# Visión Salinas Climate Action Plan

for the City of Salinas
Public Review Draft | March 2026

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# List of Abbreviations

| | |
|---|---|
| 3CE | Central Coast Community Energy |
| AMBAG | Association of Monterey Bay Area Governments |
| BAU | business-as-usual |
| CAP | Climate Action Plan |
| CARB | California Air Resources Board |
| CEQA | California Environmental Quality Act |
| $CH_4$ | methane |
| $CO_2$ | carbon dioxide |
| EV | electric vehicle |
| GHG | greenhouse gas |
| IPCC | Intergovernmental Panel on Climate Change |
| MPO | Metropolitan Planning Organization |
| MST | Monterey-Salinas Transit |
| MTP/SCS | Metropolitan Transportation Plan/Sustainable Communities Strategy |
| $N_2O$ | nitrous oxide |
| $NO_x$ | nitrogen oxide |
| SB | Senate Bill |
| SOI | Sphere of Influence |
| $SO_x$ | sulfur oxide |
| TAMC | Transportation Agency for Monterey County |
| VMT | vehicle miles traveled |
| ZEV | zero-emission vehicles |

# 1. Introduction

Climate change is one of the most significant challenges of our time, with impacts that reach across environmental, social, and economic systems. These impacts are already apparent in Salinas through drought conditions that threaten water supplies, extreme heat events that endanger outdoor workers, and wildfire smoke from regional fires that degrade air quality. These impacts disproportionately affect vulnerable populations, including low-income households, agricultural workers, linguistically isolated households, and residents of East Salinas and other historically disadvantaged and underserved neighborhoods.

**Salinas at a Glance**

- 23.5 square miles.
- Most populated city in Monterey County with 163,000 residents.
- Approximately 80 percent of residents identify as Latino/a/x/e.
- Agriculture is the largest economic sector in the region, estimated at $8B per year.
- Primary job center of the region.
- 52 percent of residents rent their home versus 48 percent that own.
- 83 percent of residents drive to work.

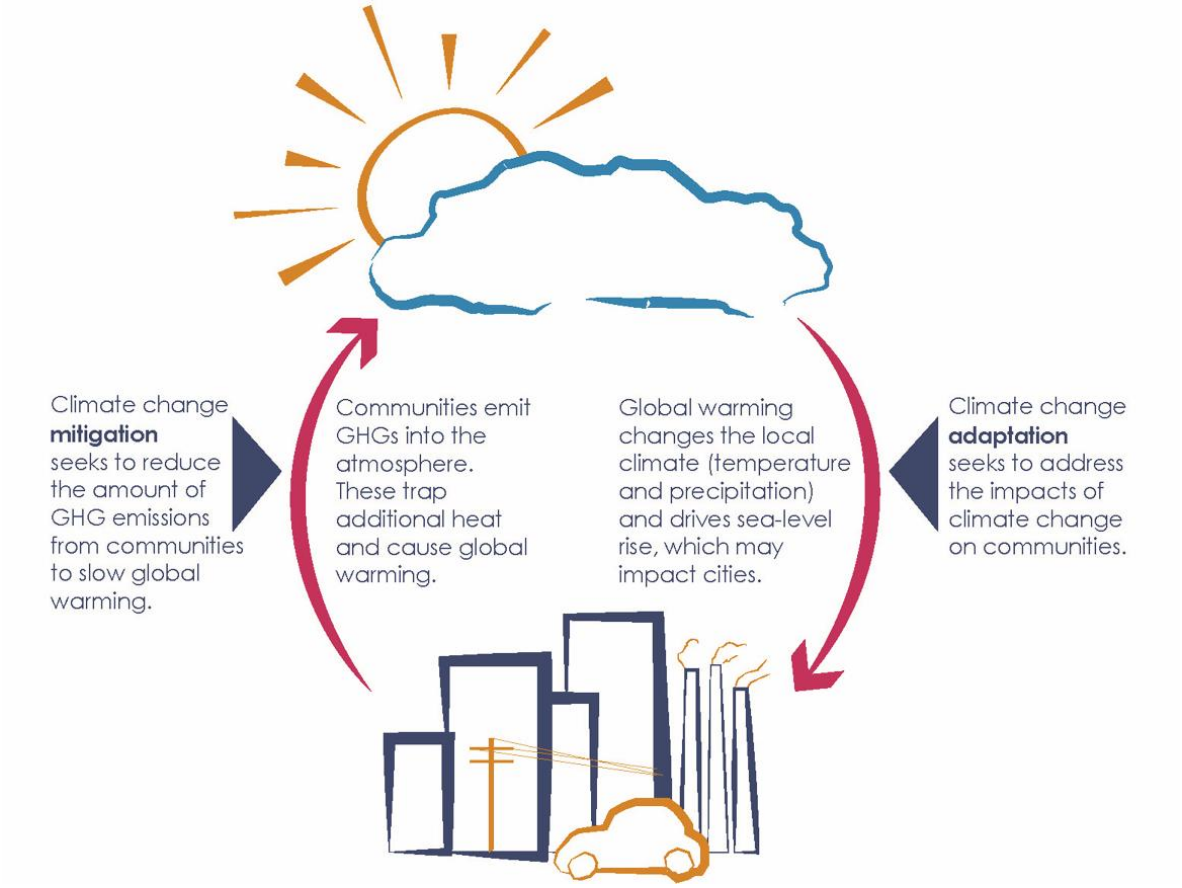
The Salinas Valley, often referred to as the "Salad Bowl of the World", has a unique relationship with climate change due to its distinct agricultural identity. Although most agricultural activity occurs outside the city limits, the City of Salinas (sometimes called just the City or Salinas) serves as an economic and community hub for the agriculture industry that drives the region's economy. This context shapes both the city's emissions profile and its vulnerability to climate impacts, particularly for community members who work in agricultural fields or processing facilities. Workers and agricultural yields are vulnerable to increasingly severe hazards, such as extreme heat and drought, which can impact Salinas' economy and create particular hardships for low-income persons and people with other economic constraints.

## 1.1 Purpose and Approach of the Climate Action Plan

The purpose of the City of Salinas Climate Action Plan (CAP) is to establish a strategic plan for both climate mitigation and climate adaptation with short- and long-term targets. For climate mitigation, the CAP reduces GHG emissions by setting reduction targets and enacting strategies to achieve these targets. The climate adaptation components of the CAP set strategies to improve the community's resilience to the effects of climate change. The CAP takes a dual approach to addressing climate change through both mitigation and

adaptation strategies (see **Figure 1**). These complementary approaches work together to create a comprehensive climate action strategy for Salinas.

## Figure 1: Climate Change Mitigation and Adaptation Relationship




### Addressing Climate Change

**Climate Mitigation** focuses on reducing the GHG emissions that cause climate change. By cutting emissions from transportation, energy use, and waste, Salinas can help slow the pace of climate change and reduce its long-term severity. Examples of climate mitigation actions include transitioning to renewable energy sources, improving energy efficiency in buildings, and encouraging sustainable transportation options like electric vehicles or public transit.

**Climate Adaptation** recognizes that some climate change impacts are already occurring and will continue even with successful mitigation efforts. Adaptation strategies prepare the community for these changes by increasing resilience to climate change-related hazards like extreme heat, drought, and wildfire smoke. This includes protecting vulnerable populations, strengthening infrastructure, and enhancing emergency preparedness and response.

The CAP establishes a pathway for the City of Salinas to:

- **Identify Sources of GHG Emissions:** The CAP inventories Salinas' community-wide GHG emissions, providing a clear understanding of the key sources and sectors contributing to climate change.
- **Set Ambitious Targets:** The CAP establishes GHG emissions reduction targets for 2030, 2040, and 2045 that align with State goals and create a framework for meaningful climate action.
- **Outline Clear Strategies:** The CAP identifies specific strategies and actions for the City, residents, businesses, and other stakeholders to reduce GHG emissions and prepare for climate change impacts.
- **Enhance Community Resilience:** The CAP identifies populations and community assets most vulnerable to climate hazards and outlines adaptation strategies to protect them.
- **Support Economic Development:** The CAP identifies opportunities to create local green jobs, reduce energy costs, and advance sustainable economic growth in Salinas.
- **Meet Regulatory Requirements**: The CAP serves as a "qualified greenhouse gas reduction plan" under the California Environmental Quality Act (CEQA), creating a streamlined approach to reduce GHG emissions in City-approved new development projects that demonstrate consistency with the CAP.

Salinas has already shown a commitment to sustainability through various initiatives, including the adoption of water conservation measures, purchasing electricity from Central Coast Community Energy (3CE), and implementing energy efficiency upgrades to municipal facilities. The CAP builds on these efforts by establishing a comprehensive, coordinated approach to addressing climate change community-wide. For details about the GHG emission reductions and performance metrics of the CAP's strategies, see **Appendix A**.

Achieving the ambitious targets established by this CAP will require participation from all sectors of the community. The City is committed to ensuring that the transition to a low-carbon future is equitable, with costs and benefits fairly distributed across the community. This means ensuring that climate strategies do not disproportionately burden low-income households, that green, low-carbon job opportunities are accessible to all residents, and that co-benefits such as improved air quality and reduced energy costs are prioritized in historically underserved communities.

Through implementation of the CAP, Salinas will join other communities throughout California and across the nation in taking meaningful steps to reduce GHG emissions and create a more sustainable, resilient future. By acting now, Salinas can minimize the impacts of climate change on current and future generations while creating a healthier, more equitable community for all residents.

## 1.2 General Plan Consistency

To ensure a coordinated, consistent, and integrated approach to addressing climate change through the City's long-range planning efforts, the City prepared the CAP concurrently with the Visión Salinas 2040 General Plan (General Plan). This CAP is consistent with the General Plan, which establishes a long-term blueprint for Salinas' growth and development through 2040. The General Plan is a comprehensive plan that addresses critical topics relevant to the community. As a part of this work, the General Plan contains themes, goals, and policies that are relevant to and implement the CAP. Such goals and policies involve reducing GHG emissions, improving climate adaptation, and addressing inequities in the built environment.

The General Plan follows a set of guiding principles that the City developed in partnership with community members. These guiding principles also inform and guide the CAP's strategies as they relate to reducing GHG emissions, improving public health, and adapting to climate-related hazards.

General Plan Guiding Principles:

**Economic Prosperity, Equity, and Diversity:** A city where all people have equitable access to prosperity through a diversified economy, jobs, and educational and training opportunities.

**Housing Opportunities for All:** A city with a diversity of housing types and affordability levels for its residents.

**Healthy and Safe Community:** A city that strives to protect and improve the personal safety, health, and welfare of the people who live, work, and visit.

**Youth are the Future:** A city where youth flourish and have equitable access to education, recreation, and a healthy urban environment.

**Collaborative, Inclusive, and Engaged Decision-Making:** A transparent and responsive City government driven by the voices of a participatory community.

**Livable and Sustainable Community:** A well-planned city with a thriving community core and commercial corridors, excellent infrastructure (streets, sewers, parks, trees and open spaces, libraries, and community facilities, etc.) that meet the unique and changing needs of the community.

**Connectivity, Access, and Mobility:** An active city with a well-connected, eco-friendly network of multi-modal streets, bikeways, greenways and trails, and effective public transportation options.

**A Community to Celebrate:** A city that celebrates, promotes, preserves, and honors the diversity, history, art, and culture of its community.

The General Plan has 11 elements, which contain the goals and policies meant to realize the plan, including implementing the goals and strategies identified in the CAP. Below is a brief description of each General Plan Element:

- The Land Use Element guides the general distribution, location, extent, and intensity of present and future land uses and describes the compatibility of the General Plan Place Types, such as residential, mixed-use, industrial, or open space and public service. Land use decisions, such as infill development, transit-oriented development, and varied housing types, can contribute to GHG emission mitigation.
- The Housing Element establishes the City's goals and policies for addressing housing challenges for all of Salinas' residents, including production, affordability at all income levels, reducing homelessness, fair housing, and more.
- The Community Design Element addresses neighborhood and urban placemaking and design, and the enhancement and conservation of the natural, historic, and aesthetic resources in Salinas that form the community's unique character.
- The Circulation Element coordinates the citywide circulation system with planned land uses and promotes non-private automobile modes of transportation, such as walking, biking, and public transit, which helps lower GHG emissions in Salinas.
- The Noise Element addresses the physiological, psychological, and economic effects of noise by providing effective strategies to reduce excessive noise and limit community exposure to loud noise sources.
- The Conservation and Environmental Safety Element plans for the protection of Salinas' natural environment and resources, identifies potential natural and human-caused hazards to the community, including the effects of climate change, and addresses

practices to increase the resilience and adaptability of residents, workers, and visitors, while improving emergency preparedness and response.

- The Open Space Element expresses community goals and identifies specific actions to protect and enhance the city's parks and recreational spaces to ensure a high-quality living environment in Salinas.
- The Health and Environmental Justice Element establish important goals and programs to address historic injustices in the community related to the built and natural environment and improve overall community health and well-being.
- The Economic Development Element supports expansion of employment opportunities through business retention and expansion, and advancement of economic prosperity for residents through workforce development and education.
- The Arts, Culture, and Youth Element establishes goals and programs related to increased youth empowerment, public art programs, and community events that celebrate Salinas' unique culture.
- The Public Safety Element addresses issues of crime, violence, and other human-caused hazards and identifies methods to provide a safe and enjoyable environment by promoting non-violent conflict resolution, effective emergency response, and design techniques that support safety.

In developing the CAP, the City analyzed GHG emissions and climate resilience strategies for both the current city limits and the Sphere of Influence (SOI). This combined area, known as the planning area for both the General Plan and the CAP, represents the potential expanded area of Salinas' boundary if all growth areas are annexed and incorporated into the city limits as anticipated by the General Plan. While the GHG emissions data in this CAP is based on activities within the city limits, the CAP was developed with the intent to apply to the SOI as well, and allows the total planning area to achieve the GHG emission reduction targets established by the CAP. For details about existing and forecasted GHG emissions and reduction activities in the SOI, see **Appendix B**.

## 1.3 State and Regional Programs and Policies

The City of Salinas developed the CAP within the context of several State and regional laws, policies, and initiatives that address or relate to climate change. This regulatory framework and backdrop has evolved over the past several decades and continues to develop as governments at all levels address the urgent challenge of climate change. The CAP aligns with existing regulations and requirements, ensuring a coordinated approach to reducing GHG emissions and enhancing climate change resilience. In addition to the regulatory requirements, CEQA allows local governments to streamline the analysis of GHG emissions from new development by adopting a qualified GHG reduction plan, like this CAP. In so doing, local governments ensure consistent, equitable standards for climate action at the project level that further State goals.

### STATE CLIMATE ACTION AND REGULATION

The State of California (State) has been ambitious in fighting climate change through a series of increasingly progressive GHG emissions reduction goals and targets supported by extensive State programs and funding ongoing and aggressive reductions in GHGs from all sectors. Building on prior reduction goals, current State policy is to reduce GHG emissions 85 percent below 1990 levels and to achieve carbon neutrality or "net-zero" GHG emissions by 2045. Local governments may establish their own reduction targets that demonstrate consistency with State targets.

California has been a national and global leader in climate policy, enacting comprehensive legislation to reduce GHG emissions and prepare for climate change impacts. The State's ambitious approach is the foundation for Salinas' GHG emissions reduction targets and strategies. The following are key laws, regulations, and policies that set forth California's approach to mitigating climate change.

#### Executive Order S-03-05 and Assembly Bill 32 (2006) - California Global Warming Solutions Act

Assembly Bill (AB) 32 established California's first statewide GHG emission reduction target, requiring the state to reduce emissions to 1990 levels by 2020. The California Air Resources Board's (CARB) first Climate Change Scoping Plan, adopted in 2008, provided a framework for achieving the state's 2020 target and recognized local governments as essential partners in achieving California's climate goals. Local governments are tasked with tracking and reporting their GHG emissions in support of the State's reduction goal.

## Executive Order B-30-15 and Senate Bill 32 (2016)

As California approached its 2020 target, attention turned to more ambitious mid-term goals. In 2015, Governor Brown signed Executive Order B-30-15, which set a new statewide GHG reduction target of 40 percent below 1990 levels by 2030.

The following year, this target was codified into law with the passage of Senate Bill (SB) 32, which requires California to reduce GHG emissions 40 percent below 1990 levels by 2030. This ambitious target necessitates accelerated efforts across all sectors and levels of government, including local jurisdictions like Salinas.

## Executive Order B-55-18 and Assembly Bill 1279 (2022)

Looking toward the mid-century, Governor Brown issued Executive Order B-55-18 in 2018, establishing a goal of carbon neutrality for California by 2045, with net-negative emissions thereafter. Carbon neutrality means that all GHG emissions produced are balanced by an equal amount of GHG removal, or sequestration, resulting in net-zero emissions.

