementing and supporting goals, policies, and actions from other General Plan elements (e.g., Mobility Element, Land Use Element). The CAP Element also serves as one half of the Town's complete CAP document, with the other half included in Appendix C, "Climate Action Plan Appendix." Appendix C provides information regarding the quantification of GHG reduction potential (i.e., GHG emissions reduced) as well as monitoring and implementation details for the CAP Element goals and policies. Combined, the CAP Element and CAP Appendix serve as a complete climate action plan document that allows the Town to assess its current GHG emissions, establish targets and goals for emissions reductions, and identify and implement specific measures that reduce GHG emissions to achieve the established state and Town targets. Additionally, the complete CAP document is structured to serve as a programmatic tiering document for analysis purposes as part of the California Environmental Quality Act (CEQA) (explained further in the California Environmental Quality Act section later in this element).

Guiding Principles

- Make Truckee more resilient to the impacts of climate change through leadership in environmental conservation, sustainability, and climate mitigation and adaptation and reduce the town's impact on the local and global environment.
- Reduce GHG emissions in all sectors, including building energy, transportation, solid waste, water, and wastewater, through comprehensive and robust planning and implementation.
- Limit dependence on fossil fuels through energy efficiency measures and increased availability and use of renewable energy sources.

Climate Change Background

This section presents an overview of the science of climate change and provides context on how the Town's efforts to reduce GHG emissions fit into the statewide regulatory framework regarding climate change. This section also summarizes of the work the Town has already done and continues to do to reduce emissions at the local level, helping to achieve the state's long-term GHG reduction targets and goals.

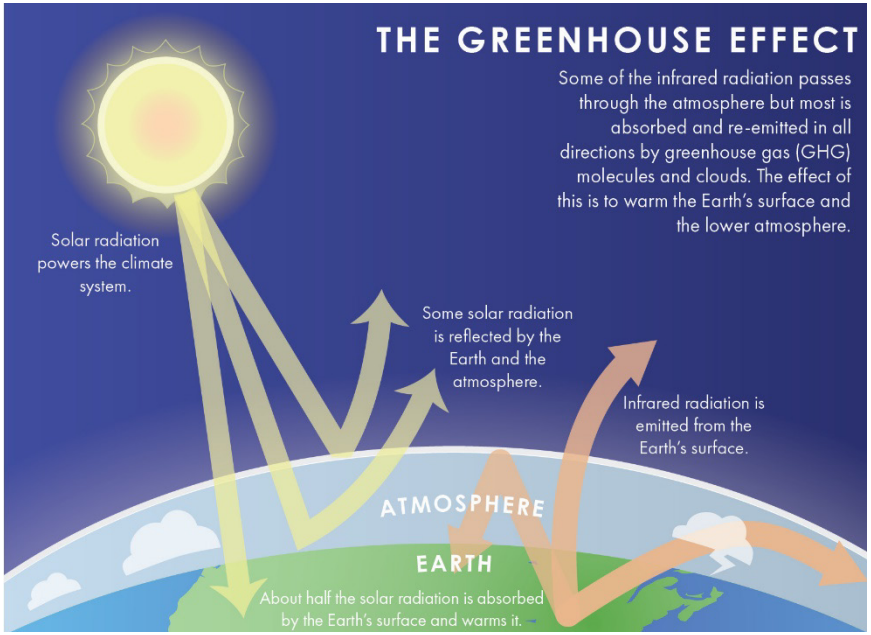
Climate Change Science Overview

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the atmosphere from space, a small portion of which is reflected back toward space. A larger portion of the radiation is absorbed by the earth's surface, which is then reemitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature.

The earth has a much lower temperature than the sun; therefore, the earth emits lower-frequency radiation. Most solar radiation passes through GHGs in the atmosphere; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect (Figure CAP-1), is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). There is scientific consensus that human-generated emissions of these GHGs in excess of natural ambient concentrations are responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change.

The Intergovernmental Panel on Climate Change (IPCC) is the scientific body charged with bringing together the work of thousands of climate scientists. In August 2021, IPCC released the Sixth Assessment Report, which assesses scientific, technical, and socioeconomic information concerning climate change. In the report, IPCC states that observed increases in GHG concentrations in the atmosphere since around the year 1750 are unequivocally caused by human activities. As a result, each of the last four decades has been successively warmer than any decade that preceded it since 1850. The Sixth Assessment Report highlights key new insights into the importance of global climate tipping points, thresholds in the global climate (e.g., global temperatures) that, when exceeded, can lead to large changes in the state of the climate system with one impact rapidly leading to a series of cascading events with vast repercussions.



Source: Ascent 2022.

Figure CAP-1: The Greenhouse Effect

The Sixth Assessment Report contains IPCC's strongest warnings to date on the causes and impacts of climate change. Importantly, the report notes that, in terms of solutions, "We need transformational change operating on processes and behaviors at all levels: individual, communities, business, institutions, and governments. We must redefine our way of life and consumption."[1]

In addition to mitigating GHG emissions to address climate change, reducing fossil fuel use in communities has many additional benefits, or "co-benefits." For example, retrofitting homes and businesses to be more efficient creates local jobs, reduces energy costs, improves air quality, and improves community members' health. In addition, money not spent on energy is more likely to be spent at local businesses, improving the local economy.[2]

California Climate Change Policy

The State of California has led the charge to address climate change and develop statewide GHG reduction policies. These policies have driven the completion of GHG inventories at the local level to help understand local communities' contributions to California's overall GHG emissions. Included below is a summary of the state's climate change–related policies that establish targets for GHG reductions as well as individual laws and regulations that help reduce emissions from specific sources and help reduce emissions at the local level.

State Emissions Reduction Targets

In 2006, California passed Assembly Bill (AB) 32, the Global Warming Solutions Act, which charged the California Air Resources Board (CARB) with implementing comprehensive regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions statewide. AB 32 required the state to reduce GHG emissions to 1990 levels by 2020. In 2016, the state established an even more aggressive target with Senate Bill (SB) 32, which requires statewide emissions to be reduced to 40 percent below 1990 levels by 2030.

Additionally, Executive Order (EO) S-3-05, signed in 2005, established a long-range target of reducing GHG emissions to 80 percent below 1990 levels by 2050. In 2018, Governor Jerry Brown signed EO S-55-18, setting a target for the state to achieve carbon neutrality by 2045. These executive orders are binding only on state agencies and have no force of law for local governments; however, the signing of these executive orders sends a clear signal to the California Legislature and local jurisdictions on the long-range goal for California.

[1] Intergovernmental Panel on Climate Change. 2021. *Climate Change Six Assessment: Summary Report for Policy Makers*. Available: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf Accessed September 5, 2021.

[2] American Council for an Energy Efficient Economy. 2012. *Energy Efficiency and Economic Opportunity*. Accessed 4/30/2018. Available at: http://aceee.org/blog/2012/09/energy-efficiency-and-economic-opport

California Environmental Quality Act

Another policy driver for climate action planning in California is SB 97, which established that GHG emissions and their impacts are appropriate subjects for analysis under CEQA. This law, passed in 2007, directed the Governor's Office of Planning and Research (OPR) to develop CEQA guidelines on the mitigation of GHG emissions for agencies, such that they may follow appropriate standards for calculating GHG emissions from projects, determine potential significance, and implement mitigation measures if necessary and feasible. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to cumulative GHG emissions may be determined to be less than significant if the project complies with the applicable measures in a "plan for the reduction of GHG emissions" (e.g., a CAP). Under these provisions, if a project can show consistency with applicable GHG reduction measures, the level of analysis for the project required under CEQA with respect to GHG emissions can be reduced considerably (i.e., a detailed analysis of project-level GHG emissions and potential climate change impacts is not needed).

The Truckee CAP is being developed to serve as a plan for the reduction of GHG emissions in accordance with CEQA Guidelines Section 15183.5. A tiering document front-loads the analysis needed for most new development projects in the town to decrease the time and money required for project-level environmental analyses. As part of implementation of the Town's CAP, a CAP Development Review Checklist is being prepared to support new development projects in complying with applicable GHG reduction measures in the CAP. The checklist, in conjunction with the CAP, provides a streamlined review process for proposed new development projects that are subject to discretionary review that triggers environmental review under CEQA (e.g., an initial study/negative declaration or a full environmental impact report is required). Project applicants may seek to streamline the review process by using the CAP to analyze GHG emissions impacts. Projects can achieve streamlining pursuant to the provisions of Section 15183.5 by including all applicable GHG reduction measures in this CAP in the project's design or as mitigation measures in the environmental document, thus demonstrating that the project is consistent with CAP goals and policies, and may determine that the project's incremental contribution to a cumulative effect is not cumulatively considerable.

Energy Efficiency and Renewable Energy Standards

Under SB 100, California's Renewables Portfolio Standard (RPS) requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources. SB 100 was passed in 2018, requiring electricity utilities to procure 60 percent of electricity from renewable sources by 2030 and 100 percent from renewable and zero-carbon sources by 2045. In 2015, SB 350 directed the California Energy Commission to establish statewide efficiency standards that will result in a doubling of energy efficiency savings by 2030.

Every three years, the state updates California's Building Energy Efficiency Standards (California Code of Regulations, Title 24, Part 6, hereafter referred to as "Title 24") to require new buildings to become even more energy efficient than under the previous iteration of the code. According to the California Energy Commission, the most recent 2019 Title 24 standards, which became effective in January 2020, will increase the efficiency of new construction by 25 percent for residential uses and 30 percent for nonresidential uses, compared to the previous 2016 Title 24 standards. In August 2021, the state adopted the 2022 Title 24 standards, which will go into effect on January 1, 2023, further increasing energy efficiency in new residential and nonresidential development.

Vehicle Fuel Efficiency Standards and Electric Vehicles

In 2012, CARB adopted the Advanced Clean Cars program, which established coordination between CARB, the US Environmental Protection Agency (EPA), and the National Highway Traffic Safety Administration (NHTSA) to set limits on the emissions of smog-causing pollutants and GHGs for vehicle model years 2015 through 2025. Currently, CARB is working to set regulations for Advanced Clean Cars Part II, which focuses on zero-emission vehicles (ZEVs). This regulation mandates that manufacturers increase the number of vehicles available for sale that do not emit any exhaust, including battery electric, hydrogen fuel cell, and plug-in hybrid electric vehicles. Even compared to 2025 vehicles under the

strictest criteria pollutant and GHG standards, ZEVs and plug-in hybrid electric vehicles emit significantly fewer pollutants and GHGs.

In January 2018, Governor Brown unveiled a goal to increase the number of EVs on California roads to 1.5 million by 2025 and 5 million by 2030.[3] At the time of the announcement, EVs represented approximately two percent of the total fleet statewide, or 350,000 vehicles, and about seven percent of all new vehicle sales in the state. Furthermore, in 2019, CARB began a study to identify strategies to significantly reduce transportation-related fossil fuel demand and emissions in the state, including transitioning to ZEVs, as part of the state's goal to achieve carbon neutrality by 2045.[4] Furthering this initiative, in September 2020, Governor Gavin Newsom signed EO N-79-20, setting the goal that by 2035, 100 percent of the new passenger cars and trucks sold in California will be ZEVs.[5]

Reducing Vehicle Miles Traveled

SB 375, signed by Governor Arnold Schwarzenegger in 2008, works to better align regional transportation planning efforts, regional GHG emissions reduction targets, and land use and housing allocations. SB 375 requires metropolitan planning organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy, showing prescribed land use allocations in each MPO's Regional Transportation Plan (RTP). CARB, in consultation with the MPOs, provided each affected region with reduction targets for vehicle miles traveled (VMT) and GHGs emitted by passenger cars and light trucks in their respective regions for 2020 and 2035. In 2013, Governor Brown signed SB 743 into law, which stated that criteria for determining the significance of transportation impacts must "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." To meet this requirement, the CEQA Guidelines identify VMT as the preferred CEQA transportation metric, rather than auto delay, level of service, or other similar measures of vehicular capacity or traffic congestion.

Organic Waste Reductions

In September 2016, SB 1383 was adopted, setting methane emissions reduction targets for California in a statewide effort to reduce emissions of short-lived climate pollutants. The law sets the following targets for reducing methane emissions associated with organic waste:

- reduce organic waste disposal 50 percent by 2020 and 75 percent by 2025; and
- recover at least 20 percent of currently disposed surplus food to feed people in need by 2025.

SB 1383 also requires local jurisdictions to conduct education and outreach on organics disposal to all residents, businesses (including those that generate edible food that can be donated), waste haulers, solid waste facilities, and local food banks and other food recovery organizations.