In 2022, the Legislature passed, and Governor Newsom signed AB 1279, the California Climate Crisis Act, which codified these ambitious goals into State law. AB 1279 requires California to reduce GHG emissions 85 percent below 1990 levels by 2045 and achieve statewide carbon neutrality by that same year. This long-term goal guides the CAP's 2045 emission reduction target and strategies.

## California Climate Change Scoping Plan

The California Climate Change Scoping Plan, developed by CARB, outlines the State's strategy for achieving its climate goals. The Scoping Plan is updated periodically, with the most recent update completed in 2022.

The 2022 Scoping Plan focuses on achieving carbon neutrality through extensive GHG reductions across all sectors, including energy, transportation, industry, agriculture, and natural and working lands. It includes a comprehensive suite of actions to transition away from fossil fuels while building a clean energy economy that benefits all Californians.

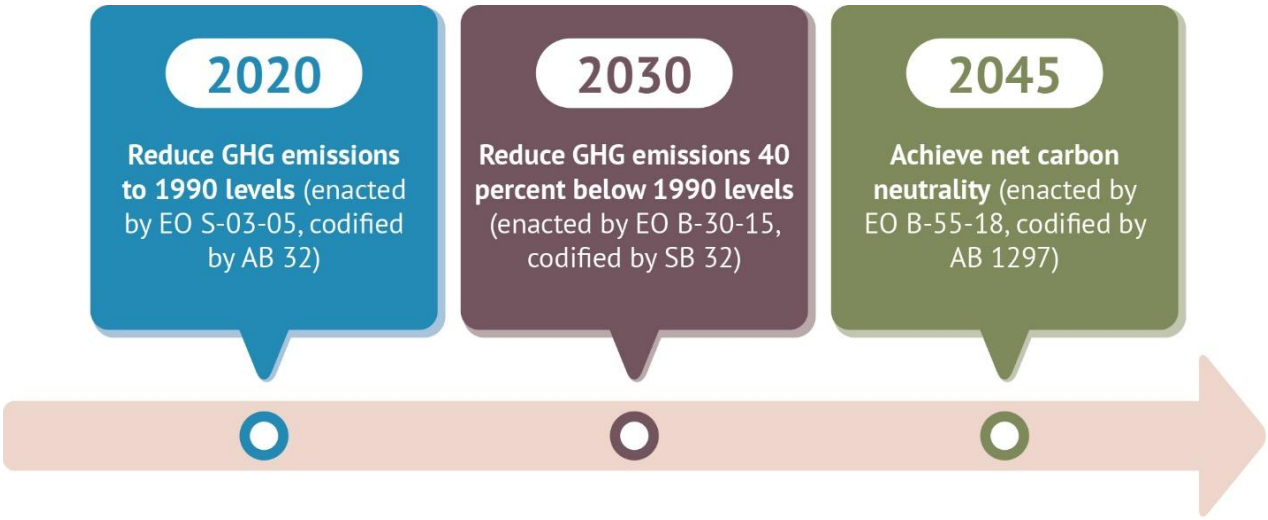
The Scoping Plan identifies several priority areas for local government action, including:

- Building decarbonization through electrification of natural gas-powered appliances.
- Transportation electrification and vehicle-miles traveled (VMT) reduction.
- Organic waste diversion and healthy soils practices.

- Carbon sequestration on natural and working lands.
- Water conservation and resilience.

The Salinas CAP incorporates feasible GHG reduction strategies from the 2022 Scoping Plan to ensure alignment with State goals and maximize effectiveness of local actions. See **Figure 2** for a summary of California's emission reduction goals for 2020, 2030, and 2045.

### Figure 2: California's GHG Emission-Reduction Goals




## CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA requires evaluation of a project's potential environmental impacts, including impacts related to GHG emissions. CEQA Guidelines, Section 15183.5, allows jurisdictions to streamline the analysis of GHG emissions in the environmental review of individual projects by developing a qualified GHG reduction plan. The Salinas CAP satisfies the requirements for a qualified GHG reduction plan under Section 15183.5 by:

- Quantifying existing and projected GHG emissions within the planning area through 2045 (Chapter 2: Climate Change in Salinas)
- Establishing GHG reduction targets for 2030, 2040 and 2045 that are based on substantial evidence and consistent with State targets (Chapter 3: GHG Emissions Reduction Strategy)
- Identifying and analyzing the GHG emissions resulting from specific actions and categories of actions (Chapter 3)
- Specifying measures and implementing actions that will achieve the targets (Chapter 3)

- Establishing a mechanism to assess implementation progress and amend the CAP as needed ensure continued alignment with State goals (Chapter 4: Implementing the CAP)

The CAP will be reviewed by the City Council and adopted through a public hearing process, following environmental review under CEQA. The environmental review of the CAP is included in the 2040 General Plan Environmental Impact Report (EIR).

As provided in CEQA Guidelines, Section 15183.5, when a local government adopts a qualified GHG reduction plan, subsequent projects that comply with the plan may streamline their CEQA review process for GHG emissions. Rather than conducting a detailed analysis of project-level GHG emissions and mitigation measures, these projects can demonstrate consistency with the applicable CAP strategies through a consistency checklist. New development projects that rely on the CAP to streamline their CEQA review process will be required to maintain consistency with the latest version of the CAP and applicable strategies.

The Salinas CAP meets all the requirements of a qualified GHG reduction plan under CEQA Guidelines Section 15183.5. The CAP includes a consistency checklist to determine if a project is consistent with the CAP and can use these streamlining provisions. By creating a qualified GHG reduction plan, the City not only streamlines future development processes, but also establishes consistent, equitable standards for climate action that benefits the entire community while furthering the State's goals. This approach helps ensure that all new development, regardless of size or location within Salinas, contribute to climate action goals in a fair and transparent manner, while providing developers with clear expectations.

## REGIONAL PROGRAMS AND POLICIES

Several regional programs and policies influence climate action in Salinas and provide opportunities for collaboration with neighboring jurisdictions and regional agencies.

### Central Coast Community Energy

Central Coast Community Energy (3CE) is a public agency that provides electricity to communities in the Monterey Bay region as an alternative to investor-owned utility companies. 3CE began serving Salinas in March 2018, providing electricity from renewable and carbon-free sources. As a community choice energy provider, 3CE procures electricity for customers while the investor-owned utility (Pacific Gas and Electric Company, PG&E) continues to deliver the power, maintain the grid, and provide customer service and billing. 3CE offers two service options: 3Cchoice (the standard service) and 3Cprime (100 percent

renewable energy). By default, all electricity customers in Salinas are enrolled in 3Cchoice, though they can opt to upgrade to 3Cprime or return to PG&E service.

The City's partnership with 3CE has helped to significantly reduce GHG emissions associated with electricity use in Salinas since 2005. In 2019, both 3CE and PG&E provided electricity with relatively low carbon intensity, contributing to decreased emissions from the electricity sector. 3CE has a goal of providing 100 percent clean and renewable energy by 2030, which will further reduce Salinas' carbon footprint.

## Association of Monterey Bay Area Governments

The Association of Monterey Bay Area Governments (AMBAG) serves as the Metropolitan Planning Organization (MPO) and Council of Governments for Monterey, San Benito, and Santa Cruz Counties. AMBAG has supported climate action planning in the region by:

- Developing community-wide and local government operations GHG inventories for member jurisdictions, including Salinas.
- Creating the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), which addresses transportation-related GHG emissions in the region.
- Administering residential and commercial energy efficiency resources through their AMBAG Energy Watch Program and providing technical assistance to local governments.

## Monterey-Salinas Transit

Monterey-Salinas Transit (MST) provides public transportation services throughout Monterey County, including Salinas. MST is working to reduce transportation-related GHG emissions by:

- Transitioning to a zero-emission bus fleet.
- Improving transit service to provide alternatives to single-occupancy vehicle travel.
- Implementing the SURF! Busway and Bus Rapid Transit project to improve transit connectivity between Marina, Seaside, and Sand City.

### Transportation Agency for Monterey County

The Transportation Agency for Monterey County (TAMC) is the regional transportation planning agency responsible for developing transportation projects and programs to address mobility, safety, and accessibility needs in Monterey County. TAMC supports climate action through:

- The Go831 Smart Commute program, which promotes carpooling, vanpooling, transit use, biking, and walking.
- Active transportation projects that enhance pedestrian and bicycle infrastructure.
- Electric vehicle (EV) planning and infrastructure development.

### Salinas Valley Solid Waste Authority

The Salinas Valley Solid Waste Authority (also known as Salinas Valley Recycles) manages solid waste disposal and recycling programs in Salinas and southern Monterey County. Salinas Valley Recycles supports the implementation of SB 1383, California's Short-Lived Climate Pollutant Reduction law, which requires a 75 percent reduction in organic waste disposal by 2025 to reduce emissions of methane, a GHG, from landfills.

## 1.4 Climate Action in Salinas

The City of Salinas has engaged in various sustainability and climate action initiatives over the years, demonstrating a growing commitment to environmental stewardship and climate resilience. This CAP builds on these existing efforts, expanding their scope and effectiveness while establishing a comprehensive framework for future action.

## ENERGY AND EMISSIONS REDUCTION

In March 2018, Salinas joined 3CE, formerly Monterey Bay Community Power. The switch to 3CE and the increase in electricity from renewable supplies is one of the most impactful climate actions the City has taken to date, contributing to a 98 percent reduction in GHG emissions from electricity use between 2005 and 2019. For more information on the inventories of GHG emissions in 2005 and 2019, see *Section 2.3: GHG Inventories and Forecast* and *Appendix A: GHG Inventory and Forecast Technical Appendix*.

The City has also implemented energy-efficiency measures in municipal facilities and infrastructure, such as installing LED bulbs in streetlights, which reduce energy consumption and associated emissions. These efforts not only reduce the City's carbon footprint but also demonstrate leadership by example to the broader community.

**Water Resilience in Salinas**

Water security is a critical concern for Salinas. The city relies solely on groundwater and obtains its water from the Salinas Valley Groundwater Basin, which includes several subbasins experiencing overdraft conditions. This has led to seawater intrusion into the groundwater basin, threatening water quality and long-term supply. Water conservation efforts have become increasingly important as drought conditions, intensified by climate change, put additional stress on these water resources.

## WATER CONSERVATION

Salinas has implemented various water conservation measures in response to California's recurring drought conditions, which have been intensified by climate change. The City's conservation measures preserve a vital resource and reduce energy consumption associated with water pumping, treatment, and distribution, thus indirectly reducing GHG emissions. These conservation efforts include a water conservation ordinance that establishes restrictions on water use during different drought stages.

The City also participates in the Water Awareness Committee of Monterey County, which promotes water conservation through education and outreach programs. These efforts help residents and businesses understand the importance of water conservation and provide them with tools and resources to reduce water use.

## URBAN GREENING AND TREE PLANTING

Trees play an important role in capturing carbon dioxide, providing shade to reduce urban heat island effects, and improving air quality. Salinas has recognized the value of its urban forest and has taken steps to maintain and expand it.

With a grant from the California Department of Forestry and Fire Protection (CAL FIRE), the City prepared an Urban Forest Management Plan in 2023, which included an assessment of the existing tree canopy coverage and a plan for where to plant 300 new trees across Salinas. The assessment found that Salinas had a canopy cover of 11.5 percent, which is relatively low compared to other cities in California.[12] This low percentage of canopy coverage causes Salinas' developed areas to retain more heat than the surrounding land, particularly in neighborhoods with higher housing density and fewer parks or green spaces. The uneven distribution of tree cover across neighborhoods has created disparities in exposure to extreme heat. The 2023 Urban Forest Management Plan found that many of the city's trees were in poor condition, making them vulnerable to pests and diseases. The urban canopy is also vulnerable to climate-related stressors. For example, in 2017, Salinas experienced a severe storm with wind gusts reaching 71 miles per hour, resulting in the loss of approximately 650 trees. This loss was in addition to approximately 350 trees lost due to drought in preceding years. Since this assessment, and with funding from the CAL FIRE grant, the City has partnered with community organizations like Sustainable Salinas to plant trees throughout the community, with a goal of expanding the tree canopy coverage to 15 percent over the next 20 years.

## STORMWATER MANAGEMENT AND GREEN INFRASTRUCTURE

Salinas has developed several plans and initiatives to improve stormwater management and incorporate green infrastructure, which contribute to climate resilience. The City's Stormwater Development Standards, updated in 2021, focus on low-impact development designs and implementation of Stormwater Control Measures (SCMs) for urban stormwater runoff management. The City's 2019 National Pollutant Discharge Elimination System (NPDES) Phase 1 Stormwater Permit requires implementation of best management practices to improve watershed conditions, water quality, and reduce pollutant discharge into the local water bodies. These measures help manage the increased stormwater runoff that results from urban development and intense rainfall events associated with climate change.

The City has also mapped areas with potential for stormwater infiltration and recharge, identifying opportunities for enhanced stormwater management. The City is developing a draft Green City Master Plan that addresses multibenefit green infrastructure projects and their locations throughout the city. The City's Stormwater Master Plan was also updated in October 2024 to evaluate the condition of the City's stormwater infrastructure and provide potential projects to increase the system capacity to prevent flooding. These efforts contribute to climate resilience by reducing flood risk, enhancing stormwater infiltration, and promoting groundwater recharge, which are particularly important in the context of both increased drought conditions and intermittent intense rainfall events.

## SUSTAINABLE TRANSPORTATION

Transportation is the largest source of GHG emissions in Salinas. However, the City has taken steps to promote alternatives to single-occupancy vehicle travel. Salinas has worked with regional partners to improve public transit service, enhance bicycle and pedestrian infrastructure, and support transit-oriented development.

Upcoming regional transportation projects affecting Salinas include the Capitol Corridor Extension to Salinas, which is a planned Amtrak extension of passenger rail service from San Jose to Salinas and includes the revitalization of the downtown Salinas train station. The AMBAG 2040 Metropolitan Transportation Plan and Sustainable Communities Strategy also outline expanded express or commuter-based service in Monterey County, including Salinas. Additionally, the Marina-Salinas Multimodal Corridor is a multi-jurisdictional project developed in response to the need for a regional route through the former Fort Ord area. The future corridor is expected to increase roadway capacity by prioritizing high-quality transit, bicycling, and walking as viable alternatives to driving. The City also continues to support the implementation of the SURF! Busway and Bus Rapid Transit project, which will improve transit connectivity from the Salinas Valley, including Salinas, to Downtown Monterey and several points in between with the creation of a new six-mile, bus-only roadway.

Additionally, Salinas has collaborated with the Transportation Agency for Monterey County and Ecology Action on the Safe Routes to School Program, which promotes walking and biking to school. These transportation initiatives not only reduce GHG emissions but also provide co-benefits such as improved air quality, enhanced public health through active transportation, and increased equity by providing more transportation options for residents who do not own vehicles.

### COMMUNITY ENGAGEMENT AND EDUCATION

Education and community engagement are essential components of effective climate action. The City has worked with various partners to provide information and resources on sustainability topics, including water conservation, energy efficiency, and waste reduction to community members. For example, the City has partnered with the Central Coast Greywater Alliance, Water Awareness Committee, and Monterey Bay Friendly Landscaping to promote water-efficient practices. Similarly, collaborations with 3CE have helped educate residents and businesses about renewable energy options and energy efficiency programs. These educational efforts help build community capacity for climate action and ensure that residents and businesses have the knowledge and resources they need to participate in GHG reduction efforts.

## 1.5 Community Involvement in Plan Preparation

The City developed the CAP in partnership with community stakeholders. Feedback from the community informed the City's analysis of existing GHG emission sources, the vulnerabilities associated with climate change-related hazards and the strategies to improve sustainability and adaptation in Salinas. In the initial phases of the planning process, the City hosted a virtual workshop to orient community members to the CAP project, share initial results of the technical analyses, and begin brainstorming GHG reduction strategies. Later in the CAP strategy development phase of the project, the City hosted two pop-up events and one virtual workshop to gather input on sustainability and GHG reduction strategies. The City also published an online survey to understand community members' experience with climate change-related hazards and gather input on potential adaptation and GHG mitigation strategies. As the CAP was prepared in tandem with the General Plan Update, the City also gained relevant community insights from engagement activities for the General Plan Update. Community members had a strong interest in improving air quality and public health, particularly in response to regional wildfire smoke and agricultural pesticide use. Community members emphasized the need for better public transit connections and safer infrastructure for walking and biking to support lower-emission travel choices. Equity and community resilience were also recurring themes, with residents expressing a desire for financial assistance programs to help them purchase EVs and e-bikes. Community members noted that they are already taking action to reduce GHG emissions by switching to hybrid or EVs, walking and biking more, working from home, purchasing more efficient appliances, and reducing meat consumption.

## 1.6 Use and Organization of the Plan

The effects of climate change are already apparent in Salinas and will intensify without focused, equitable action to reduce GHG emissions and adapt to changing conditions. The CAP is intended for residents, workers, business owners, City staff, and policymakers to provide information about the science of climate change, to highlight what the City has already done to address climate change, and to establish a road map for further GHG emissions reductions and advances in community resilience. The City of Salinas will use this document to help set climate action planning priorities, allocate resources to the communities and assets that are most vulnerable to climate hazards, and monitor and evaluate progress toward GHG emissions-reduction goals and increases in community resilience. The CAP provides guidance for integrating climate considerations into municipal operations, programs, and planning efforts, ensuring that future decisions align with the City's climate objectives. City departments can refer to the implementation chapter to identify their roles and responsibilities in advancing specific strategies, along with timelines and potential funding sources.

Residents, workers, and business owners can use the CAP to better understand their personal and community-level vulnerability to the effects of climate change and find guidance on how to improve their climate resiliency and reduce their own GHG emissions. Indeed, many of the actions outlined in the CAP—such as conserving energy, reducing water use, and driving less—not only help address climate change but can also save money and improve quality of life. The CAP identifies programs and resources available to support these efforts, making it easier for community members to take meaningful action.

Businesses play a crucial role in reducing community-wide emissions and building resilience. The CAP outlines opportunities for businesses to implement management practices that align with climate goals while potentially reducing operational costs through energy efficiency, water conservation, waste reduction, and sustainable transportation measures. By embracing these strategies, businesses can demonstrate environmental leadership while contributing to community-wide goals.

This CAP guides new development under the City's permitting authority by introducing strategies and implementation actions that will reduce GHG emissions consistent with the reduction targets established under this CAP. Because these targets are consistent with State reduction goals, the CAP is a qualified GHG reduction plan under CEQA, which means that future development projects requiring environmental review under State law can streamline their GHG impact analyses by demonstrating consistency with the CAP. This streamlining can save time and money during the environmental review process by

allowing developers to reduce the number of steps involved in the environmental impact assessment process. Developers, landowners, planners, and others should familiarize themselves with the strategies in the CAP and comply with these strategies when constructing new developments. The CAP includes a consistency checklist to help determine if a project is consistent with the CAP.

Community organizations and educational institutions can support CAP implementation by incorporating climate education into their programs, organizing sustainability-focused events, and collaborating with the City on specific strategies. These organizations help build community interest in climate action and ensure that initiatives are inclusive and equitable.

The CAP is intended to be a document that is updated regularly and evolves as technology advances, new information becomes available, and initial strategies are implemented. Regular monitoring and reporting on progress will help track the effectiveness of the CAP strategies and identify areas where adjustments may be needed. Community members are encouraged to stay engaged with the implementation process through participation in related programs, attending public meetings, and providing feedback on climate initiatives.

By working together, the City and community can create a more sustainable, resilient, and equitable Salinas for current and future generations. The CAP provides a shared vision and roadmap for this collaborative effort, empowering all stakeholders to contribute to meaningful climate action.

The remainder of this CAP covers the following topics:

- **Chapter 2: Climate Change in Salinas** explains the science of climate change and its local impacts. It also presents the results of the City's GHG emissions inventory and forecast, showing Salinas' current GHG emissions profile and projected future emissions under a "business-as-usual" scenario. This chapter also summarizes findings from the vulnerability assessment, identifying the populations, infrastructure, and community assets most vulnerable to climate-related hazards.
- **Chapter 3: GHG Emissions Reduction Strategy** outlines the City's GHG reduction targets for 2030, 2040, and 2045, and presents strategies to reduce emissions from key sectors, including energy, transportation, waste, and water. It shows how existing State and local efforts have already reduced emissions and presents new strategies that will help Salinas achieve its targets. This chapter also identifies the City's strategy to adapt to changing climate conditions and potential natural hazards.

- **Chapter 4: Implementing the CAP** details how the City will put the plan into action. It includes information on implementation timeframes, responsible parties, monitoring procedures, and potential funding sources. This chapter also describes how the City will track progress toward its climate goals and report to the community.
- **Appendices A** through **C** provide additional technical details on the methodologies and analyses that inform the CAP, including the GHG inventory and forecast, strategy quantification, and vulnerability assessment.

## 1.7 Equity Framework

**Equity** is a foundational principle of Salinas' CAP. The City recognizes that climate change impacts do not affect all community members equally, and that historical patterns of development, investment, and resource allocation have created disparities in vulnerability and adaptive capacity. This inequitable distribution of climate impacts is fundamentally an environmental justice issue.

**Environmental justice** is the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.[1] It recognizes that some communities have historically faced greater environmental burdens while having less access to decision-making processes or resources for protection and recovery. Fairness means that the benefits of a healthy environment should be available to everyone, and the burdens of pollution or the negative impacts from hazards should not be borne by sensitive populations or communities that already are experiencing adverse effects from these conditions. In Salinas, socioeconomic factors such as income, language barriers, housing quality, and access to transportation and healthcare influence vulnerability to climate hazards. The CAP prioritizes protecting the most vulnerable populations through strategies that promote both climate resilience and social equity.

Building on environmental justice principles, this CAP adopts an equity framework that:

1. Prioritizes investments and programs in communities that have historically been underserved, including East Salinas and neighborhoods with higher proportions of low-income households, communities of color, and linguistically isolated households.

[1] California Government Code, Section 65040.12, subd. (e)

2. Ensures that climate actions do not inadvertently burden vulnerable populations through increased costs, displacement, or other unintended consequences.
3. Creates meaningful opportunities for community participation in climate action, particularly for residents who face barriers to engagement such as language, work schedules, childcare needs, or lack of transportation.
4. Recognizes the intersectionality of climate vulnerability with other social and economic challenges, including housing affordability, transportation access, food security, and environmental health.
5. Builds capacity within vulnerable communities to prepare for, respond to, and recover from climate hazards.

The strategies in this CAP reflect this equity framework by including specific actions to address the needs of vulnerable populations, creating co-benefits that address multiple community priorities, and establishing metrics to track progress toward more equitable outcomes.

# 2. Climate Change in Salinas

## 2.1 Climate Science

### WHAT IS CLIMATE CHANGE?

Climate is the long-term average of weather conditions, such as temperature and precipitation. While it is normal for Earth's climate system to experience long-term shifts, human activity is causing global climate to change at a much more rapid pace than in the past.

Human-caused climate change is largely attributable to the burning of fossil fuels, which causes GHGs to build up in the atmosphere and trap heat close to the Earth's surface, a phenomenon known as the greenhouse effect. Most GHGs are naturally occurring gases, such as water vapor, carbon dioxide ($CO_2$), methane ($CH_4$), and nitrous oxide ($N_2O$), that absorb heat radiated from the Earth's surface. Some GHGs can persist in the atmosphere and trap heat for thousands of years once they are emitted.

As the levels of GHGs in the atmosphere increase because of human activity, more heat is trapped, increasing the temperature of the Earth's surface at an unprecedented rate. Because Earth's climate system is driven by the movement of heat in the atmosphere and in the oceans, more heat creates shifts in the global climate system, causing climate change. The effects of climate change vary in different geographic locations, and often include significant changes to temperatures, precipitation patterns, and storm activity.

Human activities that release GHGs include burning fossil fuels for transportation, electricity generation, heating and cooling buildings, and industrial processes. Deforestation and land use changes also contribute to GHG emissions by reducing the Earth's capacity to remove carbon dioxide from the atmosphere through photosynthesis. Agricultural practices, including livestock production and the use of fertilizers, release methane and nitrous oxide, which are more potent GHGs than carbon dioxide.

The Intergovernmental Panel on Climate Change (IPCC), which represents the global scientific consensus on climate change, has concluded that human influence on the climate system is clear and that recent climate changes have had widespread impacts on human and natural systems. According to the IPCC, limiting global warming to well below 2 degrees Celsius (°C)/35.6 degrees Fahrenheit (°F) above pre-industrial levels, and preferably to 1.5°C (34.7°F), would significantly reduce the risks and impacts of climate

change.[3] Achieving this goal requires immediate, substantial and sustained reductions in GHG emissions through coordinated action at global, national, regional, and local levels.

## CLIMATE CHANGE IN CALIFORNIA

In California, observations of the climate have shown several concerning trends:

1. A trend toward warmer temperatures with an increase in extremely hot days and nights. Average annual temperatures in California have increased by about 1.8 degrees Fahrenheit (°F) since 1895, with the rate of warming accelerating since the mid-twentieth century.[4] Heat waves are becoming more frequent and more intense, posing risks to public health, agriculture, and infrastructure.
2. An increase in the area burned by wildfires. Climate change is extending wildfire season and increasing the frequency and severity of wildfires in California. Higher temperatures, earlier snowmelt, and drought conditions create drier vegetation and increase fire risk. These larger, more frequent wildfires threaten the destruction of entire communities, impact air quality, and damage ecosystems.[5]
3. A smaller fraction of precipitation falling as snow. As temperatures warm, more precipitation falls as rain rather than snow, reducing the Sierra Nevada snowpack that serves as a critical natural water storage system for California.[6]
4. An increase in frequency of drought and an increase in consecutive dry years. California has experienced several prolonged droughts in recent decades, with the 2012-2016 drought being one of the most severe on record. Climate change is expected to increase the frequency and intensity of droughts, straining water resources and adversely affecting agriculture, ecosystems, and communities.[7]
5. Sea level rise is expected to continue to increase flooding and erosion on beaches, bluffs, and cliffs. California's coastline is already experiencing sea level rise, which threatens coastal communities, infrastructure, and ecosystems. Sea levels along the California coast have risen by about eight inches over the past century, and the rate of rise is accelerating. In areas near the coast, sea level rise can also cause emergent groundwater closer to the surface, potentially causing flooding from below in low-lying areas.[8] This can occur even in areas that are not directly next to the shoreline. Rising water tables can also cause saltwater intrusion in freshwater underground aquifers, which are critical for some communities' water supply.

These effects of climate change will affect economic systems throughout California, including in Salinas. To refrain from mitigating action is costly and risky; the California Fourth Climate Change Assessment estimates that taking no action to address the potential impacts of climate change will lead to economic losses of tens of billions of dollars per year in direct costs and expose trillions of dollars of assets to collateral risk.[9]

### CLIMATE CHANGE IN SALINAS

Salinas is experiencing climate change impacts that are consistent with broader regional trends but also reflect its unique geographic and socioeconomic context. The city's location in the Salinas Valley, its agricultural economy, and its demographic and socioeconomic composition all influence how climate change affects the community. Salinas is particularly vulnerable to several climate-related hazards, including extreme heat, drought, wildfire smoke, flooding, and agricultural and ecosystem pests. These hazards pose significant risks to vulnerable populations, including outdoor workers, low-income communities, communities of color, and linguistically isolated households, who often face greater exposure to climate risks and have fewer resources to prepare for, respond to, and recover from climate-related events.

The interconnected nature of these climate risks requires a comprehensive approach to both mitigation (reducing GHG emissions) and adaptation (preparing for climate impacts). The strategies outlined in this CAP address both dimensions, with particular attention to protecting the most vulnerable populations and critical economic sectors in Salinas. Detailed information about specific climate hazards and their impacts is provided in the *Climate Hazards Affecting Salinas* section below.

## 2.2 Vulnerability Assessment

### METHOD AND APPROACH

The City of Salinas prepared a Climate Change Vulnerability Assessment (**Appendix C** to this CAP) to identify who and what in the community are most at risk from hazards related to climate change. This assessment serves as a foundation for developing adaptation and resilience strategies in the CAP and policies in the General Plan Safety Element.

The Vulnerability Assessment followed the four-step process recommended in the California Adaptation Planning Guide, as shown in **Figure 3** and described here:[10]

1. **Identify Exposure:** The first step involved identifying the climate hazards that may affect Salinas and understanding how these hazards are expected to change in the future due to climate change. This step included reviewing the City's existing hazards, describing historical hazard events, analyzing projected future changes in hazard conditions, and mapping hazard-prone areas.
2. **Analyze Sensitivity and Potential Impacts:** The second step assessed how community populations, assets, and services might be affected by each climate hazard. Sensitivity is the degree to which changing climate conditions affect a population, community asset, or service. Impacts are the effects of a climate hazard combined with sensitivity.
3. **Evaluate Adaptive Capacity:** The third step involved assessing the ability of populations and assets to adjust to potential damage from climate hazards, take advantage of opportunities, or respond to the impacts of climate change. The assessment considered existing programs, policies, and resources that improve resilience.
4. **Conduct Vulnerability Scoring:** The final step combined the information from the previous steps to assess overall vulnerability. Following the process outlined in the California Adaptation Planning Guide, the City scored impact and adaptive capacity for each population and asset affected by each hazard on a scale of V1 (low priority) to V5 (high priority) to identify vulnerability priorities.

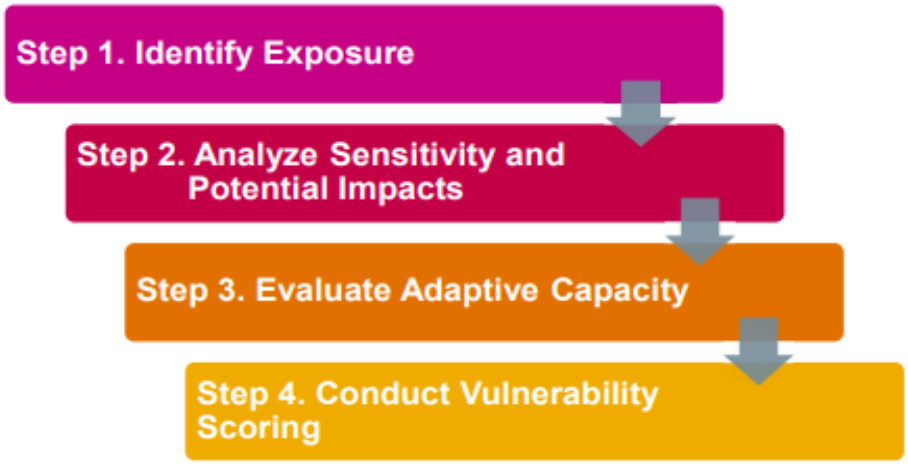
**What is Vulnerability?**

**Vulnerability** is defined as exposure of human life and property to damage from natural and human-made hazards. Climate vulnerability describes the degree to which natural, built, and human systems are at risk of exposure to climate change impacts.

**Impact** is a specific negative result of a climate change effect, determined by sensitivity and exposure.

**Adaptive capacity** is the ability to cope with climate impacts. Communities with high impact and low adaptive capacity are most vulnerable to climate change hazards.

**Figure 3: California Adaptation Planning Guide Vulnerability Assessment Method**




The Vulnerability Assessment analyzed 9 climate hazards, 23 population groups, and 41 community assets to determine how climate change may harm the community and which populations and assets of Salinas are most vulnerable. These hazards, populations, and assets were identified through consultation with City staff and review of relevant planning documents, including the Draft 2022 Monterey County Multi-Jurisdictional Hazard Mitigation Plan. For complete vulnerability scores for all populations and assets, see **Appendix C**: *Vulnerability Assessment Appendix*.

## CLIMATE HAZARDS AFFECTING SALINAS

The Vulnerability Assessment identified nine distinct climate hazards that pose threats to Salinas:

**Agricultural and Ecosystem Pests:** The health and productivity of natural ecosystems and farmland are affected by pests whose abundance, range, and periods of activity may be enlarged by climate change. As temperatures warm, pests can expand their ranges, accelerate their life cycles, and increase their population sizes. While much of Salinas' agricultural activity is outside City limits, impacts to agriculture in the surrounding Salinas Valley have significant economic and social implications for the community.

**Drought:** Drought occurs when conditions are drier than normal for an extended period, making less water available for people and ecosystems. Salinas obtains its water from the Salinas Valley Groundwater Basin, including the 180/400-Foot Aquifer, Eastside Aquifer, Langley Area, Monterey, and Pajaro Valley Subbasins. The 180/400-Foot Aquifer Subbasin and the Pajaro Valley Subbasin are both in a condition of critical overdraft. Droughts can lead to increases in groundwater pumping, which can threaten reliable groundwater sources and lead to saltwater intrusion into the aquifers. California's recurring drought conditions affect water availability for residential, commercial, and agricultural uses.