Federal Climate Change–Related Regulation

In addition to the state legislation discussed above, several federal policies also help reduce GHG emissions from activities in Truckee. In 2016, EPA and NHTSA adopted fuel efficiency standards for medium- and heavy-duty vehicles that focus on vehicle and engine performance standards for model years 2018–2027 for certain tractor-trailers and model years 2021–2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. EPA also established standards for the phasing in of EPA diesel engine tiers for off-road compression-ignition equipment (Off-Road Compression-Ignition Engine Standards [40 Code of Federal Regulations Part 89]). The regulation serves to reduce emissions by integrating engine and fuel control systems and requiring equipment manufacturers to produce engines with advanced emissions control technologies.

[3] Rogers, P. 2018 (January). Brown Calls for 5 Million Electric Vehicles by 2030, $2.5 Billion for Charging Stations. *Mercury News*.

[4] California Environmental Protection Agency. 2019 (December 18). *Carbon Neutrality Studies: Study 1 Draft Scope of Work*.

[5] Office of Governor Gavin Newsom. 2020. *Governor Newsom Announces California Will Phase Out Gasoline-Powered Cars & Drastically Reduce Demand for Fossil Fuel in California's Fight Against Climate Change.*

State law aims to reduce methane emissions from food waste.

Town of Truckee Climate Change Initiatives

As mentioned above, in November 2017, the Town Council adopted Resolution 2017-58, setting long-term goals for emissions reduction and renewable energy. Prior to the development of this CAP, the Town has taken considerable steps to reduce GHG emissions locally. The sections below briefly discuss these efforts.

Energy Conservation

Between 2010 and 2012, the Town implemented energy efficiency upgrades at municipal facilities, upgrading light fixtures, adding daylight controls for lighting systems, installing pipe insulation on hot water piping, implementing network thermostats for control of water-source heat pumps, and implementing occupancy-based lighting fixtures. In 2019, the Town completed a follow-up energy efficiency audit of all municipal facilities. Between 2019 and 2021, the Town implemented a suite of energy efficiency upgrades, including the conversion of all lighting to efficient light-emitting diodes (LEDs). The Town has also authorized participation in four Property Assessed Clean Energy programs that help to assess and finance energy efficiency and renewable energy upgrades for residential and non-residential buildings in Truckee.

The Town installed solar-powered pedestrian crossing lights on Brockway Road in 2018 and has since installed solar lighting in the Envision DPR project and on the Stockrest Springs roundabout. Solar lighting has also been installed on the Soaring Way/Joerger Drive/Raley's roundabout, which was built as a requirement of the Soaring Ranch development. The Town has initiated conversations with the Truckee Donner Public Utility District (TDPUD) on increasing renewable sources in the utility's generation portfolio. The Town is also collaborating with TDPUD to expand their home energy retrofit incentives.

Transportation

In 2015, the Town updated the Truckee Trails and Bikeways Master Plan (originally adopted in 2002), which includes goals and policies to guide expansions to and maintenance of pedestrian and bike infrastructure and to support facilities aimed at increasing bicycle and pedestrian trips in the community.

In 2017, the Town developed a Long-Range Transit Plan that outlines plans for establishing new neighborhood routes and connections, providing extended service hours, and expanding dial-a-ride services. Since that time, the Town has also transitioned to a "fare-free" system for trips on the Truckee local routes and on the State Route (SR) 89 and SR 267 routes operated in partnership with Placer County. Providing "fare-free" service is a critical step in removing social and economic barriers to transit and represents significant progress in increasing the overall attractiveness and viability of transit for all demographics.

As part of a transportation demand management (TDM) program, the Town has implemented 9/80 work schedules for its staff to reduce employee trips to Town Hall, as well as an incentive program for employees using alternative transportation (e.g., bikes). The Town encourages the use of virtual meetings for both staff and external participants and implemented a work from home pilot program, which allows employees to work from home every Friday to reduce VMT generated by daily Town business. Broader and more comprehensive TDM programs are a proven means to

reduce single-occupant vehicle trips and associated VMT in a cost-effective and environmentally responsible manner.

In 2012, the Town Council approved the purchase of a John Deere 644K hybrid loader for the Truckee Department of Public Works snow removal operations. The hybrid loader uses a smaller diesel engine to power a generator to an electric motor that drives the loader. In tests of this new technology, the Town realized an average 18 percent decrease in diesel fuel consumption with the same amount of production as a conventional non-hybrid loader. Following the success of the first hybrid loader purchase, all subsequent loader replacements have been hybrid loaders. Currently, eight of the ten Department of Public Works road and snow loaders are hybrid loaders.

The Town has purchased hybrid loaders to reduce GHG emissions.

In 2016, the Town purchased a zero-emissions electric motorcycle and electric utility vehicle for the Police Department. In fiscal year 2020–2021, the Town purchased one electric vehicle (EV) for the municipal fleet and converted all 61 diesel vehicles in the fleet from fossil fuel diesel to renewable diesel, which is derived from plant-based feedstock and decreases carbon emissions by approximately 57 percent compared to fossil fuel diesel. In fiscal year 2021–2022, the Town installed three EV charging stations at Town Hall for fleet, employee, and public use. In 2021, the Town Council adopted the Innovate Gateway Strategy, a California Department of Transportation (Caltrans) grant-funded study to identify opportunities for new housing options, economic development strategies, sustainable mobility improvements, and quality of life enhancements to reduce VMT on Interstate 80.

Waste Reduction and Recycling

In 2018, the Town updated its waste and recycling services to improve diversion rates under a new franchise agreement with its waste hauler. Truckee residents moved from using colored plastic bags to wheeled carts for their recyclables and yard waste, estimated to save up to three million plastic bags in 10 years. The Town has developed a sustainability-oriented website, Keep Truckee Green, which provides residents with a recycling guide and other information about solid waste services and waste-related GHG emissions reduction. Through the site, the Solid Waste and Recycling Division sends out monthly newsletters with tips and event announcements. The Town has also begun outreach efforts and introduced the Feed Truckee food recovery program to reduce organic waste and increase food recovery as part of reaching the targets established in SB 1383.

Greenhouse Gas Inventory and Forecast Summary

In 2018, the Town completed the Community-Wide and Municipal Operations 2016 GHG Emissions Re-Inventory. The inventory includes a comparison of the Town's 2008 GHG inventory with an updated GHG emissions inventory for the year 2016. Truckee's baseline GHG emissions inventories use 2008 for the base year; 2008 was selected because it is one of the earliest years for which relatively comprehensive data is available, and its usage is consistent with the 2008 baseline used in the TDPUD greenhouse gas emissions inventory.

GHG emissions in the Town's inventory are calculated using a metric known as a carbon dioxide equivalent (CO_2e). Using CO_2e enables a comparison of the different potencies of the six internationally recognized greenhouse gases (i.e., CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6). For example, CH_4 has 28 times the potency of CO_2 in terms of warming potential; therefore, 28 metric tons (MT) of CO_2e is equivalent to 1 MT of CH_4 (or 28 MT of CO_2).

Below is a summary comparison of the Town's 2008 and 2016 GHG emissions inventories. All estimates for the 2008 and 2016 GHG emissions inventories were completed following the guidelines provided in ICLEI – Local Governments for Sustainability's (ICLEI's) *Local Government Operations Protocol* and *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions* (Community Protocol). More information on the boundaries used to determine which emissions were included and the protocols used in the development of the inventories can be found in Appendix C.

Community-Wide GHG Emissions Summary

Community-wide GHG emissions in the town are generated through a variety of activities by residents, businesses, and visitors. A description of emissions associated with each category (organized by total contribution to community-wide GHG emissions, from largest to smallest) is included below.

- **Residential and Nonresidential Building Energy:** Electricity and natural gas use from all residential and nonresidential buildings.
- **Community Transportation:** Fuel combustion in on-road vehicles, which include passenger vehicles (i.e., cars and light-duty trucks) and medium- and heavy-duty trucks. Fuel consumption is generally tied to the fuel efficiency and fuel source of vehicles, along with the number of miles driven; and fuel combustion is associated with off-road vehicles, heavy equipment, and machinery operating off paved roads.
- **Community Solid Waste:** GHGs released as waste in landfills decays over time.
- **Potable Water Services:** Consumption of water in buildings and landscaped areas, resulting in electricity used in the conveyance, treatment, and distribution of water from its source to the end user.
- **Wastewater Treatment:** Generation and treatment of wastewater.

In 2008, Truckee's residents and businesses emitted an estimated 230,349 $MTCO_2e$. In 2016, the community's emissions decreased by approximately 33 percent to 153,268 $MTCO_2e$, primarily because TDPUD increased the percentage of renewables in its portfolio from 4.5 percent in 2008 to 60 percent in 2016. This percentage greatly exceeds the RPS targets under SB 100, which at the time required utilities' portfolios to have 25 percent renewables in 2016 (the current RPS required 33 percent renewables in 2020 and now requires 60 percent renewables in 2030). This was the main driver behind reduced emissions in 2016. Figure CAP-2 summarizes the community-wide GHG emissions included in the Town's inventory. The largest contributor to community emissions in the inventory is residential energy use, followed by community transportation, which includes on-road passenger, freight, and public transit vehicles, off-road vehicles, and mobile equipment.

In addition to the emissions shown in Figure CAP-2, several information items were recorded separately from the community total to avoid overlap with other reported emissions or were excluded from total community emissions per Community Protocol guidance. Truckee's community-wide inventory information items include electric on-road vehicles, transit vehicles, and the collection and transportation of community-generated solid waste because emissions from these activities are counted elsewhere in the inventory. Also reported as an information item is the biogenic CO_2 produced from wood burned for home heating and from combustion of wastewater treatment digester gas. Biogenic CO_2 is not included in GHG emissions inventories because the same CO_2 would be produced if the wood or biogas (or other organic material) were left to decompose naturally.

Municipal Operations GHG Emissions Summary

GHG emissions are also generated specifically from municipal operations. Although discussed separately here, all emissions generated from municipal operations are considered a subset of community-wide emissions. Therefore, the community-wide emissions discussed above serve as the estimate for the town's total GHG emissions. A description of emissions associated with each category of municipal operations is listed below (organized by total contribution to municipal operations GHG emissions, from largest to smallest) is included below.

- **Buildings and Facilities:** Electricity and natural gas use from all Town buildings and facilities.
- **Vehicle Fleet:** Fuel combustion in off-road and on-road vehicles associated with the Town's vehicle fleet, which includes passenger vehicles (i.e., cars and light-duty trucks) and medium-duty trucks.

- **Government-Generated Solid Waste:** GHGs released as waste generated by Town operations in landfills decaying over time.
- **Employee Commute:** Fuel combustion in on-road vehicles associated with employee commutes for Town staff.

In 2008, the Town's municipal operations generated approximately 2,519 $MTCO_2e$. In 2016, these emissions decreased 12 percent to 2,208 $MTCO_2e$. As shown in Figure CAP-3, the largest sources of emissions in the 2008 and 2016 municipal operations inventories are the Town's vehicle fleet and buildings and facilities.

In addition to the emissions included in Figure CAP-3, the following informational items were recorded: biogenic CO_2 emissions resulting from biodiesel combustion by the Department of Public Works, and emissions from community-generated solid waste at the train depot and in Downtown trash cans (this solid waste is collected by the Town but generated by the community rather than through municipal operations).

Importantly, the 2016 inventories do not include GHG reductions achieved through Town vehicle fleet improvements and other efforts described above. These improvements occurred after the 2016 inventory was prepared and will be reflected in future GHG inventories.

Emissions Forecast

To understand what annual GHG emissions will look like in the future, two emissions growth scenarios (i.e., forecasts) have been modeled. The first forecast scenario is referred to as the business-as-usual (BAU) forecast and assumes that no state or federal legislative actions, as discussed above, are implemented to reduce GHG emissions. In addition to legislative actions, the BAU forecast does not account for any GHG emissions reductions associated with the implementation of the CAP. The BAU forecast is based on the population, employment, housing, nonresidential development, and VMT projections of the General Plan (see Appendix B). The second forecast scenario, referred to as a legislative-adjusted BAU (ABAU) forecast, accounts for the effects of existing state and federal legislation and regulations that are anticipated to impact future community-wide emissions in Truckee. These scenarios have been calculated out to the target years of 2030 and 2040 as well as to the state's long-term target years of 2045 and 2050.