**Extreme Heat and Warm Nights:** Extreme heat occurs when temperatures rise significantly above normal levels, which in Salinas is 90.4 degrees Fahrenheit. Warm nights occur when minimum temperatures remain significantly above normal levels (59 degrees Fahrenheit in Salinas) during nighttime hours. Historically, Salinas has experienced about three extreme heat days and five warm nights per year. By the end of the century, Salinas is projected to experience an average of 15 extreme heat days and 102 warm nights per year (see **Figures 4** and **5**). Extreme heat can cause heat-related illnesses and exacerbate respiratory and cardiovascular conditions.

**Figure 4: Observed and Projected Extreme Heat Days in Salinas[2]**

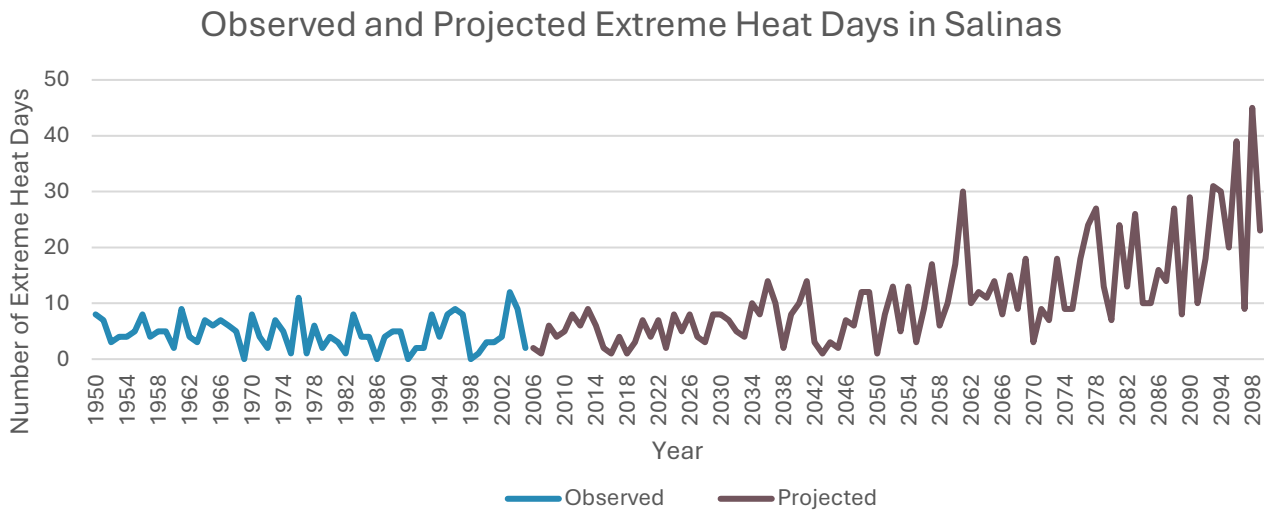
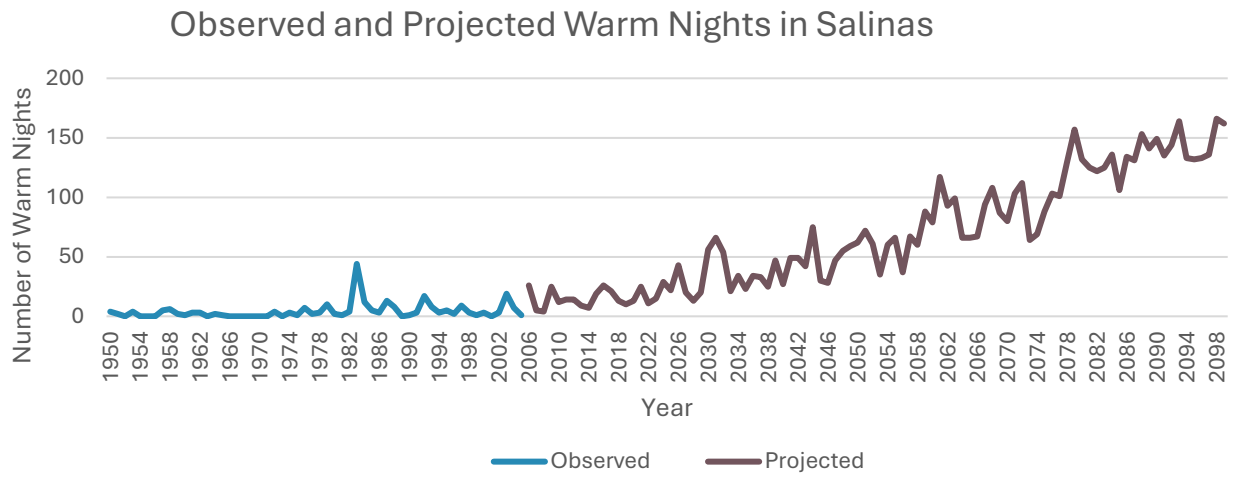



**Figure 5: Observed and Projected Warm Nights in Salinas[3]**




[2] The Cal-Adapt database at time of writing uses Representative Concentration Pathways (RCPs) to project future conditions. The projections listed in this report use RCP 8.5, which assumes global emissions continue to increase at least until the end of century, which is consistent with the IPCC Sixth Assessment Report.

[3] **Figures 4** and **5** use observed and projected data. Observed data from 1950 to 2005 is from the Cal-Adapt database and observed data from 2006 to 2023 is from the nearest National Weather Service weather stations. Projected data from the Cal-Adapt database. Due to the different database sources, the observed and projected data may not match.

**Human Health Hazards:** Human health hazards include bacteria, viruses, parasites, and other organisms that can cause diseases in people. Climate-related human health hazards are usually diseases carried by animals considered pests, such as mice and rats, mosquitoes, and ticks. As the climate changes, warmer temperatures earlier in the spring and later in the winter allow these disease vectors to be active for longer periods, widening the window for disease transmission.

**Inland Flooding:** Inland flooding occurs when there is too much water on the ground to be carried away by drains or creeks or to soak into the soil. Salinas has several creeks that flow through the city, including Gabilan, Natividad, Santa Rita, and Alisal Creeks, as well as the Reclamation Ditch 1665. All these waterways have been listed as "impaired" by the State Water Resources Control Board. The prominent flood hazard zones in Salinas are along Rim Rock Drive and Laguna Canyon Road. Climate change is expected to increase the frequency and intensity of heavy rainfall events, which can overwhelm the city's drainage system.

**Landslides:** A landslide occurs when a slope becomes unstable, causing soil and rocks to slide downslope. Several areas in central and southern Salinas are within landslide susceptibility areas. Landslides are often the results of cascading climate hazards. Climate change is expected to increase conditions that can lead to landslides, such as heavy storms that saturate the ground and wildfires that remove vegetation and destabilize slopes.

**Sea Level Rise:** While Salinas is not directly on the coast, sea level rise could influence community well-being by infiltrating groundwater reserves with seawater. As a result of consistent overdraft of groundwater levels in the Salinas Valley Groundwater Basin, basin levels have dropped below sea level, allowing seawater to intrude from Monterey Bay into aquifers. Drought conditions can lead to deeper groundwater pumping, and this loss of groundwater exacerbates seawater intrusion.

**Severe Weather:** Severe weather includes intense winds, lightning, hail, and related events, which can create secondary effects, such as Public Safety Power Shutoffs. In February 2017, wind gusts in Salinas reached 71 miles per hour, bringing down power lines and 650 trees, leading to power outages and disrupting transportation. Climate change is expected to increase the frequency and intensity of severe weather events.

**Wildfire and Wildfire Smoke:** Salinas itself is not in a high or very high fire hazard severity zone, as determined by CAL FIRE, although some parts of the city are in areas of moderate fire hazard severity. Additionally, the community is vulnerable to smoke impacts from wildfires in surrounding areas. Wildfire smoke can severely impact air quality, leading to respiratory issues, especially for sensitive populations. Smoke from regional wildfires can also harm agricultural crops and outdoor workers. For example, in 2020, the LNU Lightning Complex fires affected air quality in Salinas for extended periods.

**Cascading Climate Hazards**

Climate hazards often interact with one another, creating compounding or cascading effects. For example, drought can dry out vegetation, making it more susceptible to wildfires. Wildfires can remove vegetation from hillsides, increasing the risk of landslides during subsequent rainstorms. Understanding these interactions helps identify areas and populations that are especially vulnerable to climate impacts.

## VULNERABLE POPULATIONS AND ASSETS

The Vulnerability Assessment analyzed how climate hazards may affect various populations and community assets in Salinas. Some households include residents who belong to more than one vulnerable population group, which can magnify risks and increase their overall sensitivity to climate impacts. For example, a household may be both cost-burdened and linguistically isolated. The Vulnerability Assessment identified the following populations and assets as particularly vulnerable:

## Vulnerable Populations

**Children under 10:** Young children are physiologically more vulnerable to the effects of extreme heat, poor air quality, and vector-borne diseases. They rely on caregivers for evacuation and emergency response, and disruptions to their routines and educational environment can impact their development.

**Cost-burdened households:** Households paying 30 percent or more of their income toward housing expenses have fewer resources available to prepare for and recover from climate hazards. According to the U.S. Department of Housing and Urban Development, housing costs should not exceed 30 percent of household income to be considered affordable.

**Households in poverty:** Households with incomes below the poverty line have limited resources to prepare for, respond to, and recover from climate hazards. The poverty threshold for a household of four in Salinas is $27,750.

**Incarcerated and formerly incarcerated individuals:** People in detention facilities often have limited ability to evacuate during hazardous conditions and may have restricted access to resources like clean air, water, and temperature control during extreme weather events.

**Immigrant communities:** Foreign-born populations, including immigrants, refugees, and undocumented persons, may face barriers to accessing emergency information and support services due to language differences, lack of familiarity with local systems, or concerns about immigration status.

**Linguistically isolated persons:** People who predominantly speak languages other than English, particularly Spanish, Tagalog, and Korean in Salinas, may face challenges receiving timely emergency notifications and accessing support services.

**Low-income households:** The State identifies $81,350 as the low-income threshold for a household of four people in Monterey County. These households often have fewer resources to prepare for and recover from disasters.

**Low-resourced people of color:** Persons identifying as members of racial and/or ethnic groups and facing limited access to resources, such as financial, social, healthcare, or educational assistance, often face disproportionate impacts from climate hazards.

**Migrant and/or seasonal workers:** Agricultural workers are particularly vulnerable to extreme heat, poor air quality, and economic disruptions caused by climate impacts on agriculture.

**Outdoor workers:** Workers in landscaping, agriculture, construction, and outdoor recreation are directly exposed to extreme heat, poor air quality, and other weather-related hazards.

**Overcrowded households:** Housing units with more than one person per room (excluding bathrooms and kitchens) may face greater challenges during emergencies and during extreme heat events.

**Persons experiencing homelessness:** The 2019 Point-in-Time count reported 976 unsheltered and 206 sheltered persons experiencing homelessness in Salinas. These individuals have high exposure to extreme weather and limited access to resources during emergencies.

**Persons living in mobile homes:** Salinas has numerous mobile home parks, including Rancho Salinas Mobile Park, Sherwood Lake Mobile Home Park, and others. Mobile homes are generally less structurally sound than other housing types and may be more vulnerable to extreme weather events.

**Persons living on single-access roads:** Residents in areas with limited evacuation routes, such as houses off Laurel Drive, Lake Street, and Skyway Boulevard, may face challenges evacuating during emergencies.

**Persons with chronic illness and/or disabilities:** Individuals with health conditions or mobility limitations may face greater challenges during evacuation, have increased sensitivity to extreme heat and poor air quality, and rely on consistent access to healthcare services that may be disrupted during emergencies.

**Persons without a high school degree:** Educational attainment can influence access to information, resources, and higher-paying jobs that provide financial security during climate-related disruptions.

**Persons without access to lifelines:** People without reliable access to a car or communication systems may face challenges evacuating or receiving emergency notifications.

**Pollution-burdened populations:** Communities already experiencing pollution burdens from diesel particulate matter, lead risk from housing, toxic releases from facilities, cleanup sites, hazardous waste sites, and impaired waters may face compounding health impacts from climate hazards.

**Renters:** Renters often have less control over building improvements that could increase resilience and may face displacement if rental properties are damaged by climate hazards.

**Seniors (65+):** Older adults may have physical limitations, chronic health conditions, or fixed incomes that make them more vulnerable to climate hazards, particularly extreme heat and poor air quality.

**Seniors living alone:** Seniors without household members to assist them face additional challenges during emergencies and may be at higher risk of social isolation during extreme weather events.

**Students:** Disruptions to educational facilities and transportation can impact students' learning and development.

**Unemployed persons:** People without employment may have limited financial resources to prepare for and recover from climate hazards.

## Vulnerable Community Assets and Services

The Vulnerability Assessment also identified key community assets and services that are vulnerable to climate change:

**Infrastructure:** Infrastructure that is potentially at risk of damage due to climate hazards include, biking and pedestrian trails, bridges, communication facilities, electrical transmission infrastructure, EV charging stations, flood-control infrastructure, hazardous materials sites, major roads and highways, natural gas pipelines, parks and open space, railways, Salinas Municipal Airport, solid waste facilities, transit facilities, and water and wastewater infrastructure.

**Buildings:** Critical buildings in Salinas that are vulnerable to damage from climate hazards include community centers and libraries, commercial businesses, government buildings, historic buildings and museums, homes and residential structures, medical and care facilities, public safety buildings, and schools.

**Economic Drivers:** Key industries and employment sectors in Salinas that can be disrupted due to climate hazards include agriculture and food processing, government and administration, education, major employers, medical centers, retail centers, and sports venues.

**Ecosystems and Natural Resources:** Important natural ecosystems and resources in Salinas that can be damaged or disrupted by climate hazards include grassland, groundwater, oak woodland, riparian areas, wetlands, lakes, and urban trees.

**Key Services:** Communications services; emergency medical response; energy delivery; government administration and community services; public safety response; public transit access; solid waste removal; and water and wastewater treatment, delivery, and collection.

The Vulnerability Assessment found that the following populations and assets have the highest vulnerability scores and should be prioritized in adaptation planning:

## Priority Vulnerable Populations:

- Low-income households
- Outdoor workers and migrant/seasonal workers
- Seniors and people with chronic illnesses or disabilities
- Children under 10
- Persons experiencing homelessness
- Linguistically isolated persons

## Priority Vulnerable Assets:

- Water supply and infrastructure
- Agricultural lands and operations
- Transportation infrastructure
- Energy infrastructure
- Homes in flood-prone areas
- Healthcare facilities

Based on these findings, the CAP includes adaptation strategies to address these key vulnerabilities and improve community resilience to climate change impacts. These strategies are presented in Chapter 3 of this plan.

## 2.3 GHG Inventories and Forecast

The first step in preparing a CAP is to assess current GHG emissions in the community through a GHG emissions inventory, and forecast those emissions to future years under a "business-as-usual" (BAU) scenario based on current population growth assumptions. A GHG emissions inventory is an estimate of the GHG emissions attributable to a particular community over the course of a specific year. For local governments, a GHG inventory is essential for identifying the main sources of emissions in their jurisdiction and establishing a baseline to track progress toward meeting emissions reduction goals in the CAP. A GHG inventory also helps to inform the CAP strategies, as it is critical for the strategies to address the largest sources of GHG emissions in the community.

The CAP presents the results of community-wide GHG inventories, which identify GHG emissions that result from activities of residents, employees, visitors, and other community members in Salinas. The community-wide GHG inventories are production-based inventories, which means that they assess the GHG emissions produced by activities occurring in the community or directly attributed to the community.

GHG emissions are generated by various activities that are commonplace in daily life. Some daily activities release GHG emissions in the location of the activity, such as gases released anytime an internal combustion engine is operated in a car. Other activities cause GHG emissions to be released elsewhere, such as using nonrenewable or non-carbon-free electricity to power a home, which generates GHG emissions in the location of the power plant that supplies the power, not in the home itself. Salinas must consider GHG emissions resulting from activities attributed to residents, businesses, workers, and visitors of the community.

### METHOD AND APPROACH

#### Baseline Emissions

This CAP includes inventories of community-wide GHG emissions in Salinas in 2005 and 2019. Each inventory is based on prior inventories for 2005 and 2019 developed by AMBAG. AMBAG prepared community-wide GHG inventories for Salinas and other communities in the region for the calendar years 2005, 2010, 2015, 2017, 2018, and 2019. The 2005 inventory creates a baseline for estimating 1990 emissions and establishing emissions reduction targets that are based on 1990 levels, while the 2019 inventory is used to forecast future emissions under a BAU scenario. As GHG emission inventories are estimates of GHG emissions based on standard methods and current available data, the

City updated the 2005 and 2019 AMBAG GHG inventories using consistent and current guidance and protocols and data, discussed further below. While inventories are not direct measurements of GHG emissions, the use of current protocols and data sources allows the GHG emission inventories to provide reliable estimates of local emission levels and a strong foundation for projection of future emissions.

## Inventory Protocols

The City prepared the GHG emissions inventories consistent with the guidance in widely adopted, standard protocol documents. These protocols provide guidance on what activities should be evaluated and how emissions from those activities should be assessed. Using standard methods also allows for an easy comparison of GHG emission levels across multiple years and communities.

The CAP community-wide GHG emissions inventories primarily rely on the methods in the United States Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions (U.S. Community Protocol), which was first developed in 2012 and updated most recently in 2019.[11] The California Governor's Office of Land Use and Climate Innovation encourages cities and counties in California to follow the U.S. Community Protocol for accounting community-wide GHG emissions. The GHG emission inventory also uses methods in the Global Protocol for Community-Scale Greenhouse Gas Inventories (Global Protocol) to assess GHG emissions from sources that are not covered in the U.S. Community Protocol.[12]

## Inventory Sectors and Current Data for Each Sector

The community-wide GHG emission inventory assessed GHG emissions from the following categories of activities, known as sectors:

**Transportation:** Vehicles traveling on local roads and highways produce GHG emissions from burning gasoline and diesel for fuel. The number and distance of trips within the city limits is informed by the AMBAG travel demand model, which provides an up-to-date estimate of the total VMT associated with Salinas. Trips that merely pass through the city limits are not included. This sector includes emissions from light-duty vehicles (those weighing 8,500 pounds or less, which includes passenger cars and small trucks/vans/SUVs) and heavy-duty vehicles (those weighing more than 8,500 pounds, which include many commercial trucks and buses).

**Residential Energy:** Electricity and natural gas are used to power lights and appliances in residential buildings. Using natural gas and generating electricity produces GHG emissions. The volume of GHG emissions produced depends on the amount of energy used in buildings and the source of the energy: renewable versus fossil-fuel-based. PG&E and 3CE provide residential electricity in Salinas. PG&E provides natural gas.

**Nonresidential Energy:** Electricity and natural gas are used to power lights and appliances in nonresidential buildings and operations. Nonresidential buildings include commercial buildings like stores, restaurants, or hotels, and industrial and municipal facilities. PG&E and 3CE provide nonresidential electricity, and PG&E provides natural gas to nonresidential customers.

**Solid Waste:** Waste material produced by the community is deposited in landfills and decomposes to produce methane. It is mostly organic material, such as food waste, which produces methane in landfills. The amounts of solid waste produced by Salinas are based on City data and the proportions of different types of waste are informed by CalRecycle and CARB.

**Agriculture:** Agricultural operations and activities release GHG emissions through the use of fossil fuel-powered equipment, crop cultivation and harvesting, fertilizer application, and livestock operations. Data for this sector comes from CARB and local agricultural reports.

**Off-road Equipment:** Portable equipment and vehicles that do not travel on roads, such as construction or lawn and garden landscaping equipment, produce GHG emissions from the gasoline, diesel, or natural gas fuel they use. Emissions for this sector are estimated using CARB's OFFROAD model.[13]

**Water and Wastewater:** Electricity is required to treat and pump water that is used in homes and businesses in Salinas, and to treat the wastewater produced in the community. This category measures the emissions from electricity based on the amount of water used in the community, how far it travels to reach Salinas, and the methods of treatment to make it safe for drinking and use. The processes of treating wastewater also produce emissions directly due to decomposition of the waste material and the methods of treatment. Data for this sector comes from local water and wastewater service providers.

**Land Use and Sequestration:** Carbon dioxide is absorbed and stored in trees and soils (sequestration) or released into the atmosphere from the development of previously undeveloped lands (land use) as trees and vegetation are cleared. This category measures

the change in trees and vegetation due to development or urban greening efforts over a 20-year period.

For further details on how GHG emissions from each sector are calculated, see **Appendix A:** *Quantification Technical Appendix*.

## Units of Measurement

GHG emission inventories assess emissions in a unit called carbon dioxide equivalent ($CO_2e$), which is a combined unit of all GHGs analyzed in the inventory. As different GHGs have different effects on the processes that drive climate change, $CO_2e$ is a weighted unit that reflects the relative potency of the different GHGs, including methane ($CH_4$) and nitrous oxide ($N_2O$). These inventories report amounts of GHGs in metric tons of $CO_2e$ ($MTCO_2e$), equal to 1,000 kilograms or approximately 2,205 pounds.

The weighting is based on each gas's global warming potential (GWP), which describes how much heat a GHG can trap in the atmosphere relative to carbon dioxide over a specific period, typically 100 years. For example, methane has a GWP of 28, meaning it is 28 times more effective at trapping heat than carbon dioxide over a 100-year period. By converting all GHGs to $CO_2e$, the inventory can provide a single, comprehensive measure of total emissions.

## Emission Factors

The City calculated most of the GHG emissions using data on GHG-generating activities in combination with emission factors. An emissions factor describes how many $MTCO_2e$ are released per unit of an activity. For instance, an emissions factor for electricity describes the carbon dioxide equivalent produced per kilowatt-hour (kWh) of electricity used, or an emission factor for on-road transportation describes the carbon dioxide equivalent produced per mile of driving.

Emission factors may change from year to year based on changes in technology, fuels, or behaviors associated with the source of the emissions. For example, an increase in vehicle fuel efficiency and greater adoption of zero-emission vehicles (ZEVs) causes a decrease in emission factors for vehicles. Similarly, as electricity providers like 3CE incorporate more renewable energy sources into their power mix, like wind or solar, the emission factor for electricity decreases. Some sectors, including agriculture and off-road equipment emissions, are calculated using formulas or models and do not have specific emission factors. For more information about the emission factors and models used to calculate

GHG emissions for the CAP, see **Appendix A:** *GHG Inventory and Forecast Technical Appendix*.

### Inventory Limitations

While the GHG inventory follows established protocols and uses the best available data, it has certain limitations that should be acknowledged. These include:

**Data Availability and Quality:** The inventory relies on data from various sources, some of which may have limitations in terms of accuracy, completeness, or relevance to Salinas specifically.

**Methodological Changes:** Updates to inventory methodologies between inventory years can affect comparability. The City has attempted to maintain consistent methods and update historic emission levels with the most current methods, but some differences may exist due to evolving best practices or data availability.

**Boundary and Jurisdictional Issues:** The community-wide inventory focuses on emissions that the City has some influence over through policies and programs. It does not include all emissions associated with goods and services consumed in Salinas but produced elsewhere or sources over which the City has no jurisdictional authority. These may include industrial sources permitted by the air district or other agencies or preempted from local or State regulation.

**Forecasting Uncertainty:** The emissions forecast is based on projections of population, employment, and other factors that are inherently uncertain, particularly for longer time horizons.

Despite these limitations, the GHG inventory and forecasts provide a solid foundation for the CAP, and identify the major sources of emissions in Salinas by sector and how emissions are likely to change over time without intervention.

## GHG EMISSIONS INVENTORY RESULTS

The City of Salinas has conducted multiple GHG emission inventories over the years to track emissions and measure progress toward achieving GHG emission reductions consistent with State goals. AMBAG initially prepared these inventories, with the 2005 and 2019 inventories updated as part of this CAP. As described previously, the 2005 inventory creates a baseline for establishing reduction targets, while the 2019 inventory is the most recent indication of how GHG emissions have changed since 2005.

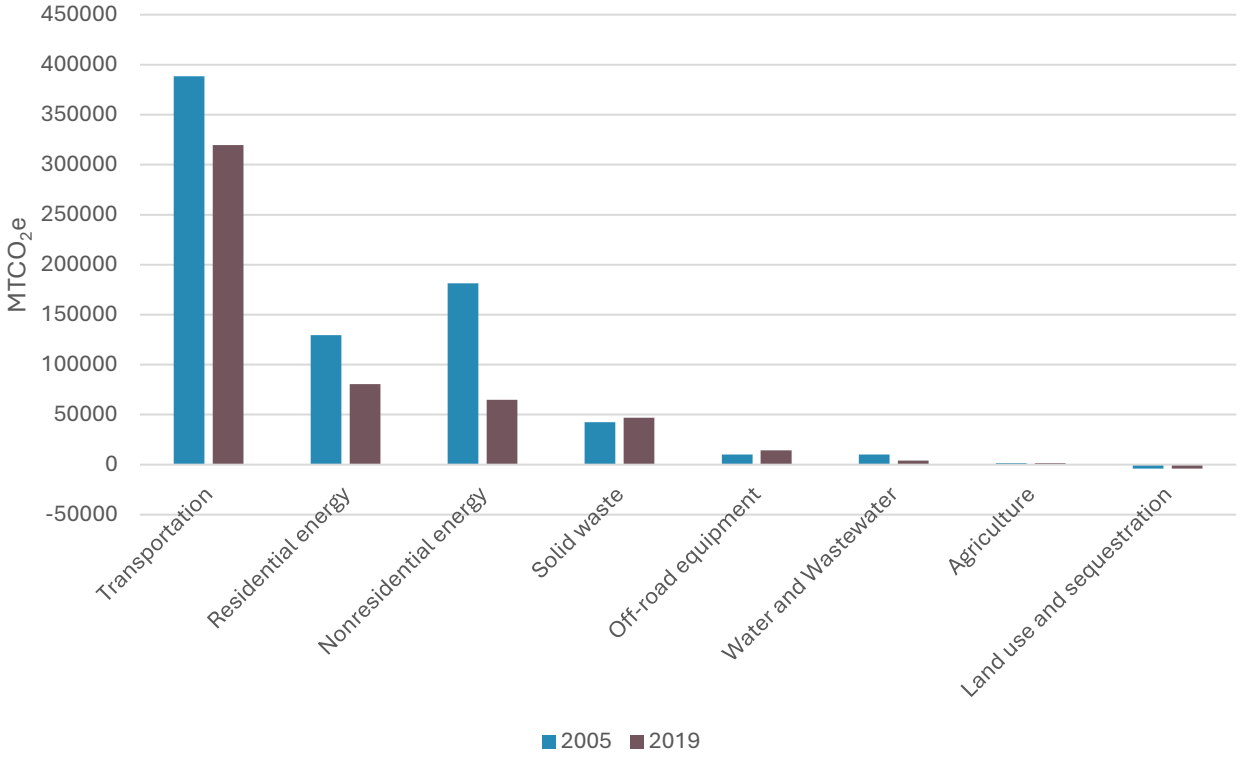
## Community-Wide GHG Emissions

**Table 1** and **Figure 6** show the total GHG emissions for 2005 and 2019, broken down by sector, and the proportion of total emissions represented by each sector. As shown in the table and figure, Salinas' total community-wide GHG emissions decreased from 762,830 $MTCO_2e$ in 2005 to 530,600 $MTCO_2e$ in 2019, representing a 30 percent reduction.

**Table 1: Proportions of Annual GHG Emissions by Sector**

| Sector | 2005 $MTCO_2e$ | 2005 Proportion of Total | 2019 $MTCO_2e$ | 2019 Proportion of Total | Percentage change 2005-2019 |
|---|---|---|---|---|---|
| Transportation | 388,430 | 51% | 319,610 | 65% | -18% |
| Residential energy | 129,510 | 17% | 80,400 | 13% | -38% |
| Nonresidential energy | 181,440 | 24% | 64,780 | 11% | -64% |
| Solid waste | 42,490 | 6% | 46,890 | 8% | 10% |
| Off-road equipment | 10,270 | 1% | 14,320 | 3% | 39% |
| Water and wastewater | 10,010 | 1% | 4,100 | 1% | -59% |
| Agriculture | 1,650 | 0.2% | 1,550 | 0.3% | -6% |
| Land use and sequestration | -970 | -0.1% | -1,050 | -0.7% | 8% |
| Total Annual $MTCO_2e$ | 762,830 | 100% | 530,600 | 100% | -30% |

**Figure 6: GHG Emissions by Sector, 2005 and 2019 ($MTCO_2e$)**




Transportation is the largest source of GHG emissions in Salinas, increasing from 51 percent of total emissions in 2005 to 65 percent in 2019. This is mostly due to emissions declining in all other sectors at a greater rate relative to those from transportation, which also declined between 2005 and 2019 by 18 percent. Despite an increase in VMT during this period, improvements in vehicle fuel efficiency and a growing number of electric and hybrid vehicles contributed to this decline. GHG emissions from electricity and natural gas use in homes and nonresidential buildings make up the second and third-largest sources of emissions.

The remaining sectors each make up less than 10 percent of total GHG emissions in both 2005 and 2019. The three sectors that experienced the largest decrease in annual GHG emissions between 2005 and 2019 are water and wastewater, nonresidential energy, and residential energy, which is driven by the transition to 3CE as the electricity provider and the accompanying increase in energy from renewable sources. Due to the availability of cleaner sources of energy being used to power homes and businesses, and process and treat water and wastewater, these three sectors achieved the greatest reduction in GHG emissions. Improvements in energy efficiency reduced the amount of electricity and natural gas use in Salinas between 2005 and 2019 despite a growing population, which has

also contributed to a reduction in energy-related GHG emissions. The GHG emissions from solid waste and off-road equipment increased between 2005 and 2019 by 10 percent and 39 percent respectively, most likely due to population growth and an increase in construction activity.

Agricultural emissions decreased 6 percent from 2005 to 2019. Agriculture represents a small portion of Salinas' overall emissions, reflecting the limited agricultural activities within city limits despite the city's role as a center for the agricultural industry in the surrounding Salinas Valley.

**The Typical Salinas Resident's Carbon Footprint**

Based on the 2019 GHG emission inventory, the average Salinas resident produces 3.4 $MTCO_2e$ per year. They use 785 kWh of electricity, 96 therms of natural gas, and 31,439 gallons of water. They produce 1 ton of waste and drive 6,229 miles.

The level of GHGs sequestered due to land use and the urban tree population increased by 8 percent from 2005 to 2019, as the rate of development of previously undeveloped land in Salinas did not change much during this period. The negative values indicate that this sector functions as a carbon sink, with vegetation in the city removing more carbon dioxide from the atmosphere than is emitted through land use changes.

It should be noted that the sectors seeing increases in emissions are those that proportionately contribute the least to the GHG emissions inventory.

## GHG "Business-as-Usual" Emissions Forecast

A GHG emission forecast takes information from the GHG emission inventory as well as predictions of future demographic trends and the projected impacts of climate-related legislation to predict future levels of GHG emissions. The GHG emissions forecast projects how Salinas' emissions are expected to change in the future if no new actions are taken beyond existing programs and policies. This "business-as-usual" or BAU forecast provides a reference point against which to measure the impact of the CAP's GHG reduction strategies and helps identify the emissions reduction "gap" that needs to be addressed to meet the City's GHG reduction targets.

### GHG Forecasting Method

The forecast relies on growth projections from the General Plan Update, including anticipated changes in population, households, and employment in Salinas.

The forecast assumes that there is no new action taken to reduce GHG emissions and that each individual Salinas resident or worker continues to produce the same per-person amount of GHG emissions as they did in 2019. The BAU forecast is informed by demographic indicators, such as City population, households, and jobs. As the City adds workers and grows in population, the BAU forecast assumes emissions will increase proportionally. The forecast does not account for the effects of future federal, State, or local policies or programs that would reduce emissions, as these reductions are assessed separately in the GHG emission reduction strategies discussed in Section 3.2.

The forecast provides a reference point against which to measure the impact of the CAP's GHG emission reduction strategies and helps identify the emissions reduction gap that needs to be addressed to meet the City's GHG emission reduction goals.

## Demographic Projections

The GHG emissions forecast is informed by demographic indicators, such as city population, households, and jobs. As the city grows in population, the BAU forecast assumes emissions will increase proportionally. **Table 2** lists the demographic indicators that formed the basis of the BAU forecast. These indicators align with the General Plan update and its projected buildout figures.

### Table 2: Demographic Indicators, GHG Emissions Forecast 2019-2045

| Indicator | 2019 | 2030 | 2040 | 2045 | Percentage change 2019-2045 |
|---|---|---|---|---|---|
| Population | 160,310 | 178,170 | 196,120 | 205,760 | 28% |
| Households | 41,320 | 47,760 | 54,480 | 58,190 | 41% |
| Jobs | 58,430 | 68,540 | 79,240 | 85,200 | 46% |
| Service population (population + jobs) | 218,740 | 246,710 | 275,360 | 290,960 | 33% |
| Annual VMT | 758,874,820 | 908,786,140 | 1,045,069,170 | 1,127,806,690 | 49% |
| Acres of agriculture land | 3,170 | 2,250 | 1,420 | 1,010 | -68% |

Note: Emissions are rounded to the nearest 10. Totals may not equal the sum of individual rows. Acres of agricultural land are projected using an agriculture-jobs-to-acres ratio from 2019 and the projections of future agricultural jobs in the city.