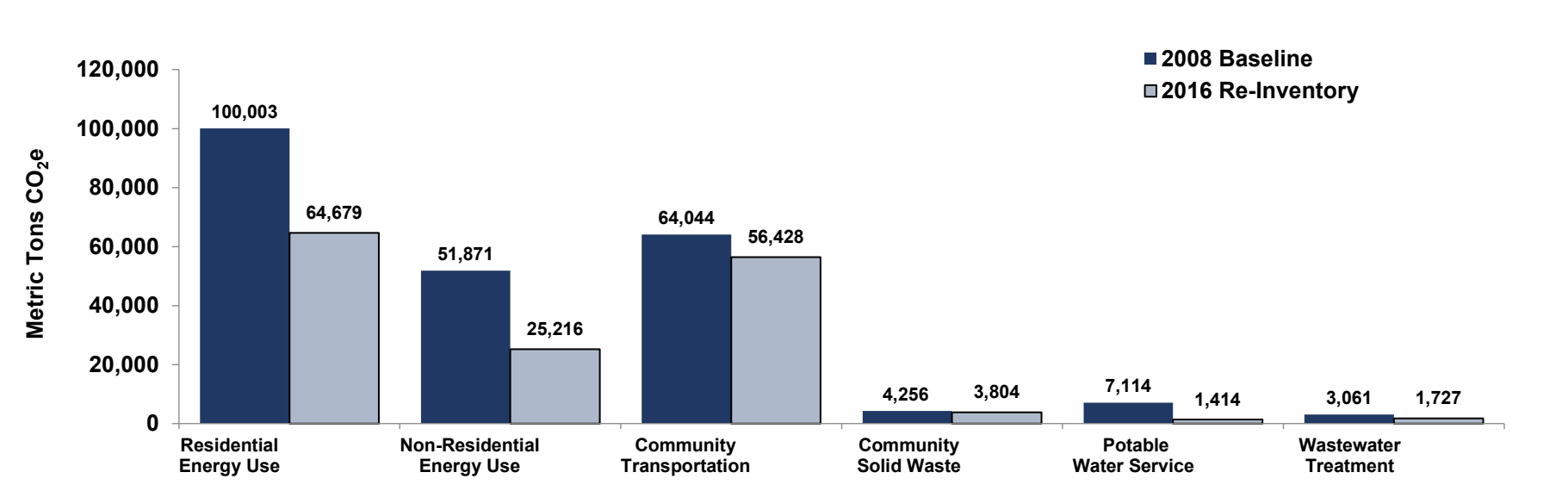
The emissions forecasts are a snapshot of how annual emissions levels are expected to change and allow the Town to assess the effectiveness of various GHG reduction strategies over time. The BAU and ABAU forecasts allow the Town to understand what percentage of the community's future emissions reductions will be achieved by legislative actions and what percentage will need to be reduced through the CAP Element goals and policies to meet the Town's GHG reduction targets.

CAP Reduction Targets

The Town has adopted a target to reduce community-wide emissions to 80 percent below 2008 emissions levels by 2040 and has committed to engaging in a transparent and robust community engagement process to help achieve its climate change–related goals. Additionally, as discussed above, SB 32 requires that statewide emissions be reduced to 40 percent below 1990 levels by 2030, and EO S-3-05 set a goal to reduce statewide emissions to 80 percent below 1990 levels by 2050.

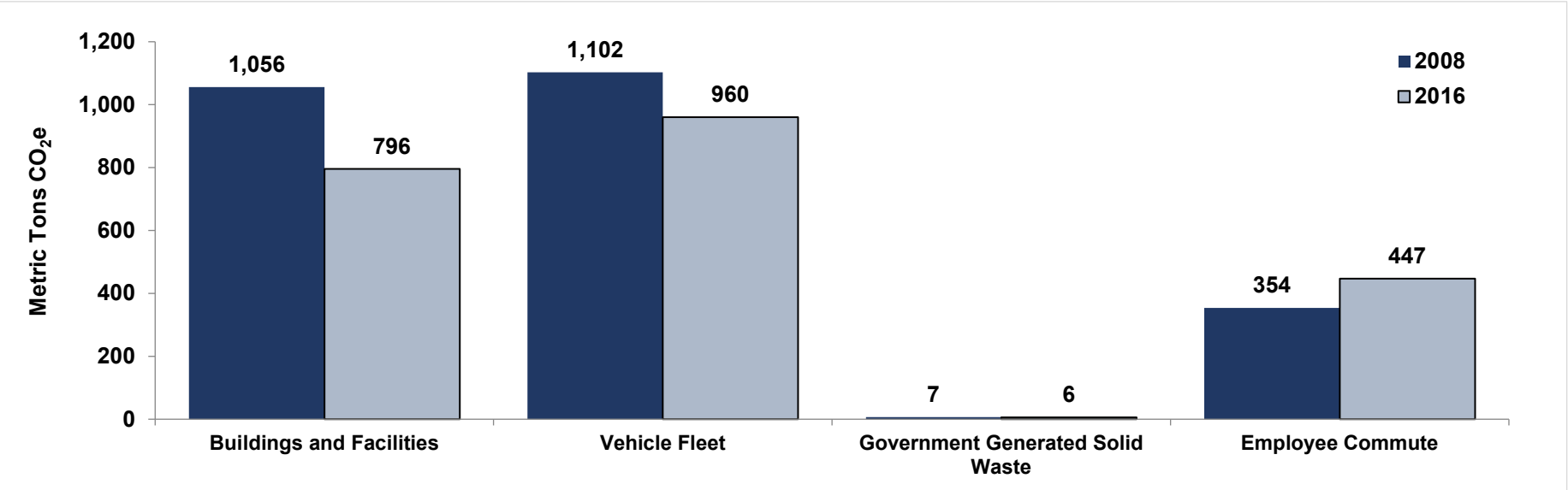
To assess the level of reductions needed to achieve the Town's 2030 and 2040 targets, data are needed regarding Truckee's GHG emissions levels for the years 2008 and 1990. Community-wide inventory data is available for the year 2008, as discussed above. However, the necessary data to estimate the town's 1990 emissions levels are not available. Therefore, proportional targets for the CAP were developed that express the level of GHG emissions reductions that would be needed locally between 2008 and future target years to demonstrate consistency with statewide targets and goals.

To determine the equivalent reduction target at the local level compared to the state's 2030 target, CARB's 2017 Scoping Plan recommends that local governments evaluate and adopt robust and quantitative locally appropriate goals that align with the statewide per capita targets (i.e., 6 $MTCO_2e$ per capita in 2030 and 2 $MTCO_2e$ in 2050) and the state's sustainable development objectives to develop plans to achieve local goals. The 2017 Scoping Plan clarifies that an evidence-based local per capita goal, or some other metric that the local jurisdiction deems appropriate (e.g., mass emission, per service population), may be used.



Source: Town of Truckee 2018.

Figure CAP-2: 2008 and 2016 Community-Wide GHG Emissions ($MTCO_2e$)



Source: Town of Truckee 2018.

Figure CAP-3: 2008 and 2016 Municipal Operations GHG Emissions ($MTCO_2e$)

Based on CARB's recommendations, the Town considered a 2030 reduction target using a mass emissions approach combined with local data from the Town's 2008 baseline inventory. Equivalent targets were calculated relative to statewide emissions obtained from CARB's California Greenhouse Gas Emissions for 2000 to 2018 report.[6] Specifically, the state's 2008 GHG emissions inventory was compared to the state's emissions reduction targets relative to its 1990 inventory, from which specific percentage reductions relative to 2008 were developed. As recommended by CARB, this analysis included adjustments to the state's targets to exclude GHG emissions sectors that are being regulated at the state level or sectors not located in the town (i.e., not relevant or applicable to the town), because local jurisdictions are not responsible for helping to reduce emissions from these sectors to reach the statewide targets. Specifically, the Town's analysis excludes emissions from the Cap-and-Trade program and emissions from the agricultural sector accounted for in the statewide inventory.

This approach resulted in the following local reduction targets, which are consistent with state targets and goals:

- 31 percent below 2008 levels by 2030
- 47 percent below 2008 levels by 2040
- 62 percent below 2008 levels by 2050

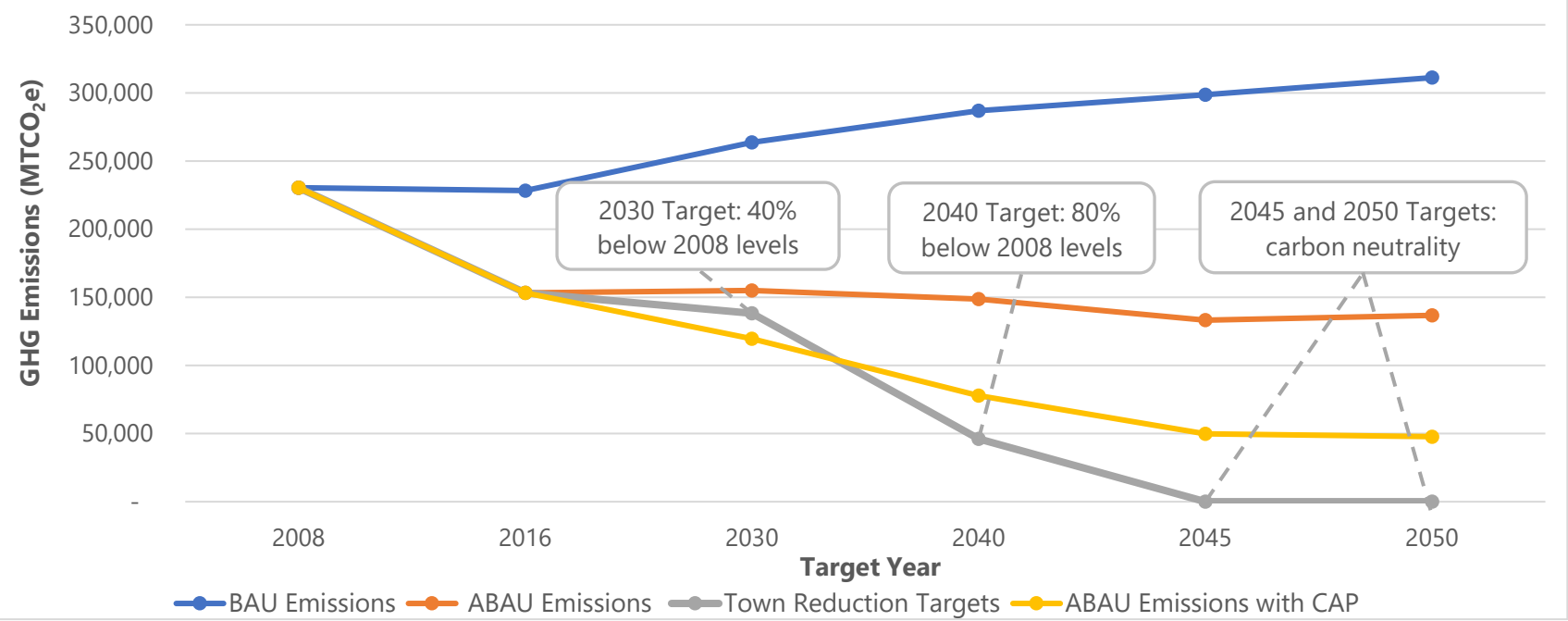
However, to achieve future, more ambitious GHG emissions reductions aligned with state targets and goals, including EO B-55-18 (i.e., achieve carbon neutrality by 2045), as well as the Town's emissions reduction target adopted in Resolution 2017-58, the Town has established the following emissions reduction targets for the CAP:

- 40 percent below 2008 levels by 2030
- 80 percent below 2008 levels by 2040
- 100 percent below 2008 levels by 2045

These targets are more ambitious and would result in greater GHG emissions reductions sooner than the locally adjusted state targets listed above. As shown in Figure CAP-4 and Table CAP-1, the Town's 2030 target to reduce emissions to 40 percent below 2008 levels requires GHG emissions to be reduced to 138,209 $MTCO_2e$ per year. The 2030 target, which is equivalent to the state's target established in SB 32, was set based on the trajectory necessary to meet the Town's 2040 target. The Town's 2040 target, established in Resolution 2017-58, to reduce emissions to 80 percent below 2008 levels requires GHG emissions to be reduced to 46,070 $MTCO_2e$ per year. Table CAP-1 also includes the total annual reductions that would be needed to meet the 2045 and 2050 targets and the total GHG reductions achieved through the goals, policies, and actions established in this CAP Element.

As discussed above, through EO B-55-18, the state has set a target to achieve carbon neutrality by 2045. While this executive order is not binding for local jurisdictions, the target can establish a more long-term goal for emissions reductions for the Town. This CAP Element is primarily focused on achieving the 2030 target and aims to make substantial progress in achieving the longer-term targets in 2040, 2045, and 2050. Achievement of the longer-term targets will require monitoring, tracking, and adjusting locally enacted GHG reduction measures, along with advances in new technologies and markets, as well as updates to CARB's Scoping Plan and future state and federal actions. If fully implemented, this Climate Action Plan is expected to enable the Town to reach its 2030 emissions reduction target. It does not enable the Town to reach its 2040 and 2045 emissions targets. However, the Town commits to act with ambition and urgency to reach those targets. To that end, it will update this Climate Action Plan at least every four years in order to take account of continuing development in technologies, policies and financing to reach the 2040 and 2045 emissions reduction targets.

[6] California Air Resources Board. 2020. *California Greenhouse Gas Emissions for 2000 to 2018: Trends of Emissions and Other Indicators.* Available: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2018/ghg_inventory_trends_00-18.pdf. Accessed July 6, 2021.