Salinas' demographic indicators are all projected to increase approximately 28 to 46 percent between 2019 and 2045. The population is expected to grow by 28 percent, households by 41 percent, and jobs by 46 percent. VMT are projected to increase by 49 percent, reflecting both population growth and anticipated development patterns. Acres of agricultural land are projected to decrease by 68 percent due to increased development.

## Business-as-Usual Forecast Results

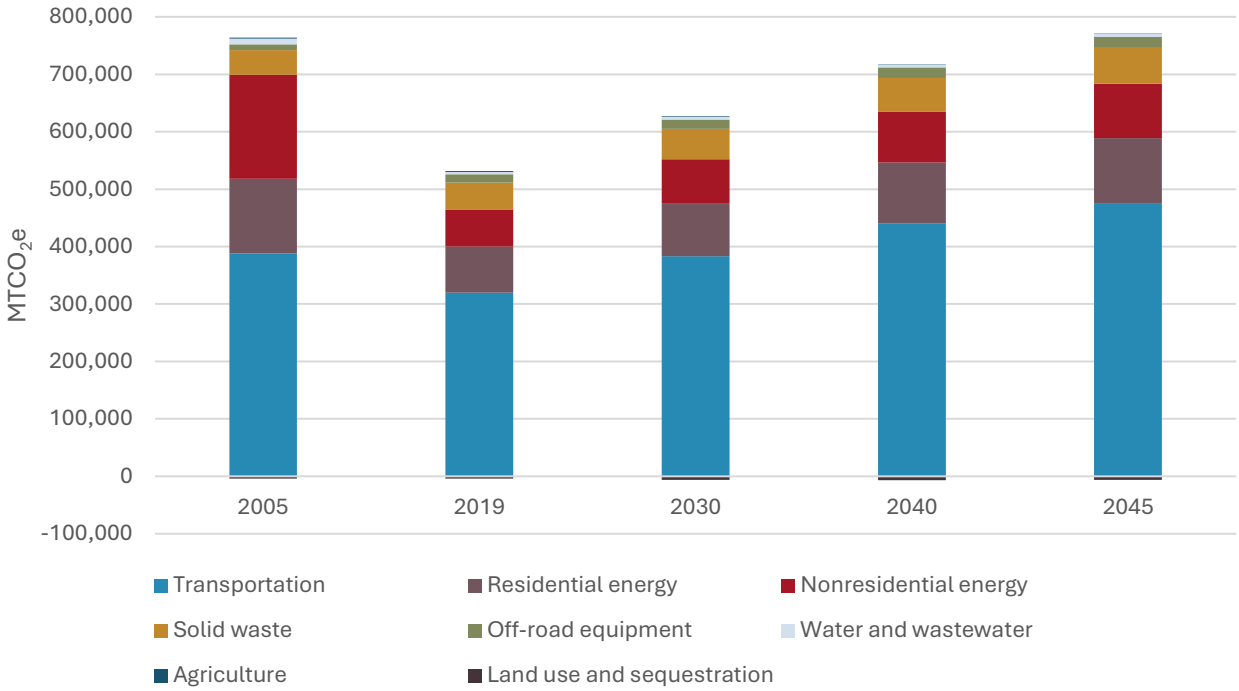
**Table 3** and **Figure 7** show Salinas' projected GHG emissions under the BAU scenario for 2030, 2040, and 2045 against a 2019 baseline. The BAU forecast assumes that emissions per person, per household, or per job remain constant at 2019 levels, with total emissions changing only due to growth in population, households, and employment.

### Table 3: Inventoried and Forecasted BAU GHG Emissions, 2019-2045 ($MTCO_2e$)

| Sector | 2019 | 2030 | 2040 | 2045 | Percentage change 2019-2045 |
|---|---|---|---|---|---|
| Transportation | 319,610 | 383,040 | 440,700 | 475,740 | 49% |
| Residential energy | 80,400 | 92,930 | 106,010 | 113,220 | 41% |
| Nonresidential energy | 64,780 | 75,990 | 87,850 | 94,450 | 46% |
| Solid waste | 46,890 | 52,890 | 59,030 | 62,370 | 33% |
| Off-road equipment | 14,320 | 16,240 | 18,250 | 19,350 | 35% |
| Water and wastewater | 4,100 | 4,630 | 5,170 | 5,450 | 33% |
| Agriculture | 1,550 | 1,100 | 690 | 490 | -68% |
| Land use and sequestration | -4,040 | -6,460 | -6,500 | -6,360 | 57% |
| **Total** | **527,610** | **620,360** | **711,200** | **764,710** | **45%** |

Note: Emissions are rounded to the nearest 10. Totals may not equal the sum of individual rows.

**Figure 7: Inventoried and Forecasted GHG Emissions, 2019-2045 ($MTCO_2e$)**




If City staff and Salinas' community members do not implement any changes to reduce GHG emissions, total emissions are projected to increase by 45 percent from 527,610 $MTCO_2e$ in 2019 to 764,710 $MTCO_2e$ in 2045. This increase is driven primarily by growth in transportation, residential energy, and nonresidential energy emissions, which collectively account for approximately 89 percent of the projected emissions increase.

Transportation emissions are expected to increase by 49 percent, aligned with the projected increase in VMT. Residential energy emissions are expected to increase by 41 percent, corresponding to the projected growth in households. Nonresidential energy emissions are expected to increase by 46 percent, in line with the projected growth in jobs.

Agriculture is the only sector expected to see a decrease in emissions, with a projected 68 percent reduction due to the anticipated conversion of agricultural land to urban uses as specified in the General Plan. The land use and sequestration sector is expected to increase its carbon sequestration capacity by 57 percent, primarily due to the expansion of urban forest as the city grows.

This forecast provides the foundation for understanding the scale of emissions reductions needed to meet the City's climate goals, as outlined in **Chapter 3,** *GHG Emissions Reduction Strategy*.

# 3. GHG Emissions Reduction Strategy

The Salinas CAP is a roadmap to reduce GHG emissions and adapt to changing climate conditions over time by implementing specific strategies and actions. The CAP establishes a pathway to lower emission levels from all sources of GHG emissions, subject to the limitations presented in **Chapter 2**, enhance climate resilience, and establish measurable targets for success. This pathway includes short-term and long-term goals and associated climate action strategies to help guide the community toward meeting regional and local GHG emission targets and improved adaptation. The pathway approach is flexible, allowing Salinas to adjust implementation as needed to respond to new challenges and opportunities. This chapter identifies the short- and long-term targets for GHG emissions reduction and the strategies to achieve these goals. This chapter also outlines the climate change adaptation strategies meant to improve the community's resilience to potential hazards.

## 3.1 GHG Emissions Reduction Targets

Setting appropriate GHG emissions reduction targets is a critical component of the CAP. These targets provide measurable goals to guide policy development and implementation, allow progress to be tracked over time, and demonstrate alignment with State and regional climate objectives.

Salinas' GHG emission reduction targets are informed by State climate goals, established through legislation and executive orders, and adapted to the local context. As discussed in **Chapter 1**, the State's first Climate Change Scoping Plan identified local governments as a critical factor in the State's efforts to reduce GHG emissions and encouraged cities and counties to adopt GHG emission reduction targets that are generally consistent with those of the State, which compares future GHG emission levels to those of 1990. Recognizing that many local jurisdictions did not have the data needed to calculate 1990 GHG emissions, the first Scoping Plan declared that reducing local GHG emissions 15 percent below "current" (2005–2010) levels by 2020 would be equivalent to reducing GHG emissions to 1990 levels for local governments. For this reason, many jurisdictions use a year between 2005 and 2010 as a baseline year for GHG emissions inventories and then estimate their 1990 level GHG emissions from that baseline. This CAP uses 2005 as the baseline year to estimate Salinas' 1990 levels and determine the GHG emission reduction

targets. The estimates of 1990 emissions are described below. The City has established the following targets, which are informed by and generally consistent with those of the State:

- Reduce GHG emissions 40 percent below estimated 1990 levels by 2030 (SB 32
- Reduce GHG emissions 60 percent below estimated 1990 levels by 2040 (interim goal)
- Reduce GHG emissions 80 percent below estimated 1990 levels and achieve net carbon neutrality by 2045

Achieving these ambitious targets will require participation from all sectors of the community. The City is committed to ensuring that the transition to a low-carbon future is equitable, with costs and benefits fairly distributed across the community. This means ensuring that climate strategies do not disproportionately burden low-income households, that green job opportunities are accessible to all residents, and that co-benefits such as improved air quality and reduced energy costs are prioritized in historically underserved communities.

## ESTABLISHING 1990 BASELINE EMISSIONS

While Salinas' GHG reduction targets are expressed relative to 1990 levels, the City's earliest GHG inventory is from 2005. To establish targets based on 1990 levels, the City follows guidance from CARB's 2008 Climate Change Scoping Plan, which indicates that a 15 percent reduction from 2005-2008 levels is approximately equivalent to 1990 levels for local governments.

Using Salinas' 2005 GHG inventory of 759,920 $MTCO_2e$ as the baseline, the City's estimated 1990 emission level is 645,930 $MTCO_2e$. Based on this estimate, **Table 4** shows the maximum emissions allowable in each target year.

### Table 4: Salinas GHG Emissions Reduction Targets

| Target Year | Target | Target Emissions Level ($MTCO_2e$) |
|---|---|---|
| 2030 | 40% below 1990 levels | 389,050 |
| 2040 | 60% below 1990 levels | 259,360 |
| 2045 | 80% below 1990 levels | 129,680 |

## CARBON NEUTRALITY GOAL

The City's 2045 target includes achieving net carbon neutrality, which means that any remaining GHG emissions are balanced by an equivalent amount of carbon removal through sequestration or verified offsets. This approach recognizes that some emission sources may be technically difficult or prohibitively expensive to eliminate completely.

Net carbon neutrality differs from zero emissions in that it allows for some continuing emissions as long as they are offset by carbon removal activities. Carbon removal can occur through natural processes (such as planting trees or managing soils to increase carbon storage) or through technological means (such as direct air capture).

The City's approach to carbon neutrality prioritizes direct emissions reductions, aiming to reduce emissions by at least 80 percent before relying on carbon removal to address the remainder. This approach aligns with State guidance, which emphasizes the importance of significant, direct emissions reductions as the foundation of climate action.

## SIGNIFICANCE OF THE TARGETS

These targets represent ambitious but achievable goals for Salinas. As shown in **Chapter 2**, the City has already made significant progress, reducing emissions by 31 percent from 2005 to 2019. However, meeting the 2030, 2040, and 2045 targets will require accelerated action across all sectors.

The targets are also significant from a regulatory perspective. By establishing targets consistent with State goals, the CAP serves as a "qualified greenhouse gas reduction plan" under CEQA, allowing for streamlined environmental review of new development projects.

The following sections outline how Salinas will achieve these targets through a combination of State, regional, and local actions.

# 3.2 Contribution of Existing and Planned State Actions

Achieving Salinas' ambitious GHG reduction targets will require action at all levels of government. This section describes how existing and planned State, regional, and local efforts will contribute to reducing the City's emissions, providing a foundation upon which Salinas' CAP strategies will build.

# State Actions

## Renewables Portfolio Standard

The Renewables Portfolio Standard (RPS) requires electricity providers in California to procure an increasing share of their electricity from renewable and carbon-free sources. Established in 2002 and amended several times, most recently by SB 100 in 2018, the RPS sets the following targets:

- 33 percent renewable electricity by 2020
- 60 percent renewable electricity by 2030
- 100 percent carbon-free electricity by 2045

Both of Salinas' electricity providers, Pacific Gas and Electric Company (PG&E) and 3CE, are subject to these requirements. In 2020, PG&E reported that 35 percent of its power came from renewable sources, while 3CE reported 31 percent, both exceeding the 2020 target. As these providers continue to increase their renewable and carbon-free electricity portfolios, GHG emissions from electricity use in Salinas will decline accordingly. This affects not only direct electricity use in buildings but also electricity used for water and wastewater systems and for charging EVs.

## Clean Car Standards

California has implemented increasingly stringent emissions standards for vehicles since the passage of AB 1493 in 2002. These standards have evolved over time to require greater fuel efficiency and lower emissions from new vehicles. In 2022, CARB adopted the Advanced Clean Cars II regulations, which require that all new passenger cars and light trucks sold in California be ZEVs by 2035. The State has also adopted similar standards for larger vehicles through the Advanced Clean Trucks regulation and for public transit through the Innovative Clean Transit regulation. These standards will accelerate the transition to electric and other ZEVs in Salinas, significantly reducing emissions from the transportation sector, which is currently the largest source of GHG emissions in the city. [4]

[4] At time of CAP preparation (March 2026), the federal government is seeking to revoke California's authority to enact these regulations. The matter is currently pending in the courts. The State has indicated its intent to continue the transition to requiring new vehicle sales to be zero-emission vehicles, either through Advanced Clean Cars II and other regulations, or if the courts invalidate these regulations, through new regulations enacted using different mechanisms. CARB's Drive

## Title 24 Energy-Efficiency Standards

California's Building Standards Code, particularly Part 6 (Energy Code) and Part 11 (Green Building Standards Code, or CALGreen), establish energy efficiency requirements for new and renovated buildings. These standards are updated every three years to require increasing levels of efficiency. The most recent complete set of standards went into effect on January 1, 2026. These standards include requirements for solar photovoltaic systems on new residential construction, electric-ready infrastructure, and significant improvements in building envelope efficiency. As new buildings are constructed in Salinas and existing buildings undergo major renovations, these standards will ensure that they use significantly less energy than older structures, reducing emissions from the built environment.

## Short-Lived Climate Pollutant Reduction Strategy (SB 1383)

SB 1383, passed in 2016, aims to reduce emissions of short-lived climate pollutants, which have a disproportionate warming impact in the near term. For local governments, the most significant aspect of SB 1383 is its requirements for organic waste diversion. The law requires a 75 percent reduction in organic waste disposal by 2025 and recovery of at least 20 percent of currently disposed edible food for human consumption. These requirements will significantly reduce methane emissions from landfills, as organic material is the primary source of these emissions. Salinas, in coordination with the Salinas Valley Solid Waste Authority (Salinas Valley Recycles), is implementing programs to comply with SB 1383, including expanded organics collection and processing infrastructure.

The Clean Car Standards are projected to provide the largest share of emissions reductions, accounting for approximately 81 percent of total reductions from State actions in 2030 and 77 percent in 2045 (see **Table 5** and **Figure 8** for a breakdown of State program reductions). This reflects the outsized role of transportation in Salinas' emissions profile.

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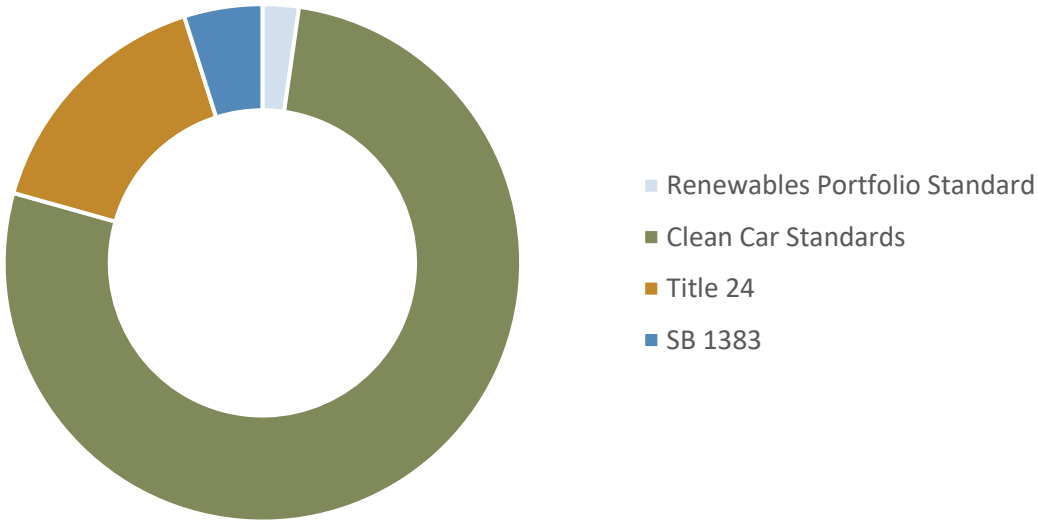
Forward program, Executive Order N-27-25, budget and grant priorities, and other State-level actions and statements are clear indications of this intent.

### Table 5: Salinas GHG Emission Reductions from State Climate Action Efforts ($MTCO_2e$)

| Summary of State Reductions | 2030 | 2040 | 2045 |
|---|---|---|---|
| Renewables Portfolio Standard (RPS) | 1,120 | 2,500 | 4,810 |
| Clean Car Standards | 73,270 | 147,360 | 163,440 |
| Title 24 | 7,190 | 22,220 | 33,400 |
| SB 1383 | 8,790 | 9,810 | 10,370 |
| Total Reductions | **90,370** | **181,890** | **212,020** |
| Note: Emissions are rounded to the nearest 10. Totals may not equal the sum of individual rows. | | | |

Title 24 standards and SB 1383 provide more modest but still significant reductions, particularly in the later years as more new buildings are constructed and organic waste diversion programs mature. The RPS provides the smallest quantified reduction, in part because Salinas has already experienced significant reductions in electricity emissions due to the transition to 3CE service in 2018.

### Figure 8: Proportion of State Program Reductions, 2045




## Progress with Existing Actions

**Table 6** shows Salinas' projected emissions after accounting for the reductions from State actions previously described and compares these emissions to the City's GHG reduction targets.

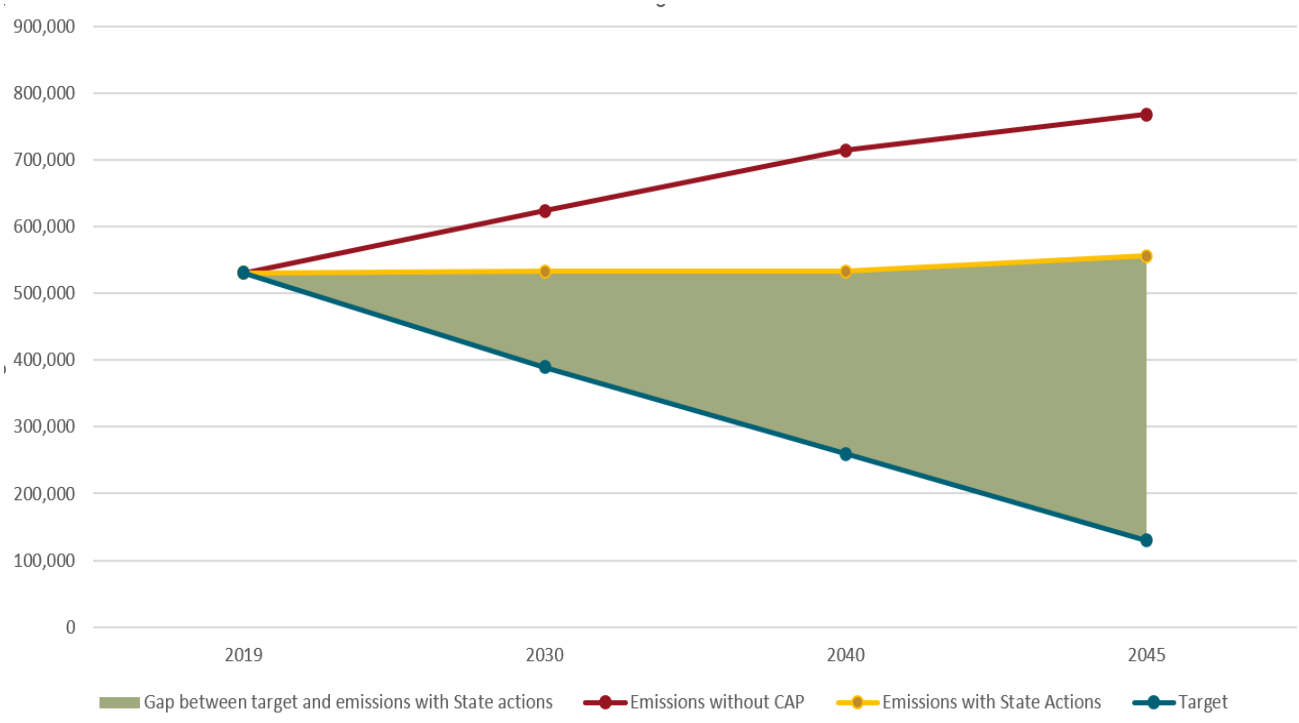
### Table 6: Community-wide GHG Emissions with Existing Actions and Progress Toward Targets ($MTCO_2e$)

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| Business-as-Usual Forecast (see Table 3) | 623,580 | 714,630 | 768,250 |
| Emissions with Existing State Actions | 533,210 | 532,740 | 556,230 |
| GHG Emission Reduction Target | 389,050 | 259,360 | 129,680 |
| Target Achieved with Existing State Actions? | No | No | No |
| Needed Salinas Reductions to Achieve Target | 144,160 | 273,380 | 426,550 |

As shown in **Table 6**, State actions alone are not sufficient to meet Salinas' GHG reduction targets. To achieve the targets, Salinas needs to implement local actions that will reduce emissions by an additional 144,160 $MTCO_2e$ by 2030, 273,380 $MTCO_2e$ by 2040, and 426,550 $MTCO_2e$ by 2045.

This "emissions gap" shown in **Figure 9** highlights the need for the comprehensive local strategies outlined in **Chapter 4**, *Implementing the CAP*. By building on the foundation of State, regional, and existing local actions, these strategies will enable Salinas to achieve its ambitious climate goals while creating a more sustainable, equitable, and resilient community.

### Figure 9: GHG Emissions after State Program Reductions



## 3.3 GHG Emission Reduction Strategies

Even with existing State actions in place to reduce GHG emissions in Salinas, the community still falls short of its ambitious targets. This CAP presents a set of 21 climate action and adaptation strategies and associated implementation actions to reduce GHG emissions and help achieve adaptation and resilience goals. This section presents an overview of the 18 GHG emission reduction strategies. **Appendix A** provides supporting quantification and details for all strategies.

The strategies are accompanied by a list of recommended implementation actions that were selected through conversations with City staff and community members. The list of recommended implementation actions represents suggested means of achieving the strategies they support but are not meant to provide a prescriptive path to implementation. Not all the actions listed for the GHG emission reduction strategies may be necessary to reach the City's identified GHG reduction targets. Due to ongoing changes in technology, regulations, and the emergence of new best practices and funding opportunities, this approach enables the City to adapt to and leverage new opportunities or partnerships without being constrained by a specific implementation pathway.

There are 18 strategies that produce GHG emissions reductions from community-wide activities, which are organized under 8 goals and categories that align with the GHG emission categories in the inventory and forecast. The CAP goals represent a future, ideal state of Salinas, which the strategies and actions aim to create.

**Sectors/Categories**

Building Energy

Land Use

Transportation and Outdoor Equipment

Water

Solid Waste

Natural Environment

Agriculture

City Operations

Each strategy in this CAP provides additional benefits to the Salinas community beyond GHG emissions reduction potential. These community benefits represent the positive impacts that climate action strategies deliver, helping to improve quality of life, support economic development, and build community resilience. The CAP prioritizes strategies that offer multiple benefits to maximize the value of public investments and ensure that climate action supports broader community goals.

The following core benefits are used throughout this CAP:

**Conserves resources**: Reduces consumption of energy, water, or materials.

**Enhances community resilience**: Strengthens social networks and community capacity to respond to challenges.

**Enhances equity**: Addresses disparities and ensures fair distribution of benefits.

**Improves air quality**: Reduces local air pollutants that affect respiratory health.

**Improves ecosystem health**: Protects or restores natural systems that provide community benefits.

**Improves energy resilience**: Reduces dependence on the electrical grid and fossil fuel infrastructure.

**Improves hazard resilience**: Reduces vulnerability to climate change impacts and natural disasters.

**Improves public health**: Reduces air pollution, promotes active transportation, or improves access to healthy environments.

**Reduces cost of living**: Lowers household expenses for energy, transportation, or other necessities.

**Supports local economy**: Creates jobs, supports local businesses, or attracts investment.

## QUANTIFYING GHG EMISSION REDUCTIONS

The CAP uses a process called "quantification" to determine the amount of GHG emissions reduced by each strategy. Activity data from the GHG emission inventories, such as VMT or kWh, are combined with participation rates and information about the reduction in activity data from each action to calculate the GHG reduction benefit of each strategy. The quantification assumes that community members participate in each strategy at a certain rate, which translates to a particular level of performance that can be used to track implementation. Detailed information about how GHG emissions savings from each strategy are calculated, along with the participation assumptions, is provided in **Appendix A**.

This CAP identifies GHG reductions for most of the strategies. However, there are some strategies that do not have a specific reduction level due to missing data or the lack of a reliable method to assess reductions. Most of these efforts are still expected to reduce GHG emissions, but the specific reduction amounts cannot be accurately determined. These strategies are labeled "supportive."

Strategies that only reduce electricity use or increase renewable electricity supplies will show zero GHG reductions in 2045. This is because the State's RPS requires all electricity sold in California to be carbon-free by 2045. This CAP already credits reductions from the RPS as an existing State program. However, local renewable energy systems and energy efficiency strategies will continue to provide co-benefits to the community, including lower electricity bills and increased resiliency against power disruptions, even if there are no associated measurable GHG reductions beginning in 2045.

# Building Energy

Energy use in buildings in Salinas accounts for approximately a third of Salinas' GHG emissions. These emissions come from using natural gas and electricity for appliances and lighting. The most effective ways to reduce these emissions are to make buildings more efficient so that they use less energy, using electricity from renewable sources, and to replace fossil fuel-powered appliances with electric ones. Salinas has already made significant strides toward reducing emissions from buildings since 2005. This includes actions taken by 3CE, a regional renewable electricity provider that began operations in 2018 and supplies approximately 98 percent of Salinas' electricity. Building owners can also install rooftop solar panels to produce their own renewable electricity. Rooftop solar reduces electricity bills for residents and businesses and, if paired with a battery storage system, provides power during outages, thereby increasing energy resilience. The State and 3CE have incentive programs available for building owners to decrease the cost of solar panel installation.

> New electricity accounts in Salinas are automatically enrolled in Central Coast Energy's 3Cchoice plan, which ensures that at least 60 percent of the electricity provided is from renewable sources. Customers can opt-up to 3Cprime to receive 100 percent of their electricity from local renewable sources.

State and local building codes require a certain level of energy performance in new construction, which includes energy efficiency and a reduction in the use of fossil fuel-based power. However, existing buildings also contribute to GHG emissions in Salinas. Property owners can retrofit existing buildings to be more energy efficient through changes to the building envelope (insulation and windows) or by replacing older appliances and light bulbs with more energy-efficient options. They can also install solar panels and replace natural gas-powered appliances with electric options, such as electric heat pump water heaters and space heaters. 3CE has programs to assist building owners with electrification updates to existing buildings through financial incentives and technical assistance.

## Goal: Buildings in Salinas are powered by zero-carbon, affordable sources of energy.

### Strategy 1: Retrofit existing buildings and facilities to reduce energy use, reduce reliance on nonrenewable fuels, and improve comfort.

This strategy incentivizes and supports building owners, including homeowners, in retrofitting their existing buildings to be more energy efficient by swapping out natural gas appliances and making changes to the building envelope to reduce energy consumption. There are currently programs to support building owners in electrification and weatherization retrofits, and this strategy includes actions to promote those incentives and make them more accessible to Salinas residents and business owners. This strategy also includes actions to ensure retrofit incentives and assistance programs are available to renters, low-income households, and vulnerable populations.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | 40,000 | 99,710 | 131,540 |

### Community Benefits:


Conserves resources


Enhances equity


Improves air quality


Improves energy resilience


Improves hazard resilience


Reduces cost of living


Supports local economy

**Timeframe:** Ongoing

**Responsible Parties:** Community Development Department

**Supporting Parties:** City Manager, PG&E, 3CE, Housing Division, community organizations

## Implementation Actions

### Regulations and Policies

1-1 Encourage cool roofs and light-colored, nonreflective permeable paving materials as part of retrofit, repair, and replacement activities, using recycled materials or other materials with low embedded carbon. Consider offering incentives to property owners that adopt these measures.

1-2 Encourage replacement and new water heaters and space heating and cooling systems with electric models. Partner with 3CE and PG&E to provide incentives for electric panel upgrades and electrification retrofits in all property types, with priority for affordable housing and buildings in disadvantaged communities and other underserved areas.

### Education and Outreach

1-3 Partner with 3CE and PG&E to provide educational programming and materials, contractor and electrician training, free or low-cost energy audits, and promotion of financial incentives for electrification and energy efficiency retrofits in existing buildings.

### Community Partnerships

1-4 Partner with the Housing Services Program administered by the Housing Division to implement energy efficiency home renovations for qualifying property owners.

1-5 Partner with community organizations and landlords to incentivize electrification and energy efficiency retrofits in rental properties, especially for affordable housing and buildings in disadvantaged communities and other underserved areas.

1-6 Evaluate and implement financing mechanisms (such as on-bill financing, PACE programs, or revolving loan funds) to support electrification and energy efficiency retrofits.

## Strategy 2: Accelerate all-electric and energy-efficient construction of new buildings.

This strategy aims to improve energy efficiency in new buildings constructed in Salinas, including single-family homes, apartment buildings, and nonresidential buildings. While California already has "green building" standards in place through certain sections of the Building Code, cities can encourage building owners to go beyond the State code with the adoption of reach codes that require electric appliances and increased energy efficiency through educational efforts and heightened building standards as appropriate. In 2025, the State legislature passed a regulation pausing all new residential reach codes until 2031 except in specific cases. Reach codes for nonresidential buildings, including commercial buildings, are still permitted. The actions in this strategy identify potential avenues for the City to incentivize building owners to construct new buildings that use all-electric appliances and are more energy efficient than the State requires. Replacing natural gas appliances with electric models also improves indoor air quality by eliminating the harmful toxins that are released into the air by burning natural gas, which includes carbon monoxide, particulate matter, and formaldehyde.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | 1,230 | 8,270 | 11,630 |

### Community Benefits:


Conserves resources


Enhances equity


Improves air quality


Improves energy resilience


Improves public health

**Timeframe:** Ongoing

**Responsible Parties:** Community Development Department

**Supporting Parties:** City Manager, 3CE, PG&E

### Implementation Actions

## Regulations and Policies

2-1 Explore establishing a reach code that exceeds the California Building Standards Code for nonresidential new construction, which requires the use of less-carbon intensive energy sources, to achieve higher levels of energy conservation and efficiency.

2-2 Streamline the land use permitting process and/or identify other incentives for project applicants of affordable housing developments and developments in disadvantaged communities and other underserved areas that are designed to exceed the State's building and energy codes in terms of electrification and energy efficiency.

## Education and Outreach

2-3 Partner with 3CE and PG&E to promote the financial benefits of electrification and expand incentives for electrification, especially for developers of affordable housing.

### Strategy 3: Increase access to solar energy and energy storage systems community-wide.

Even if all the homes and businesses in Salinas transition to electric appliances, if the electricity used by the community is not from a renewable source, the City will struggle to reach its GHG emission reduction targets. As cities "electrify," it is critical that power is sourced from solar, wind, or other renewable or non-polluting sources. This strategy supports a transition to renewable sources of power sooner than State law, which mandates that all electricity in California come from renewable or carbon-free sources by 2045. This strategy includes a requirement for multifamily apartment buildings of a certain size to install solar panels, as well as actions to inform buildings owners of the various incentives and technical assistance programs available for installing rooftop solar. This strategy also supports the development of energy independence and resilience through the establishment of microgrids and personal solar and battery-storage systems.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | 1,170 | 2,200 | 0 |

### Community Benefits:

Conserves resources

Enhances equity

Improves air quality

Improves energy resilience

Improves hazard resilience

Improves public health

Reduces cost of living

**Timeframe:** Mid-term (2027-2035)

**Responsible Parties:** Community Development Department

**Supporting Parties:** City Manager, Public Works Department, 3CE, PG&E, community organizations

## Implementation Actions

### Regulations and Policies

3-1 Require multifamily developments to have solar arrays, consistent with the requirements of the Building Standards Code.

3-2 Encourage installing solar arrays with energy storage systems at parking lots, education facilities, community facilities, and other public buildings not owned by the City.

### Education and Outreach

3-3 In partnership with 3CE and PG&E, develop and implement outreach and support for solar energy adoption, including information about financial incentives and financing options, multilingual educational materials, navigation assistance for permitting and installation processes, and mechanisms to support renters in advocating for solar systems.

### Municipal Operations

3-4 Evaluate feasible locations for solar arrays and energy storage, including as part of microgrids, on City-owned buildings, parking lots, and infrastructure.

3-5 Partner with community organizations to develop clear, easy to understand, and multilingual materials and communication methods to support residents in navigating the processes for financing, permitting, and installing solar arrays and energy storage at their homes.