Source: Ascent 2022.

Figure CAP-4: Truckee CAP Emissions Inventory, Forecasts, and GHG Reduction Targets

Table CAP-1: Truckee CAP Emissions Inventory, Forecasts, and GHG Reduction Targets

GHG Emissions	Target Year					
	2008 (Baseline)	2016	2030	2040	2045	2050
Emissions Inventories and BAU Forecast ($MTCO_2e$)	230,349	228,334	263,715	286,903	298,660	311,210
Emissions Inventories and ABAU Forecast ($MTCO_2e$)	230,349	153,268	155,038	148,640	133,222	136,729
Target Percent Reduction below 2008 Levels	NA	NA	40%	80%	100%	100%
Target Mass Emissions Level ($MTCO_2e$)	NA	NA	138,209	46,070	0	0
Reductions from ABAU Forecast Needed to Achieve Target ($MTCO_2e$)	NA	NA	16,829	102,570	133,222	136,729
Total GHG Reductions from CAP Element ($MTCO_2e$)	NA	NA	35,359	70,817	83,384	88,990
Remaining Gap to Achieve Target[1] ($MTCO_2e$)	NA	NA	(18,529)	31,754	49,838	47,739

Notes: ABAU = legislative-adjusted business-as-usual; BAU = business-as-usual; CAP = Climate Action Plan; $MTCO_2e$ = metric tons of carbon dioxide equivalent; NA = not applicable.

[1] Parentheses indicate target has been achieved with a surplus of emissions reductions.

Source: Ascent 2022.

Goals, Policies, and Actions

This section includes the goals, policies, and actions that have been developed to reduce the Town's GHG emissions, consistent with the Town's and the state's emissions reduction targets and goals. Some of the goals in this section are supported by goals and policies from other elements of the Truckee General Plan (e.g., the Mobility Element). These policies and actions are copied into the CAP Element from their respective source elements to show how CAP goals are met and to ensure consistency throughout the General Plan.

As shown in Table CAP-2 and Figure CAP-5, the Town would need to reduce annual emissions by 16,829 $MTCO_2e$ by 2030 to achieve the 2030 emissions target of 138,209 $MTCO_2e$. The combined CAP Element goals, if fully implemented, would reduce emissions by approximately 35,359 $MTCO_2e$ in 2030, allowing the Town to achieve and exceed the 2030 target. By 2040, the Town would need to achieve emissions reductions of 102,570 $MTCO_2e$ to meet the 2040 target of reducing emissions to 46,070 $MTCO_2e$. However, the CAP Element goals would only reduce emissions by 70,817 $MTCO_2e$ in 2040, and the Town would still need to achieve reductions of 31,754 $MTCO_2e$ to meet its 2040 target. The CAP Element aligns with the state in proposing measures to meet the 2030 target and achieve significant progress toward achieving the Town's 2040 and long-term targets. To the extent climate change science, policy, technology, and other factors continue to advance, the Town will be able to apply new reductions toward reducing emissions on a trajectory consistent with the 2040 target and the state's 2045 carbon neutrality goal in future CAP Element updates.

Each CAP Element goal includes a corresponding set of policies and actions to help achieve the larger goal, providing details on how the Town and the Truckee community can achieve meaningful and effective reductions from each of the town's four main activity sectors. While the goals, policies, and actions establish a framework for reducing emissions in line with the Town's and the state's emissions reduction objectives, it is important to recognize that effective implementation and consistent monitoring of GHG reduction progress will be needed to achieve the Town's targets.

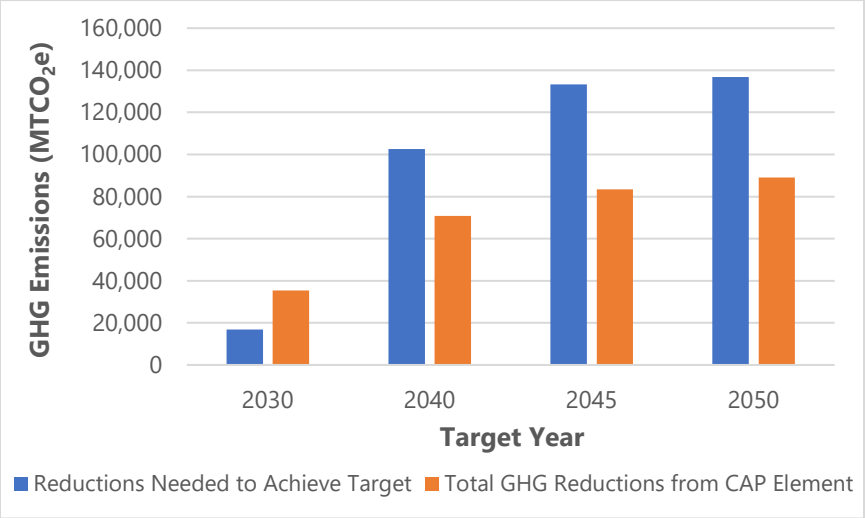
Table CAP-2: CAP Goals – GHG Reduction Summary

GHG Emissions ($MTCO_2e$)	Target Year			
	2030	2040	2045	2050
ABAU Forecast	155,038	148,640	133,222	136,729
Target Mass Emissions Level	138,209	46,070	0	0
Reductions Needed to Achieve Target	16,829	102,570	133,222	136,729
Total GHG Reductions from CAP Element	35,359	70,817	83,384	88,990
Remaining Gap to Achieve Target[1]	(18,529)	31,754	49,838	47,739

Notes: ABAU = legislative-adjusted business-as-usual; CAP = Climate Action Plan; GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent.

[1] Parentheses indicate target has been achieved with a surplus of emissions reductions.

Source: Ascent 2022.



Source: Ascent 2022.

Figure CAP-5: CAP Goals – GHG Reduction and Target Achievement

The CAP Element includes a total of 11 goals, with the first nine goals focused on reducing GHG emissions from three major activity sectors that generate GHG emissions: building energy, transportation and land use, and solid waste.

Provided below is a brief description of how the suite of CAP Element goals for each activity sector help to reduce GHG emissions associated with existing activities and with future development in Truckee. The discussion of goals associated with each activity sector also includes a table with the anticipated GHG reduction potential for each goal for target years.

Transportation and Land Use Goals

Goals CAP-1 through CAP-5 focus on reducing emissions from transportation-related activity for existing residents and businesses as well as vehicle trips from future population and economic growth in the community. These goals focus on reducing the over-reliance on personal vehicles as the primary mode of transportation in Truckee while supporting programs and physical improvements in the town that support more sustainable transportation options including transit, bicycles, walking, and opportunities to avoid vehicle trips altogether. Additional programs and strategies should be focused on increasing vehicle occupancy, thereby increasing roadway capacity without physical improvement. These CAP Element goals align closely with other goals included in the General Plan that focus on creating more sustainable land use patterns (i.e., Land Use Element), promoting and accommodating more sustainable modes of transportation, and reducing personal vehicle use (i.e., Mobility Element). The category also includes opportunities to promote carbon sequestration through open space conservation and prioritizing infill development for new growth. Table CAP-3 includes the anticipated GHG emissions reductions for transportation and land use goals for each target year.

Table CAP-3: Transportation and Land Use CAP Goals

CAP Goal or Policy	GHG Reductions ($MTCO_2e$)			
	2030	2040	2045	2050
GOAL CAP-1: Reduction in Vehicle Miles Traveled	1,087	1,372	1,678	2,064
GOAL CAP-2: Bicycle and Pedestrian Trips	869	1,472	1,746	2,050
GOAL CAP-3: Transit System	800	1,564	1,530	1,569
GOAL CAP-4: Low- and Zero-Emissions Vehicles	317	668	1,018	1,325
GOAL CAP-5: Land Use Patterns	240	219	209	209
GOAL CAP-6: Open Space and Carbon Sequestration	2,775	5,550	8,325	11,100
Total GHG Emissions Reductions	**6,088**	**10,845**	**14,505**	**18,317**

Notes: Totals may not sum exactly due to independent rounding. CAP = Climate Action Plan; GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent.

Source: Ascent 2022.

Building Energy Goals

Goals CAP-7 and CAP-8 focus on reducing GHG emissions associated with energy use in existing buildings and new development in the town. Since existing buildings are where most emissions are generated currently, there is a strong emphasis on increasing energy efficiency in existing buildings, building electrification, and the use of renewable natural gas in existing development. However, Goal CAP-8 ensures new development in the town reduces energy use and GHG emissions wherever possible. Table CAP-4 includes the anticipated GHG emissions reductions for building energy use goals for each target year.

Table CAP-4: Building Energy CAP Goals

CAP Goal	GHG Reductions ($MTCO_2e$)			
	2030	2040	2045	2050
GOAL CAP-7a Energy Efficiency in Existing Development (CAP-7.A Building Energy Retrofit Program)	15,864	36,997	29,790	29,790
GOAL CAP-7b Energy Efficiency in Existing Development (CAP-7.B Renewable Natural Gas Supply)	11,763	14,875	29,471	29,471
GOAL CAP-7c Energy Efficiency in Existing Development (CAP-7.G Water Conservation Education)	12	7	0	0
GOAL CAP-8 Energy Efficiency in New Development	465	5,740	6,649	8,416
Total GHG Emissions Reductions	**28,104**	**57,618**	**65,910**	**67,677**

Notes: Totals may not sum exactly due to independent rounding. CAP = Climate Action Plan; GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent.

Source: Ascent 2022.

Solid Waste Goal

Goal CAP-9 focuses on reducing GHG emissions associated with organic waste by diverting organic waste from landfills toward more productive uses, reducing food waste, and increasing food recovery efforts. Table CAP-5 includes the anticipated GHG emissions reductions for Goal CAP-9 for each target year.

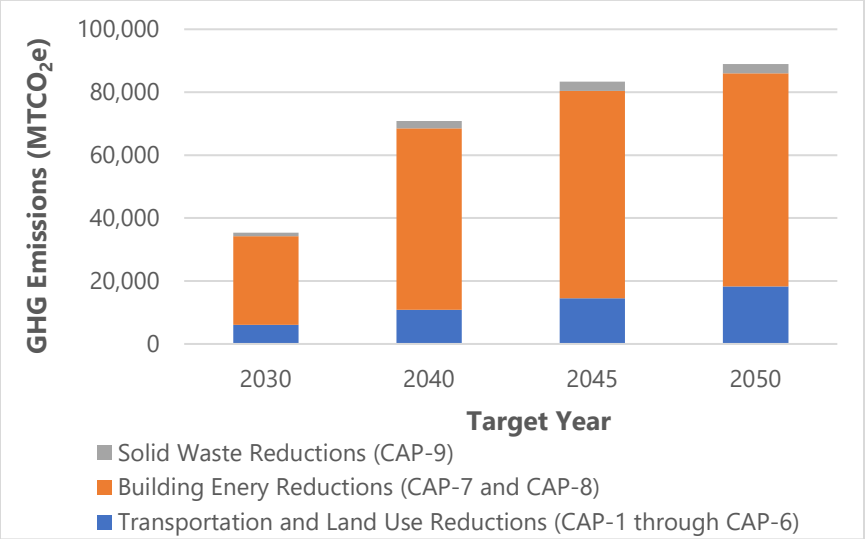
Table CAP-5: Solid Waste CAP Goals

CAP Goal or Policy	GHG Reductions ($MTCO_2e$)			
	2030	2040	2045	2050
GOAL CAP-9 Organic Waste	1,166	2,353	2,969	2,996

Notes: CAP = Climate Action Plan; GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent.

Source: Ascent 2022.

Figure CAP-6 illustrates the GHG emissions reductions that would be achieved by the CAP in each sector for the target years.



Source: Ascent 2022.

Figure CAP-6: GHG Reductions by Emissions Sector and Target Year

Additional CAP Element Goals

Goal CAP-10 focuses on reducing GHG emissions through strategies to reduce overall consumption of resources in the town and promote more sustainable consumption patterns, including reuse and recycling as well as promoting the "sharing" economy. Because Goal CAP-10 would reduce emissions from sources outside the town limits that are not included in the scope of the Town's emissions inventory, the emissions reductions from Goal CAP-10 are not quantified or counted toward the Town's GHG reduction goals.

Goal CAP-11 focuses on preliminary steps to be taken to begin implementing the CAP Element, with more detail on implementation provided in Appendix C.

Goal CAP-1: Reduction in Vehicle Miles Traveled

Promote transportation innovation and transportation demand management programs to reduce vehicle miles traveled.

Policies

The following policies from the Mobility Element address Goal CAP-1 and have been copied directly from the Mobility Element to the CAP Element to ensure consistency throughout the General Plan.

M-1.2
Transportation Demand Management Measures

Support community partners, including existing and future businesses and public and nonprofit employers, in expanding the use of transportation demand management (TDM) measures including discounts, rewards, and parking cash-out programs that divert automobile commute trips to transit, walking, bicycling, or digital/remote working.

M-1.3
Vehicle Miles Traveled Standards

Implement the adopted vehicle miles traveled (VMT) standards and thresholds and evaluate new development projects using the adopted VMT analysis methodologies, thresholds of significance, and mitigation strategies.

M-1.4
Transportation Innovation

Promote transportation innovation with a focus on emerging technology and Mobility as a Service and encourage transportation network companies to reduce greenhouse gases through improved technology, curb space management, and micromobility alternatives.

Source: Truckee North Tahoe Transportation Management Association.

TART connect provides pickup in North Tahoe region.

Actions

The following actions from the Mobility Element address Goal CAP-1 and have been copied directly from the Mobility Element to the CAP Element to ensure consistency throughout the General Plan.

M-1.A

Transportation Demand Management Program

Develop an employee threshold (e.g., more than 50 employees) above which transportation demand management measures would be required for new nonresidential development projects and develop a context appropriate "toolbox" of TDM measures to be used as project requirements for such projects. Conduct preliminary outreach with large employers to identify the most appropriate and effective TDM measures for Truckee businesses and their employees informed by work schedules and place of residence. TDM measures could include, but are not limited to:

- parking incentives such as discounts for carpools, rewards, and cash-out or time-off incentive programs;
- unbundled parking strategies or shared parking agreements;
- long-term bicycle parking, on-site lockers, and showers;
- flexible, staggered, and/or coordinated work schedules, communal work space and telework programs;
- subsidized transit passes, a vanpool program;
- ridesharing/ride-matching services, guaranteed ride home program; or
- designated employee transportation coordinator.

Work with existing and future businesses, the Tahoe Truckee Unified School District, and major public and nonprofit employers (e.g., local agencies) to expand the use of TDM measures that divert automobile commute trips to transit, walking, bicycling, or digital/remote working and incentivize carpool and multi-passenger trips for regional commutes.

Responsibility: Public Works Department

Time Frame: Midterm

M-1.B

VMT Mitigation

Establish a list of appropriate and feasible mitigation measures for projects that do not achieve adopted VMT targets. Review mitigation measures every five years to ensure any and all feasible mitigation measures are included to achieve and maintain adopted VMT targets. VMT mitigation measures might include, but are not limited to:

- changing land uses to increase internalization of trips and to shorten trip lengths of trips generated by other nearby land uses;
- improving bicycle and pedestrian network connections and providing support facilities;
- contributing to regional transit enhancements, particularly ongoing operations funding;
- managing parking inventory through participation in a regional or district-wide parking pricing program;
- reducing parking supply rates, or unbundling parking spaces from residential units;
- providing employee shuttle or ridesharing service;
- implementing a car-sharing program; and
- providing funding toward VMT-reducing land uses and regionally significant programs, projects, and/or services.

Develop a program to monitor effectiveness of VMT mitigation measures in projects in which they are required and adjust mitigation through adaptive management plans, if needed.

Responsibility: Public Works Department

Time Frame: Short term

M-1.C

Rideshare Programs

Work with the Tahoe Regional Planning Agency/Tahoe Metropolitan Planning Organization (TRPA/TMPO), Placer County, Nevada County, Regional Transportation Commission of Washoe County, and other neighboring jurisdictions to explore a ride-matching/ridesharing program. The program should be focused on reducing commute-related VMT by increasing carpooling for residents with similar commute behavior and destinations.

Responsibility: Public Works Department

Time Frame: Short term

M-1.D

Mobile Rideshare Applications

Research ridesharing/ride-matching mobile applications and websites that could be used by or promoted to residents and businesses in Truckee to reduce traffic congestion, commute-related VMT, and single-occupant vehicle trips. Identify the most appropriate mobile apps to promote and integrate these resources into the Town's other TDM initiatives.

Responsibility: Public Works Department

Time Frame: Short term

M-1.E

Transportation Network Company Greenhouse Gas Reductions

Develop a strategy to work with Transportation Network Companies (TNCs) (e.g., Uber, Lyft), car-sharing services, and other transportation service companies to reduce greenhouse gas emissions through curb space management and by providing electric vehicle (EV) charging stations at strategic locations. Reduce deadhead VMT, which is VMT associated with TNC drivers searching for new passengers.

Responsibility: Public Works Department

Time Frame: Midterm

Sign for rideshare pickup/drop-off zone.

Goal CAP-2: Bicycle and Pedestrian Trips

Increase bicycle and pedestrian trips to reduce dependence on vehicles and promote community health.

Policies

The following policies from the Mobility Element address Goal CAP-2 and have been copied directly from the Mobility Element to the CAP Element to ensure consistency throughout the General Plan.

M-2.1
Truckee Trails and Bikeways Master Plan

Maintain and implement the Truckee Trails and Bikeways Master Plan to continue to expand the town's interconnected system of multi-use paths, bike lanes, trails, and sidewalks throughout the community that is safe and accessible to all users, including children, persons with disabilities, and seniors. Include an evaluation of protected bike lanes in the next update. Update the plan every 5-10 years to ensure the plan continuously reflects changing community needs.

M-2.5
Bicycle and Pedestrian Roadway Improvements

Use roadway, roundabout, and intersection improvements as an opportunity to improve bicycle and pedestrian facilities and connections, where feasible.

M-2.13
Bike Parking Requirements for New Development

Require new and intensifying nonresidential and multi-family residential projects to have adequate bike parking and storage. Consider whether bike parking or bike-share facilities can be applied toward parking reductions.

M-2.14
Adequate Bike Parking at Major Facilities

Provide adequate bike parking at all Town facilities and encourage similar parking at other agencies and major existing employers.

M-2.17
Bicycle and Pedestrian Education

Promote bicycle and pedestrian use through media campaigns, and continue to provide programs that educate the community about bicycle and pedestrian safety, the benefits of walking and biking, as well as the availability of facilities for the mobility impaired. Support focused programs for more vulnerable users such as school-age children, lower-income users, and the mobility impaired.

View of bike path.

Actions

The following actions from the Mobility Element address Goal CAP-2 and have been copied directly from the Mobility Element to the CAP Element to ensure consistency throughout the General Plan.

M-2.A

Trails and Bikeways Master Plan Update

Update the Trails and Bikeways Master Plan to continue to expand the town's interconnected system of bikeways, trails, and sidewalks. The update shall:

- identify locations for future trails and sidewalks, including potential future pedestrian facilities along the west end of Donner Lake; and
- determine which roadways are suitable for implementing reduced vehicle lane width, traffic calming measures, or expanded bike capacity to more safely accommodate pedestrians and bicyclists with the goal of eliminating traffic fatalities and severe injuries; and
- meet the most current state and federal requirements for active transportation plans.

> **Responsibility:** Public Works Department
>
> **Time Frame:** Short term

M-2.E

Bicycle and Pedestrian Roadway Improvements

Improve bicycle and pedestrian facilities and connections as part of Capital Improvement Projects for roadway, roundabout, and intersection improvements, where feasible.

> **Responsibility:** Public Works Department
>
> **Time Frame:** Ongoing

M-2.F

Assessment District Financing

Study the use of assessment district financing to enable the Town to generate sidewalk and pedestrian area maintenance fees to improve pedestrian access and circulation in commercial and mixed-use areas in the Gateway District, the Downtown, and as part of large private development projects such as the Railyard or Coldstream.

> **Responsibility:** Public Works Department
>
> **Time Frame:** Ongoing

M-2.I

New Pedestrian and Bicycle Facilities

Identify and implement new pedestrian and bicycle facilities beyond those identified in the Trails and Bikeways Master Plan and the Downtown Truckee Plan. These facilities may include, but not be limited to, pedestrian and bicycle facilities along Donner Pass Road and South Shore Drive adjacent to Donner Lake and in mixed-use areas in Tahoe Donner, Sierra Meadows, and Glenshire, and along SR 267 and SR 89 North.

> **Responsibility:** Public Works Department
>
> **Time Frame:** Short term

M-2.J

Downtown Bike and Pedestrian Connections

Implement the Downtown streetscapes as part of the Downtown Truckee Plan to complete sidewalks and pedestrian and bike connections on Jibboom, Bridge, Church, West River, and other Downtown streets, resulting in a Complete Street cross section accommodating all modes and users.

> **Responsibility:** Public Works Department
>
> **Time Frame:** Ongoing, as part of the annual budget process

M-2.K

Bicycle and Trail Promotion

Continue to work with partner organizations like the Truckee Trails Foundation, US Forest Service, Truckee Donner Land Trust, Visit Truckee Tahoe and Truckee Donner Recreation and Park District to promote development of appropriate bicycle and trail facilities and signage and to develop a comprehensive outreach strategy to increase the percentage of local trips made by biking and walking.

> **Responsibility:** Climate Action Team
>
> **Time Frame:** Ongoing

M-2.M

Bicycle Parking

Work with Truckee business owners, the Truckee Chamber of Commerce, and Truckee Downtown Merchants Association to increase short- and long-term bicycle parking at strategic locations that support multi-modal trips and consider the conversion of existing parking spaces to bike parking or bike-share facilities. Ensure that bicycle parking locations are closer and more convenient than vehicle parking options.

> **Responsibility:** Climate Action Team, Community Development Department
>
> **Time Frame:** Midterm

M-2.N

Bicycle Parking Capital Improvement Project

Create and implement a comprehensive bicycle parking Capital Improvement Project to close gaps in the town's overall bike network.

> **Responsibility:** Public Works Department
>
> **Time Frame:** Midterm

M-2.O

Shower and Locker Room Incentives

Create incentives for employers to incorporate shower facilities and locker rooms into new and existing development and require such facilities for large employers.

> **Responsibility:** Assistant to the Town Manager, Community Development Department
>
> **Time Frame:** Midterm

Pedestrian improvements along Donner Pass Road.

Goal CAP-3: Transit System

Promote a safe, accessible, equitable, and efficient local and integrated regional transit system, including bus, van, shuttle, and rail, to encourage broad support and use of public transit and reduce dependence on single-occupant vehicles.

Policies

The following policies from the Mobility Element address Goal CAP-3 and have been copied directly from the Mobility Element to the CAP Element to ensure consistency throughout the General Plan.

M-3.1

Transit Access

Require new development to incorporate features that accommodate and maximize transit access and use, including shelters, safe routes to transit stops, and Americans with Disabilities Act (ADA) improvements, and ensure that right-of-way for future transit (including school bus) access is reserved in plans for new growth areas.

M-3.2

Transit for Vulnerable, Underserved, and Underrepresented Groups

Engage and incorporate the transit needs of children, seniors, disabled, low-income, vulnerable, and transit-dependent persons in making decisions regarding transit services and compliance with the ADA and Title VI of the Civil Rights Act.

M-3.4

First-Last Mile Solutions

Prioritize capital improvements, transit services, and land use decisions that integrate first-last mile solutions that connect passengers to and between alternative transportation modes including rail, intercity bus service, biking, and walking.

M-3.6

Transit Use and Transfers

Work to increase ridership by maintaining a "fare-free" system, reducing headways from current one-hour headways, increasing service area coverage, and expanding route connections, including transfers between different modes of transport such as Reno/Tahoe International Airport, Truckee Tahoe Airport, bicycle, rail, and interregional bus service.

Source: Town of Truckee.

TART bus at Truckee Train Depot.

M-3.7
Transit Signal Priority
Increase the competitiveness and reliability of transit use with private automobiles and improve on-time performance through installation of transit signal priority technology. Work with Placer County and Caltrans to plan, design, and implement managed and/or dedicated transit lanes and "queue jumping" at strategic intersections and points of congestion.

M-3.8
Bus Shelters and Passenger Amenities
Design new ADA-accessible bus and van/shuttle stops and shelters and include bicycle racks and bicycle maintenance stations, lighting, and animal-resistant trash and recycling stations to the maximum extent practicable. Incorporate security features and technology to ensure stops and shelters are safe, inviting, and routinely accessible during operating hours for all services. Maximize opportunities to incorporate rider information and real-time transit vehicle location and estimated time of arrival. Given the success of microtransit, curbspace management should be considered and evaluated in commercial cores and along major corridors.

M-3.9
Low/No-Emissions Transit Fleets
Work with local and regional special districts, agencies, community partners and businesses with large vehicle fleets to encourage conversion to low-and zero- emissions vehicles such as electric or hybrid buses or renewable-diesel fueled. In collaboration with electric utilities, explore using electric fleet batteries for back-up and supplemental energy.

M-3.11
Interregional Transit Services
Collaborate and proactively plan with regional partners to expand the provision of interregional transit services to and from the Lake Tahoe Basin, summer and winter recreation destinations, public lands, and the Reno metro area, as funding permits.

Actions

The following actions from the Mobility Element address Goal CAP-3 and have been copied directly from the Mobility Element to the CAP Element to ensure consistency across the General Plan.

M-3.A
Short Range Transit Plan
Maintain, implement, and update the statutorily required Eastern Nevada County Short Range Transit Plan led by the Nevada County Transportation Commission (as the regional transportation planning agency).

> **Responsibility:** Public Works Department
>
> **Time Frame:** Short term

Tahoe Truckee Area Regional Transit bus service.

M-3.B

Long Range Transit Plan

Maintain, implement, and update Truckee's Long Range Transit Plan that anticipates a series of improvements and expansion plans and capital facilities, including:

- reduced headways on all transit routes;
- connection points that consider all modes;
- expanded and enhanced dial-a-ride programs for on-call and ADA rides through better ride scheduling and booking technology; and
- new neighborhood connection routes in critical places such as Tahoe Donner, Prosser-Lakeview, Donner Lake, and Glenshire, including bus shelters, local and regional mobility hub centers, and service expansion.

> **Responsibility:** Public Works Department
>
> **Time Frame:** Short term

Ski resort shuttle service in Lake Tahoe region.

M-3.D

Grant Funding for Transit Services

Pursue all available sources of funding for capital and operating costs of transit services including but not limited to the Federal Transit Administration and the State of California. Consider ongoing funding through major developers such as the assessment districts formed for the Coldstream Specific Plan, Joerger Ranch Specific Plan, and Railyard Master Plan.

> **Responsibility:** Public Works Department
>
> **Time Frame:** Ongoing

M-3.E

Placer County and Tahoe Truckee Unified School District Partnership

Partner with Placer County and the Tahoe Truckee Unified School District, and coordinate with special districts to provide extensive outreach and education to local schools and explore opportunities to coordinate ridesharing and bell times with the regional network, continue a fare-free system, connect to after-school activities, and provide bike storage and safe routes to school to increase ridership and eliminate barriers to last-mile travel Pursue opportunities for regional fleet electrification to support conversion and consistency in infrastructure.

Responsibility: Public Works Department

Time Frame: Short term

M-3.F

Community Outreach and Marketing Campaign

Work with Keep Truckee Green, local community organizations, Tahoe Truckee Area Regional Transit (TART), Truckee North Tahoe Transportation Management Association (TMA) and other partners to develop a community-led marketing campaign focused on increasing transit ridership and promoting the community benefits and equity considerations inherent in transit planning. Conduct community outreach to identify the largest barriers to increasing transit ridership and develop a strategy to remove these barriers.

Responsibility: Climate Action Team

Time Frame: Short term

Bus shelter along State Route 89.

M-3.I

Bus Shelter Requirements

Amend the Development Code to identify bus shelter requirements for new major developments. Require new bus shelters to be ADA accessible and include real time bus technology, bicycle racks, bicycle maintenance stations, lighting, and animal-resistant trash and recycling stations.

Responsibility: Public Works Department

Time Frame: Midterm

M-3.K

First-Last Mile Gap Analysis

Work with active transportation organizations and other stakeholders to conduct a first-last mile gap analysis for the town's transit system and identify key strategies to remove first-last mile issues for transit riders. Strategies could include increasing bike share, microtransit, and bike parking at transit stations; increasing vehicle parking at transit stops and neighborhood nodes; increasing signage and wayfinding; and increasing infrastructure for walking and biking (e.g., bike lanes, bike parking, sidewalks, crosswalks).

Responsibility: Public Works Department

Time Frame: Ongoing

M-3.M

Transportation Working Group

Work with TART and the Truckee North Tahoe Transportation Management Association and relevant community organizations to convene a working group similar to a social service transportation advisory council. This group would comprise representatives knowledgeable about the needs, including unmet transit needs, of senior, disabled, low-income, and transit-dependent persons. Integrate feedback and suggestions from the working group into future updates to the transit system and to Truckee's Long Range Transit Plan.

Responsibility: Public Works Department

Time Frame: Short term

Goal CAP-4: Low- and Zero-Emissions Vehicles

Increase low- and zero-emissions vehicle options to work toward a carbon-neutral transportation system.

Policies

The following policies from the Mobility Element address Goal CAP-4 and have been copied directly from the Mobility Element to the CAP Element to ensure consistency throughout the General Plan.

M-2.12

E-Bike Infrastructure

Ensure adequate infrastructure for e-bikes such as universal charging and docking stations in new and redeveloped commercial and multi-family residential projects and Town facilities. Create an integrated regional bike-share program, develop standards for new infrastructure, and encourage other agencies and major employers to install e-bike charging stations and regional bike-share docking stations.

M-3.10

Low/No-Emissions Microtransit Vehicles to Complement Fixed-Route Transit

Expand van, shuttle, on-demand ride, trip consolidation software, ridesharing, and other technologies emphasizing no- or low-emissions vehicles such as electric or hybrid to augment or complement fixed-route transit through microtransit services.

In addition, the following CAP Element policies address Goal CAP-4:

CAP-4.1

Low- and Zero-Emissions Vehicles

Support cleaner, sustainable renewable, low-carbon fuels, including renewable electricity or hydrogen fuel cells, and support fuel efficiency measures that would reduce the amount of gasoline and diesel fuel consumed. The Town is required to convert the Town fleet to zero- and low-emissions vehicles in compliance with California State law.

CAP-4.2

Charging Station System

Enhance the electric vehicle charging station network throughout town for both public and private fleets.

CAP-4.3

EV-Ready Installation Infrastructure

Require new residential and nonresidential developments to have EV–ready installation infrastructure or installed EV charging stations.

Actions

The following actions from the Mobility Element address Goal CAP-4 and have been copied directly from the Mobility Element to the CAP Element to ensure consistency throughout the General Plan.

M-1.F

Electric Vehicle and Bike Charging Stations

Provide electric vehicle and bike charging stations at Town facilities and throughout Truckee with free charging and/or free parking. Work with partner agencies and private businesses to expand the charging station network. Incentivize electric vehicle purchases and use by providing free or low-cost charging. Collaborate with utility providers to provide incentive/rebate for this purpose.

Responsibility: Public Works Department

Time Frame: Ongoing

M-2.H

Green Business Certification Process

Advocate for integration of TDM programs and EV and e-bike parking and charging into the Sierra Business Council's Green Business Certification program.

Responsibility: Assistant to the Town Manager

Time Frame: Short term

M-2.P

E-Bike Trail Use

Monitor the development of state and federal standards and evaluate current design standards to accommodate certain classes of e-bikes on major multi-use bikeways and trails. Amend the Trails and Bikeways Master Plan and the Municipal Code, as necessary. Where feasible, redesign existing trails to accommodate emerging technologies to reduce conflicts and provide for a wide variety of users. Investigate e-bike safety, the need for any corresponding municipal code revisions and e-bike safety education to ensure continued trail safety for all users.

Responsibility: Public Works Department

Time Frame: Ongoing

Public electric vehicle charging station in Downtown Truckee.

Electric vehicle chargin stations in the Railyard.

In addition, the following CAP Element policies address Goal CAP-4:

CAP-4.A

Incentives for Zero-Emissions Vehicles

Explore incentive programs to convert existing van, shuttle, taxi, rideshare, and call-up ride services to zero-emissions vehicles, and encourage businesses and other agencies to provide EV charging stations.

- **Responsibility:** Climate Action Team
- **Time Frame:** Midterm

CAP-4.B

Electric Vehicle Charging Ordinance

Adopt an ordinance establishing minimum requirements for either prewiring or installing electric vehicle supply equipment, as defined by Article 625 of the California Electrical Code, in all new residential and nonresidential development in Truckee.

- **Responsibility:** Community Development Department
- **Time Frame:** Midterm

CAP-4.C

EV Charging Station Guidelines and Permitting Procedures

Develop guidelines for the design and construction of EV charging stations for incorporation into the Town's Development Code as part of the EV charging station ordinance process. Use the Governor's Office of Planning and Research's Zero-Emission Vehicles in California: Community Readiness Guidebook (OPR 2015) to help guide development of the EV charging station guidelines. Develop a process to streamline and expedite permitting for EV chargers in single-family residences.

- **Responsibility:** Community Development Department
- **Time Frame:** Midterm

CAP-4.D

Incentives and Rebates for Electric Vehicles

Provide incentives and rebates for homeowners to install home charging stations and purchase EVs. Develop an outreach strategy to promote existing rebates and incentives for EVs and EV charging stations provided by the Truckee Donner Public Utility District.

- **Responsibility:** Climate Action Team
- **Time Frame:** Midterm

CAP-4.E

Charging Station Standards for Commercial and Multi-Family Development

Update the Development Code to require EV and electric bicycle charging stations in new commercial and multi-family development.

- **Responsibility:** Community Development Department
- **Time Frame:** Short term

Goal CAP-5: Land Use Patterns

Reduce reliance on vehicles by encouraging higher-density housing near businesses and amenities (e.g., trails, community gathering spaces) that serve the daily needs of residents.

Policies

The following policy from the Mobility Element addresses Goal CAP-5 and has been copied directly from the Mobility Element to the CAP Element to ensure consistency throughout the General Plan.

M-1.1

Integration of Land Use and Climate Action Planning and Decisions

During review of land use entitlements and the preparation of new or amended specific plans or master plans, promote context-sensitive strategies that will reduce greenhouse gas emissions, including the reduction of single-occupant automobile trips, through compact, higher-density, pedestrian-oriented development; neighborhood-serving commercial and mixed-use centers; and infill development near transit, bicycle, or pedestrian infrastructure.

Compact development near Downtown helps reduce VMT.

The following policies from the Land Use Element address Goal CAP-5 and have been copied directly from the Land Use Element to the CAP Element to ensure consistency throughout the General Plan.

LU-2.4

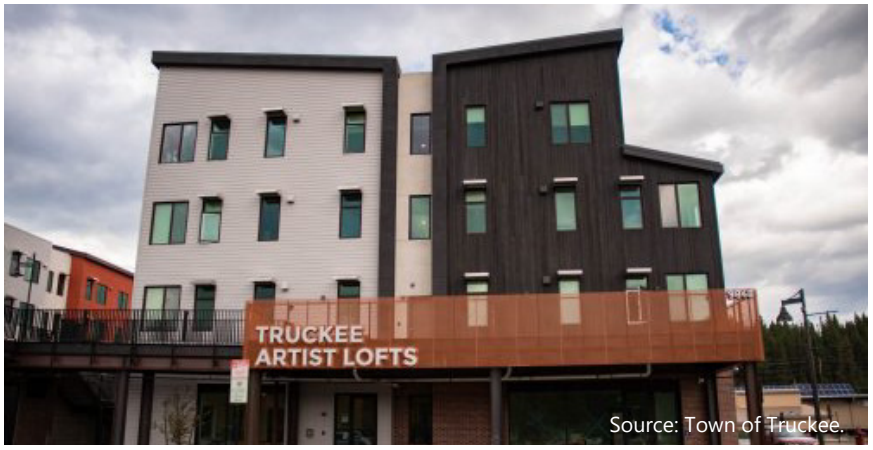
Streamline Affordable Housing Development

Use regulatory and voluntary tools to streamline affordable housing development along existing and planned transit routes and near services and jobs.

LU-2.5

Healthy Jobs-Housing Balance

Incorporate information from the North Tahoe Regional Workforce Housing Needs Assessment and future housing needs studies into the Town's housing strategy to maintain a healthy jobs-housing balance in Truckee.



Truckee Artist Lofts provides workforce housing.

Actions

The following actions from the Land Use Element address Goal CAP-5 and have been copied directly from the Land Use Element to the CAP Element to ensure consistency throughout the General Plan.

LU-1.D

Transfer of Development Rights

Evaluate the feasibility of establishing a transfer of development rights (TDR) program that helps achieve the 2040 General Plan land use goal to create efficient land use patterns and conserve land on the town's perimeter while encouraging growth in the urban core. Utilize the open space, natural resources, and wildlife recreation maps developed through Action COS-1.C to inform the program and identify potential sending sites.

Responsibility: Community Development Department

Time Frame: Short term

LU-2.A

Workforce Housing Strategy

Work with existing large employers to develop a strategy to increase workforce housing in Truckee for employees and their families. The strategy should emphasize co-benefits for both employers (e.g., potential new revenue, employee reliability) and employees (e.g., decreased commute lengths, cost savings, quality-of-life improvements).

Responsibility: Community Development Department, Assistant to the Town Manager

Time Frame: Ongoing

LU-2.F

Incentives for Accessory Dwelling Units

Create a new housing program that incentivizes the construction of accessory dwelling units within one mile of Downtown and the Gateway District.

Responsibility: Community Development Department

Time Frame: Short term

LU-8.C

Tahoe Forest Hospital Master Plan

Partner with Tahoe Forest Hospital to develop a comprehensive hospital campus master plan. Identify in the Master Plan ways that the hospital can reduce its carbon footprint/greenhouse gas emissions, maximizes opportunities for denser development, employee housing on campus, trip reduction, trip sharing, structured parking, and provision of "on-campus" services to reduce employee trips.

Responsibility: Community Development Department

Time Frame: Short term

Example of an accessory dwelling unit.

Goal CAP-6: Open Space and Carbon Sequestration

Conserve open space and improve land carbon sequestration potential to enhance the resilience of natural spaces.

Policies

CAP-6.1

Land Conservation

Support and identify new opportunities for land conservation in and surrounding the town. Consider wildfire risk reduction strategies in the identification and implementation process.

CAP-6.2

Open Space Restoration

Protect, increase, and restore open space while working to expand the carbon sequestration potential of land.

The Community Character Element and the Conservation and Open Space Element include additional policies and actions to preserve open space.

Actions

The following action from the Community Character Element addresses Goal CAP-6 and has been copied directly from the Community Character Element to the CAP Element to ensure consistency throughout the General Plan.

CC-1.C

Tree Preservation Standards

Review the Development Code for opportunities to strengthen the tree preservation ordinance to protect mature, significant trees, strengthen regulation on unpermitted removal of trees and grading disturbance, and ensure tree succession planting where possible in the project development process and re-forestation of shrublands, while ensuring that regulations are not in direct conflict with wildfire management goals. For projects with substantial tree removal, consider adding off-site re-forestation requirements, should adequate sites be available.

Responsibility: Community Development Department

Time Frame: Midterm

Meadow in Martis Wildlife Area.

In addition, the following CAP Element policies address Goal CAP-6:

CAP-6.A

Carbon Sequestration

Quantify existing carbon sequestration values and work with land conservation organizations (e.g., Truckee Donner Land Trust) and coordinate with local, regional, and state agencies to identify opportunities to preserve open space areas, plant additional tree corridors, restore degraded meadows, and manage vegetation to increase the sequestration of carbon. Evaluate the feasibility of creating re-forestation sites to offset the loss of mature native trees removed in the course of land use development and vegetation removal projects and amend the Development Code to require or allow off-site tree replacement.

Responsibility: Assistant to the Town Manager

Time Frame: Midterm

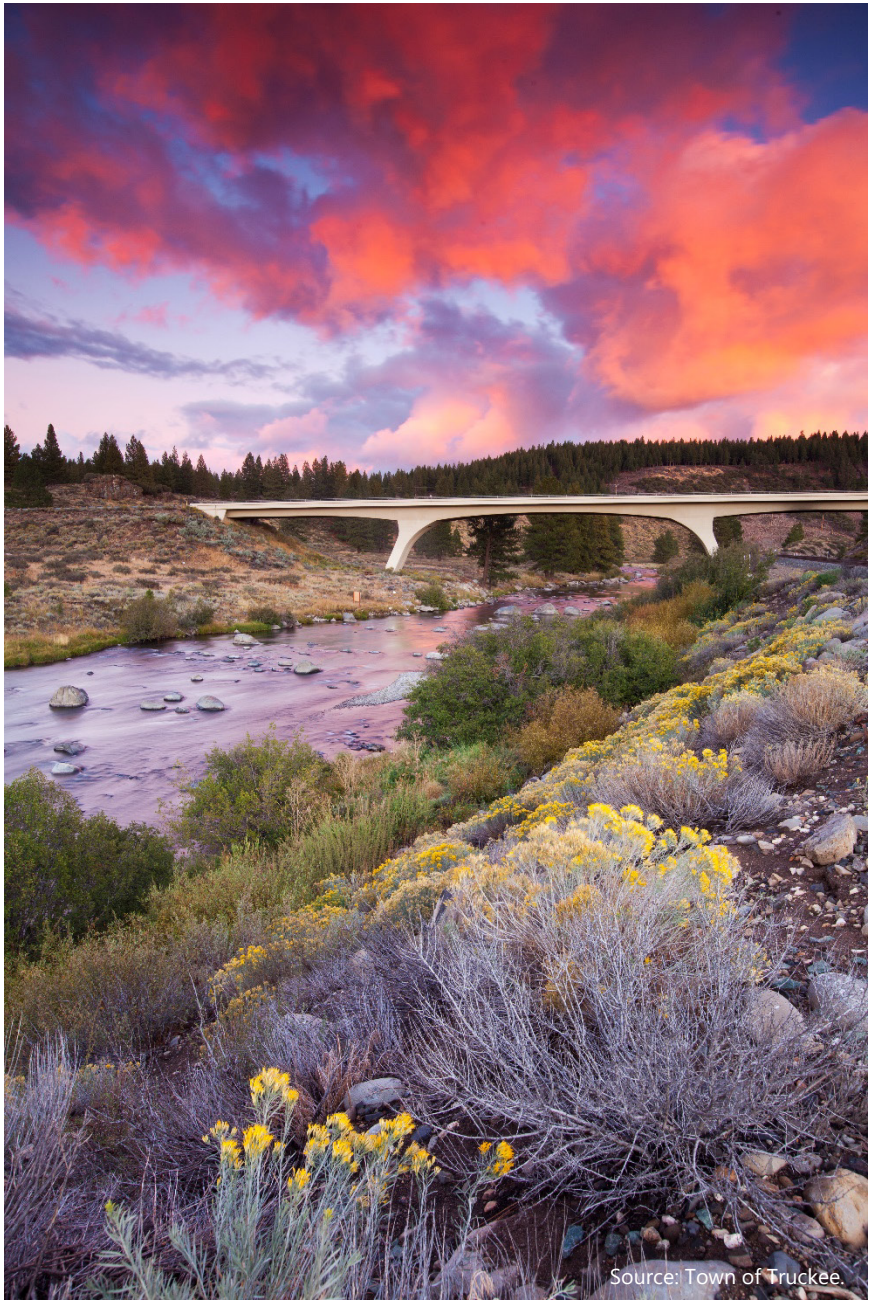
CAP-6.B

Truckee Forest Management Plan

In partnership with the Tahoe Truckee Community Foundation and other agencies (e.g., California Department of Fish and Wildlife, California Department of Forestry and Fire Protection, Truckee Fire Protection District), develop the Truckee Forest Management Plan by 2025 with the goal of increasing the carbon sequestration potential of Truckee's forests and natural lands while reducing wildfire risk. Consider fuel management strategies, such as using wood chipping rather than burn piles, using cleared fuels for lumber or wood products, and using biomass as a fuel source.

Responsibility: Assistant to the Town Manager

Time Frame: Short term



Natural vegetation along the Truckee River.

Goal CAP-7: Energy Efficiency in Existing Development

Increase energy efficiency in existing developments to reduce energy use in the built environment.

Policies

CAP-7.1
Renewable Energy Sources

Support utility providers in achieving 100 percent renewable energy by increasing renewable energy sources, including renewable electricity, renewable natural gas, and geothermal energy. Support regional efforts to develop renewable energy sources and supportive funding opportunities.

CAP-7.2
Resource Conservation Outreach Programs

Continue to work with local utility providers to develop outreach programs and materials to educate and influence the resource conservation behavior of residents, businesses, and visitors.

CAP-7.3
Energy Efficiency Upgrades at Town Facilities

Continue to employ energy efficiency upgrades as part of regular municipal maintenance operations and incorporate cost-effective renewable energy options.

CAP-7.4
Decarbonization

Work toward decarbonization of existing buildings while supplementing costs and other burdens for vulnerable populations.

CAP-7.5
Building Energy Retrofit Program

Develop and implement a comprehensive building energy retrofit program for residential and non-residential buildings, including lighting retrofits, to improve energy efficiency and increase electrification in existing buildings.

Insulation and window retrofit improves energy efficiency.

CAP-7.6
Water Conservation

Promote indoor and outdoor water conservation to reduce water and water-related energy use.

The Conservation and Open Space Element includes additional policies and actions to conserve energy.

Actions

CAP-7.A

Building Energy Retrofit Program

Work with energy providers, including the Truckee Donner Public Utility District (TDPUD) and Liberty Utilities, to develop a comprehensive building electrification and energy efficiency retrofit program by 2024. Offer incentives, financing mechanisms, and technical assistance and conduct initial energy audits to facilitate appliance upgrades, building envelope improvements (e.g., insulation, window upgrades), and lighting and heating, ventilation, and cooling (HVAC) system replacements. As part of the program:

- identify opportunities to pilot projects with participating residents and businesses to provide an example of potential savings that can be achieved through the program;
- collaborate with local property assessed clean energy providers to help finance larger retrofit projects;
- identify and incorporate funding options and subsidies for residents, including enhanced options for low-income households to ensure equitable participation in the program; and
- strive to achieve a 20 percent reduction in energy consumption in existing residential uses and a 15 percent reduction in existing nonresidential uses by 2030.
- establish additional 2035 and 2040 energy consumption reduction targets.
- work with relevant stakeholders (e.g., the Contractor's Association of Truckee Tahoe, local equipment vendors, Truckee Donner Public Utility District, and others) to provide local training and workshops for energy efficiency upgrades and existing building decarbonization practices.

> **Responsibility:** Community Development Department, Assistant to the Town Manager

> **Time Frame:** Short term

Liberty Utilities' 50 MW solar project.

CAP-7.B

Renewable Natural Gas Supply

Work with Southwest Gas, other municipalities and other relevant stakeholders, beginning in 2022, to develop a timeline with specific targets to increase the supply of renewable natural gas to Truckee residents. Explore the costs and benefits of various pathways to providing renewable natural gas to Truckee residents and pursue the most cost-effective path that still achieves GHG reductions. Strive to achieve a 25 percent greenhouse gas reduction in natural gas by 2030. Set reduction targets for 2035 and 2040 and explore reliable alternatives to natural gas.

> **Responsibility:** Assistant to the Town Manager

> **Time Frame:** Short term

CAP-7.C

Utility Rates

Work with local utilities to adopt utility rates that incentivize and balance energy efficiency, renewable energy, and other future clean energy efforts that may impact demand with consideration of customer needs. Encourage shifting customer usage to periods when the demand on the grid is lowest and/or to periods when renewable energy sources are highest, including implementation of a time-of-use electric rate by local electric providers.

> **Responsibility:** Assistant to the Town Manager

> **Time Frame:** Short term

CAP-7.D

Clean Energy Alliance

Support an alliance of local agencies, large consumers, utilities, and nonprofit organizations to drive a regional transition to clean energy, including innovative alternative fuels such as community solar, wind, biofuels or biomass, geothermal, geogrid heating and others.

- **Responsibility:** Assistant to the Town Manager
- **Time Frame:** Short term

CAP-7.E

Rural Regional Energy Network

Explore possibilities for joining or helping to develop a rural regional energy network to implement Policies CAP-7.1 and CAP-7.5 to decarbonize existing buildings in the town.

- **Responsibility:** Assistant to the Town Manager
- **Time Frame:** Short term

CAP-7.F

Town Facility Retrofits

Retrofit existing Town facilities and support other local agencies' efforts to pursue upgrades of existing facilities as part of future Capital Improvement Projects, considering use of all-electric energy, efficient natural gas units, and renewable energy generation. Explore phasing out natural gas use in Town facilities to the greatest degree possible.

- **Responsibility:** Assistant to the Town Manager
- **Time Frame:** Midterm

Local power substation.

CAP-7.G

Water Conservation Education

Provide educational material for residents and businesses on water conservation tips and the nexus between water use and energy use. Promote TDPUD's existing water-saving programs (e.g., water-efficient toilet upgrades, rebates for water leak repairs) on the Town's website and at the Town planning counter, including information from local landscape professionals on appropriate native and drought-tolerant landscape design solutions for existing and new development.

- **Responsibility:** Community Development Department
- **Time Frame:** Short term

CAP-7.H

Roadmap to Decarbonization

By 2025, develop a policy roadmap to decarbonize existing buildings while supplementing costs and other burdens for vulnerable populations.

Responsibility: Assistant to the Town Manager

Time Frame: Short term

CAP-7.I

Retrofit Incentive Promotion

Provide and promote incentives for electric HVAC system replacements (i.e., heat pumps) and other electric appliances (e.g., water heaters, cooktops) on the Town website and at the Town planning and permitting counters.

Responsibility: Community Development Department, Assistant to the Town Manager

Time Frame: Ongoing

CAP-7.J

Building Energy Use Reduction Education

Invest in education and outreach about the multiple benefits of reducing building energy usage (e.g., reduce energy costs, improve air quality, improve community members' heath, etc.) and conversion to electric space and water heating.

Responsibility: Community Development Department, Assistant to the Town Manager

Time Frame: Ongoing

CAP-7.K

Building Permit Prioritization Program

Explore the creation of a building permit prioritization program, through stakeholder engagement/stakeholder committee, for building decarbonization projects, that considers:

- prioritization for most impact (i.e., highest cost-benefit ratio)
- creation of a Town staff navigator position/staff technical support
- the financial implications to the Town Building Division, an enterprise fund, and any fee schedule adjustments necessary to support the program, or possible General Fund subsidies
- educational program
- decarbonization funding (e.g., loans, public-private partnership, incentives).

Responsibility: Community Development

Time Frame: Midterm

Goal CAP-8: Energy Efficiency in New Development

Promote and incentivize building electrification and energy efficiency in new construction activities.

Policies

CAP-8.1

Fossil Fuel Reduction

Discourage use of fossil fuels in new buildings and incentivize electrification to minimize GHG emissions.

CAP-8.2

Zero Net Energy Standard

Develop a Zero Net Energy (ZNE) Standard to minimize energy use in new residential and nonresidential development.

CAP-8.3

Alternative Building Materials

Support the use of innovative and alternative building materials and designs to improve energy efficiency. Encourage voluntary actions, such as compliance with the Leadership in Energy and Environmental Design standard or the Build It Green point system.

The Conservation and Open Space Element includes additional policies and actions to conserve energy.

Actions

CAP-8.A

Reach Code

Develop and adopt, in partnership with stakeholders and approval from the California Energy Commission, a reach code by 2025 that requires new development projects above a certain threshold (e.g., square footage, cost, or type of improvement) to comply with California Green Building Standards Code Tier 1 standards. Strive to meet a target of reducing energy use by 20 percent over minimum Title 24 standards for residential land uses and 15 percent for nonresidential land uses. Incorporate flexibility and exemptions into the reach code to ensure that affordable and low-income housing projects are not disproportionately affected by the ordinance. Allow exemptions to the solar mandate to replace lost energy generation with equal energy savings by other measures.

- **Responsibility:** Community Development Department
- **Time Frame:** Short term

CAP-8.B

All-Electric Development Incentives

Conduct a comprehensive review of the Town's permit fee structure and development review process by 2025. Identify key areas that can be updated to defer planning, permitting, and inspection fees and streamline the development review process for applicants who commit to developing all-electric residential and nonresidential development projects.

- **Responsibility:** Community Development Department
- **Time Frame:** Short term

CAP-8.C

Zero Net Energy Standard

Adopt and implement a ZNE Standard by 2030 to require zero net emissions from building energy in new residential developments and a 75 percent emissions reduction in new nonresidential development, compared to Title 24 standards. Identify and incorporate exemptions for energy-intensive nonresidential land uses that may not be able to achieve the ZNE Standard. The CAP will be revisited in four years. During that process the ZNE action item will be specifically addressed to determine feasibility. The feasibility analysis will utilize input from stakeholders and a wide range of industry experts including the building industry, working in partnership with the Town's overall assessment and efforts. If deemed infeasible, alternative, comparable, mitigation measures will be explored. Update the Town website to provide information on the ordinance, and proactively work with applicants to make compliance with the ordinance as effective and efficient as possible.

- **Responsibility:** Community Development Department
- **Time Frame:** Midterm

CAP-8.D

Energy Efficiency Upgrade Trainings

Collaborate with the Northern California Chapter of the US Green Building Council, TDPUD, Liberty Utilities, Southwest Gas, and community organizations to provide local training and workshops for energy efficiency upgrades and green building design. Focus outreach for training on historically underserved communities, low-income residents, and unemployed or underemployed residents to ensure equitable access to training and job opportunities.

- **Responsibility:** Community Development Department
- **Time Frame:** Ongoing

CAP-8.E

Outdoor Water Use Reductions

Review and update Division 5.3, "Water Efficiency and Conservation," of the Town of Truckee California Green Building Code Requirements for nonresidential development projects to ensure project designs include a 20 percent reduction in outdoor water use compared to the Town's WS-1R Worksheet (baseline water use) for new development projects.

- **Responsibility:** Community Development Department
- **Time Frame:** Short term

The Town's Public Service Center includes a rooftop photovoltaic system.

Goal CAP-9: Organic Waste

Reduce the amount of organic waste generated in Truckee.

Policies

CAP-9.1

Organic Waste Diversion

Increase organic waste diversion rates for businesses, residents, and public agencies while supporting local renewable natural gas production, as appropriate.

The Conservation and Open Space Element includes additional policies and actions to reduce solid waste generation.

CAP-9.2

Alternative Fuel Sources

Consider alternative fuel sources, including local anaerobic digestion, biofuel, biodiesel, methane capture from wastewater processing, and forest biomass as potential energy sources.

Actions

CAP-9.A

Recycling and Composting Ordinance

Reduce and eventually eliminate disposal of compostable organic materials to landfills, through the implementation and enforcement of Senate Bill 1383. Require applicable food operators and large businesses to implement organization-wide waste reduction and diversion initiatives. Create an engagement strategy to educate the community, encourage residents to minimize organic waste generation and maximize diversion through composting, and provide convenient food waste collection locations. Offer incentives, financial support, and partnerships to support robust engagement.

- **Responsibility:** Assistant to the Town Manager
- **Time Frame:** Short term

CAP-9.B

Edible Food Recovery

Engage with stakeholders (e.g., Nevada County, Placer County, religious institutions, and local food donation, recovery, and collection organizations) to build robust collection and food storage capacity, and reliable and equitable distribution systems, to achieve the food recovery goal established in Senate Bill 1383 of increasing edible food recovery by 20 percent by 2025. Partner with large food waste generators such as supermarkets, wholesale distributors, and large hotels, and create a platform to connect donators and receivers.

- **Responsibility:** Assistant to the Town Manager
- **Time Frame:** Short term

Compost services provided by Keep Truckee Green.

CAP-9.C

Development Standards for Organic Waste Collection

Update the Town's development standards to ensure that the design of new commercial developments is adequate for organic waste collection.

- **Responsibility:** Assistant to the Town Manager, Community Development Department
- **Time Frame:** Short term

CAP-9.D

Sustainability and Climate Change Education

Through Keep Truckee Green and local partners, implement educational programming for students on how to take environmental action, and increase sustainability and climate change education in public school curriculum.

- **Responsibility:** Assistant to the Town Manager
- **Time Frame:** Ongoing

Composting at Glenshire Elementary.

Goal CAP-10: Overall Consumption

Minimize embedded carbon emissions and reduce overall consumption.

Policies

CAP-10.1

Single-Use Items

Increase recycling and reuse, and reduce the use of single-use items throughout the community.

CAP-10.2

Packaging, Production, Goods Transportation Waste

Encourage all organizations, particularly large waste-generating organizations, to reduce waste in packaging, production, and transportation of goods to Truckee.

CAP-10.3

Refurbishment, Repair, and Reuse

Support development programs that teach refurbishment, repair, and reuse, while increasing education and awareness campaigns that focus on reuse and repair as a first priority. Work with community partners to adopt waste reduction pledges and create marketing campaigns to brand a "cool" culture of sustainability.

Actions

CAP-10.A

Reduce Single-Use Items

Work with residents and businesses, specifically restaurants, to reduce and eliminate single-use items and adopt guidelines encouraging reusable foodware in-house. Consider updating the guidelines to include methods for reducing or eliminating single-use items at events.

- **Responsibility:** Assistant to the Town Manager
- **Time Frame:** Short term

CAP-10.B

Reuse Facility and Repair Hubs

Work with partners to investigate the feasibility of a reuse facility or specified location at the Eastern Regional Landfill that makes building materials available to customers and acts as an outlet for reusable items otherwise destined for a landfill. Create hubs for businesses and residents to learn skills in repair and reuse, and support creation of a civic-public partnership that connects residents to sharable goods and services.

- **Responsibility:** Assistant to the Town Manager
- **Time Frame:** Midterm

CAP-10.C

Ordinance to Discourage Single-Use Items

Consider implementing an ordinance that makes use of charges, incentives, and requirements to facilitate behavioral change on use of disposable foodware and other single-use items, with a focus on equitable application.

> **Responsibility:** Assistant to the Town Manager
>
> **Time Frame:** Short term

Example of gear repair and reuse.

CAP-10.D

Consumption-Based Emissions Study

Conduct a consumption-based emissions study for Truckee by 2030 to identify life-cycle emissions costs of the products residents and visitors purchase at the store and online. Research and identify appropriate standard for conducting the study. Examples and resources include the following:

- Urban Sustainability Director's Network Consumption Based Emissions Inventory (CBEI),
- C-40 Consumption-Based GHG Emissions Report,
- Production, Consumption and Lifecycle Greenhouse Gas Inventories: Implications for CEQA and Climate Action Plans – Association of Environmental Professionals White Paper, and
- Life Cycle Database as part of the Greenhouse Gas Protocol.

> **Responsibility:** Assistant to the Town Manager
>
> **Time Frame:** Midterm

Goal CAP-11: CAP Implementation, Monitoring, and Reporting

Implement CAP goals, policies, and actions through a comprehensive implementation, monitoring, and reporting program.

Policies

CAP-11.1

Interjurisdictional and Interagency Collaboration

Promote regional interjurisdictional and interagency collaboration on all relevant climate action measures.

CAP-11.2

CAP Implementation Progress Updates

Ensure elected officials and the public are regularly updated on CAP implementation and progress achieved toward the Town's GHG reduction targets.

CAP-11.3

Local Agency Greenhouse Gas Inventories

Encourage and support other local agencies to perform regular greenhouse gas emissions inventories and share the data with the Town.

Actions

CAP-11.A

Sierra Regional Climate Action Planning Program

Work with other jurisdictions and agencies (e.g., Nevada County, Placer County, the Tahoe Regional Planning Agency) to form and maintain a Climate Transformation Alliance and establish the Sierra Regional Climate Action Planning Program to support regional and local GHG reduction strategies. Include representatives from relevant nonprofit organizations, business associations, community organizations, and educational institutions to ensure strong community support and representation in the collaborative leadership. Potential implementation actions to support the regional program include:

- identifying common GHG reduction strategies between jurisdictions, and developing an information sharing and mutual aid system to support the successful implementation of these strategies at the local level;
- ensuring adequate funding, resources, and expertise are provided to the collaborative to ensure a long-term and sustainable model for strategy implementation;
- as part of the collaborative, establishing working groups focused on major emissions sectors (e.g., building energy use, transportation, solid waste) to support the implementation of sector-specific strategies; and
- establishing a permanent funding source for the collaborative to ensure GHG reduction strategies can be fully implemented. Use funding to implement GHG reductions strategies while ensuring businesses, low-income households, and disadvantaged communities are not unduly burdened by the costs and impacts of strategy implementation.

Responsibility: Assistant to the Town Manager

Time Frame: Ongoing

CAP-11.B

Sustainability Coordinator

Hire or appoint a sustainability coordinator, by 2023, to lead implementation and monitoring of the CAP as well as to collaborate with internal staff and regional partners on climate action.

> **Responsibility:** Assistant to the Town Manager, Community Development Department

> **Time Frame:** Short term

CAP-11.C

Climate Action Team

Establish a Climate Action Team, by 2023, composed of key staff from Town departments, community organizations, and other stakeholders who will be involved in CAP implementation and monitoring.

> **Responsibility:** Sustainability Coordinator

> **Time Frame:** Short term

CAP-11.D

CAP Development Review Checklist

Develop a CAP Development Review Checklist, within 6 months of adoption of the updated General Plan, to assist in the California Environmental Quality Act (CEQA) streamlining process in reference to CEQA Guidelines Section 15183.5, and include all necessary CAP strategies for new development projects to achieve CAP greenhouse gas reduction targets.

> **Responsibility:** Community Development Department

> **Time Frame:** Short term

CAP-11.E

CAP Implementation and Progress Reports

Monitor CAP implementation on a quarterly basis, and report progress toward achieving the CAP's greenhouse gas reduction targets to the Town Council on an annual basis. Create a CAP monitoring and reporting tool to assist with annual reports that includes an implementation matrix for consolidated tracking and reporting on progress for each goal or policy.

> **Responsibility:** Climate Action Team

> **Time Frame:** Ongoing

CAP-11.F

Greenhouse Gas Emissions Inventory

Update the Town's GHG emissions inventory and the CAP at a minimum of every four years to incorporate new technologies for GHG reductions, new state programs and legislation that affect GHG emissions, and new or updated local measures to reduce GHG emissions. If the annual reporting and monitoring actions (conducted in CAP-11.E) indicate that the goals and policies included in CAP are not collectively achieving appropriate progress toward the Town's GHG reduction targets, Town staff shall prepare and present to the Town Council recommended revisions to the CAP that would modify or replace measures to the extent necessary to achieve the GHG reduction targets.

> **Responsibility:** Climate Action Team

> **Time Frame:** Ongoing

CAP-11.G

Climate Action Plan Program Cost-Benefit Analysis

Conduct cost-benefit analysis of climate action programs and include the results in Council staff reports for new program proposals.

> **Responsibility:** Climate Action Team

> **Time Frame:** Ongoing

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