## Strategy 4: Expand opportunities for renewable energy on farms and agricultural energy production.

This strategy aims to support a transition from fossil fuel-powered equipment, appliances, and buildings on farms to those that use renewable energy or electricity. While the City does not directly control agricultural operations and most active agricultural land is outside the city limit, there are some farms within the SOI that could be incorporated into the city limits. City efforts can encourage farmers to use equipment that is less GHG-intensive. The actions in this strategy encourage partnerships between the City, agricultural businesses, and environmental advocacy groups to expand renewable energy generation, storage, and use on farms in Salinas.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | Supportive | Supportive | Supportive |

### Community Benefits:


Conserves resources


Improves air quality


Improves energy resilience


Improves public health


Supports local economy

**Timeframe:** Mid-term (2027-2035)

**Responsible Parties:** Community Development Department

**Supporting Parties:** Monterey County Office of the Agricultural Commissioner, local agricultural businesses

## Implementation Actions

### Community Partnerships

4-1 Work with local agricultural businesses, county partners, and advocacy groups to support renewable energy generation and electric equipment adoption on agricultural lands within city limits without compromising the productivity and integrity of important farmlands.

4-2 Support and facilitate growers' efforts to receive State and federal financial incentives for renewable energy production or use on farms.

## LAND USE

Vehicle transportation is the largest source of GHG emissions in Salinas, comprising 60 percent of the community's emissions. These emissions come from cars and trucks that use gasoline, diesel, or natural gas for fuel. Land use and development patterns contribute to GHG emissions as they influence how people get around. Low-density, spread-out development, often referred to as sprawl, typically increases reliance on personal vehicles for commuting, shopping, and daily activities. If housing is separate from commercial areas, residents may be less likely to walk or bike to jobs, errands, social activities, or appointments. In contrast, compact, mixed-use development patterns reduce travel distances and make it easier for people to walk, bike, or use public transit, which helps lower emissions.

Transit-oriented development is a land use strategy that clusters housing, jobs, and services near high-quality public transit. By placing daily needs within walking distance of bus and rail stations, transit-oriented development reduces the need for long car trips, cutting VMT and associated GHG emissions. These compact, walkable neighborhoods also support more efficient use of infrastructure, encourage active transportation, and make low-carbon travel options more convenient and accessible for residents.

Most of the land in Salinas is designated for residential use, which includes mostly single-family homes and some multifamily housing. Most existing development is limited to a single use (only 3 percent of land is designated mixed-use) in one- or two-story buildings. Upcoming development in the City's Future Growth Areas, as determined by the previous General Plan, will be mixed-use and have ample bike lanes to encourage active transportation. These areas would be designed with a commercial or mixed-use center and surrounding compact residential neighborhoods with pedestrian and bicycle connections between areas. The City of Salinas 2040 General Plan, Visiòn Salinas, projects an increase in residential density by approximately 40 percent by 2045 and increases the mixed-use areas. This encourages walkable and social districts throughout Salinas that bring residents closer to daily needs.

## Goal: Land use and development patterns support active transportation, use of public transit, and reduce vehicle dependence.

### Strategy 5: Promote infill development to reduce long commute times and vehicle-miles traveled.

This strategy aims to reduce dependence on personal vehicles through mixed-use and infill development, which refers to building within the existing development footprint instead of expanding outward to undeveloped land. The actions supporting this strategy incentivize developers to build more densely with a variety of housing types and sizes close to commercial areas and transit stops.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | 8,730 | 16,120 | 21,780 |

### Community Benefits:


Conserves resources


Enhances equity


Enhances community resilience


Improves air quality


Improves public health


Reduces cost of living


Supports local economy

**Timeframe:** Ongoing

**Responsible Parties:** Community Development Department

**Supporting Parties:** City Manager

## Implementation Actions

### Regulations and Policies

5-1 Reduce or waive permit fees to encourage the construction of Accessory Dwelling Units (ADUs), including exploring incentives for ADUs that are zero-net energy or all-electric.

5-2 Incentivize diverse housing types and increased density near transit, employment centers, and community amenities through multiple mechanisms, including reduced development fees, changes to zoning, expedited permitting, reduced parking minimums, improved transit connectivity and support for mixed-use development, live-work spaces, and missing-middle housing.

Missing middle housing, as coined by Daniel Parolek, refers to a range of housing types, such as duplexes, triplexes, fourplexes, townhomes, cottage courts, and small apartment buildings, which fall between single-family homes and large multifamily development. They are typically low-rise, blend into residential neighborhoods, and provide more affordable and flexible options for different household sizes and incomes. This type of housing helps increase density in walkable areas without changing neighborhood character dramatically.

# TRANSPORTATION AND OUTDOOR EQUIPMENT

As noted previously, transportation is the largest source of emissions for Salinas. The dominant mode of transportation in Salinas is personal vehicles rather than active modes (walking or biking) or public transit (buses or trains). Encouraging the use of transit, active transportation, and carpools/vanpools rather than the use of single-occupancy private vehicles by making it easier and more convenient for people to use these means reduces VMT and therefore reduces GHG emissions from internal combustion engine vehicles.

## Public Transit

Approximately 83 percent of Salinas' residents commute to work in a car. In contrast, only about 2 percent of residents walk, bike, or take transit to work.[14] Many residents commute outside the city for work and are more likely to use a personal vehicle instead of transit if frequent, reliable transit options are not available. Similarly, residents are less likely to use transit for local trips if transit stops are too far away or if transit is infrequent or inconvenient. Public transit systems need to be well-designed, well-connected, and accessible to a wide range of potential riders. This includes having an extensive network that covers the city; ensuring that transit fares are affordable for all community members; and ensuring that transit stops and stations are conveniently located near residences, workplaces, and other destinations. Without a well-connected and accessible system, people are less likely to choose transit over private vehicles. Transit systems should provide reliable and frequent services to attract riders, including nights, weekends, and other periods outside of peak commute times. Irregular schedules and long wait times can deter people from using public transportation, especially if they have time-sensitive commitments. Additionally, suburban areas often have incomplete pedestrian and cycling infrastructure, which can make it difficult or time consuming for transit riders to access stops and stations from their homes or workplaces.

Monterey-Salinas Transit (MST), a County agency, is the local transit provider and operator. Upcoming local transportation projects affecting Salinas include the SURF! Busway and Bus Rapid Transit (BRT) project, which is intended to create fast, easy travel from Salinas Valley to Downtown Monterey and several points in between with the creation of a new six-mile, bus-only roadway. The project will also connect existing local transit lines to increase

service. Residents may also be more likely to use transit for longer trips if they are able to combine it with an active mode of transportation, especially with improved walking and biking infrastructure.

Regional rail and bus services are provided by Amtrak and MST with stations near downtown. There are several planned transportation projects that will provide greater access to the region via transit as well as increasing transit service locally. These include the Capitol Corridor Extension to Salinas, which is a planned Amtrak and Caltrain extension of passenger-rail service from Santa Clara County to Salinas and includes the revitalization of the downtown Salinas train station. The AMBAG 2040 Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS) also outlines expanded express or commuter-based service in Monterey South County, including Salinas. Additionally, the Marina-Salinas Multimodal Corridor is a multi-jurisdictional project developed in response to the need for a regional route through the former Fort Ord area. The future corridor is expected to increase roadway capacity by prioritizing high-quality transit, biking, and walking as viable alternatives to driving.

## Active Transportation

Residents are less likely to choose active modes of transportation, like walking or biking, for local or regional travel if they feel unsafe sharing the road with cars or if there is an incomplete sidewalk network. During the Visiòn Salinas outreach events, residents noted safety as a barrier to walking and biking more for trips within Salinas. While Salinas has a growing bicycle and pedestrian network for local trips, there is potential to expand access to, and safety of, these routes. In 2021, the City adopted the Vision Zero Action Plan to address road safety by committing to a strategy to eliminate traffic-related serious injuries and fatalities. The plan promotes policies like “complete streets” design principles that focus on improving safety for all users, especially cyclists and pedestrians.

## Zero-Emission Vehicles

It is unlikely that all private vehicle trips will be replaced with transit or active modes of transportation, so encouraging the proliferation of ZEVs is another important component of achieving GHG mitigation goals. The transition to ZEVs in California is supported by CARB’s Advanced Clean Car II Standards, which applies to vehicles produced from 2026 to 2035, and requires that all new light-duty vehicles sold in California be zero-emission by 2035.[15] Supporting this requirement, there are a number of financial incentives offered by the State and utilities to encourage people to purchase ZEVs. The California Building Code also requires that newly constructed buildings of a certain size be “EV-ready,” meaning they have EV charging stations installed or adequate electrical supply and infrastructure to

support their installation. Local governments can further encourage the adoption of ZEVs by installing EV charging stations in public areas around the city and require more building types to be EV-ready.

### Outdoor Equipment

Outdoor equipment refers to gas- or diesel-powered equipment and machinery, such as landscaping and construction equipment, which release air pollutants and GHGs and can be a public nuisance. Fossil fuel combustion from outdoor equipment emits air pollutants including nitrogen oxides ($NO_x$) and sulfur oxides ($SO_x$). While harmful in and of itself, $NO_x$ also contributes to the formation of ozone, which can cause irritation and damage to lung tissue and worsen asthma and chronic illnesses, including obstructive pulmonary disease and reduced lung function. The State of California has recognized the importance of including outdoor equipment for the State to meet its GHG reduction goals. In December 2021, CARB approved a measure that will require most newly manufactured small outdoor equipment engines sold in California, such as those found in leaf blowers, lawn mowers, and similar landscaping equipment, to have zero emissions. This regulation went into effect in 2024. Newly manufactured portable generators, including those in recreational vehicles, were required to meet more stringent standards in 2024 and will be required to meet zero-emission standards beginning in 2028.

## Goal: Public transit, active transportation, and zero-emission vehicles are an easy, comfortable, and accessible way of getting around Salinas and neighboring cities.

### Strategy 6: Expand public transit services to provide a feasible alternative to single-occupancy vehicles.

This strategy intends to support a more robust public transit system that encourages residents to choose transit over personal vehicles for local and regional trips. It includes actions to increase the frequency of buses, expand the transit system's coverage, and improve the reliability of the system. Building on regional transit planning efforts, including the SURF! Busway and Bus Rapid Transit project and potential future Amtrak and Caltrain expansion in Salinas, this strategy supports enhanced local and regional connectivity. This strategy also includes actions to improve the comfort of transit users by providing shade at bus stops and recommends a Universal Basic Mobility program to ensure equitable access to transit for low-income residents.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | 180 | 790 | 1,800 |

### Community Benefits:


Conserves resources


Enhances equity


Enhances community resilience


Improves air quality


Improves public health


Reduces cost of living

**Timeframe:** Mid-term (2027-2035)

**Responsible Parties:** Community Development Department

**Supporting Parties:** Public Works, Monterey-Salinas Transit, school districts

## Implementation Actions

### Regulations and Policies

6-1 When undertaking roadway improvements, ensure that they support transit services through design features such as dedicated bus lanes, transit priority signals, and bus pullouts.

6-2 In partnership with Monterey-Salinas Transit, expand transit accessibility and affordability through programs such as Universal Basic Mobility, employer transit pass programs, and other subsidy initiatives for low-income individuals. Support regional transit expansion projects, including the SURF! Busway and Bus Rapid Transit project, and future Amtrak and Caltrain expansion in Salinas.

6-3 Work with Monterey-Salinas Transit to expand the coverage of bus lines, expand operational hours of bus services, increase bus frequency, improve rider comfort and accessibility, provide adequate shading at transit stops, and keep costs low for riders.

### Community Partnerships

6-4 Support efforts by local school districts to support expansion of school bus service areas and conversion of diesel school buses to electric.

## Strategy 7: Make active transportation affordable, safe, fun, and easy.

This strategy aims to encourage the use of active transportation modes in place of personal vehicles by creating a safer cycling and pedestrian network through protected bike lanes, a complete sidewalk network, and new pathways and trails through Salinas. Actions in this strategy also recommend continued support and implementation of existing plans and programs, such as the Safe Routes to School Program, Vision Zero Action Plan, Pavement Management Program Active Transportation Plan, and the Monterey Bay Sanctuary Scenic Trail Network Master Plan.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | 17,560 | 28,730 | 44,020 |

### Community Benefits:


Conserves resources


Enhances community resilience


Enhances equity


Improves air quality


Improves ecosystem health


Improves energy resilience


Improves hazard resilience


Improves public health


Reduces cost of living


Supports local economy

**Timeframe:** Mid-term (2027-2035)

**Responsible Parties:** Community Development Department

**Supporting Parties:** Public Works, Monterey-Salinas Transit, Transportation Agency for Monterey County, Ecology Action

## Implementation Actions

### Regulations and Policies

7-1 Provide incentives for residents looking to purchase bicycles, including electric bicycles.

### Education and Outreach

7-2 Organize community bike safety and bike repair events.

### Municipal Operations

7-3 Maintain or expand resource commitments to implement the City's Vision Zero Action Plan, Pavement Management Program Active Transportation Plan, and the Monterey Bay Sanctuary Scenic Trail Network Master Plan to ensure safe conditions for walking and biking, expand and upgrade the City's bike and sidewalk network, and ensure investments yield resilience co-benefits such as shading in areas prone to extreme heat.

7-4 Continue to support implementation of the Salinas Safe Routes to School Program in partnership with the Transportation Agency for Monterey County and Ecology Action.

### Community Partnerships

7-5 Partner with bikeshare or shared micromobility providers to close first-/last-mile gaps between destinations and public transit stops.

## Strategy 8: Reduce commute-related vehicle-miles traveled (VMT).

This strategy aims to reduce personal vehicle trips as a means of commuting to work. The actions in this strategy require large employers, and encourage smaller firms, to adopt Transportation Demand Management programs, which are strategies designed to encourage employees to use alternative transportation options, such as carpooling, public transit, or telecommuting, to reduce single-occupancy vehicle use, alleviate parking demand, and reduce GHG emissions. This strategy also encourages City employees to opt for carpooling over personal vehicles and recommends telecommuting and flexible work hours. This strategy also supports collaboration with MST and Amtrak to reduce costs and improve accessibility to regional transit options.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | 3,770 | 5,130 | 8,370 |

### Community Benefits:

Enhances community resilience

Enhances equity

Improves air quality

Improves public health

Reduces cost of living

**Timeframe:** Mid-term (2027-2035)

**Responsible Parties:** Community Development Department

**Supporting Parties:** Public Works, City Manager, Monterey-Salinas Transit, Amtrak

## Implementation Actions

### Regulations and Policies

8-1 Require large employers to establish Transportation Demand Management (TDM) programs and encourage smaller employers to adopt similar programs or participate in the existing TAMC Go831 Rideamigos program.

### Municipal Operations

8-2 Support flexible work hours, telecommuting, and regional carpool programs (such as Go831 Rideamigos) for City employees.

### Community Partnerships

8-3 Work with Monterey-Salinas Transit and Amtrak to reduce costs and improve accessibility for commuters.

## Strategy 9: Accelerate the transition to zero-emission vehicles and equipment.

This strategy aims to support the proliferation of ZEVs by installing more EV chargers in public spaces supporting or requiring the installation of EV chargers at businesses and homes. This strategy also includes actions to improve public awareness of the various rebates and incentives for purchasing a ZEV. One of the barriers to the increased use of ZEVs on the road is their price. Currently, many electric models of vehicles are more expensive than their gasoline-powered counterparts. While increasing the supply of EVs will help drive down cost, in the meantime there are various rebates and incentives that individuals can take advantage of to make purchasing an EV more feasible.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | 69,130 | 108,690 | 180,530 |

### Community Benefits:


Conserves resources


Enhances community resilience


Enhances equity


Improves air quality


Improves ecosystem health


Improves energy resilience


Improves hazard resilience


Improves public health


Reduces cost of living


Supports local economy

**Timeframe:** Near-term (2026-2027)

**Responsible Parties:** Community Development Department

**Supporting Parties:** Public Works, City Manager, Monterey-Salinas Transit, community organizations, local businesses, agricultural businesses

## Implementation Actions

### Regulations and Policies

9-1 Explore opportunities to reduce charging costs for low-income residents and ensure charging ports are available in low-income neighborhoods.

9-2 Explore opportunities to install curbside EV charging infrastructure in commercial areas and at City facilities for public access.

9-3 Encourage the adoption of electric landscaping and construction equipment.

9-4 Advocate for a more resilient electricity grid to support EV proliferation through advancements like energy storage and smart grid systems.

## Education and Outreach

9-5 Run community test drive events ZEVs.

9-6 Provide education on financing and rebates available for the purchase of EVs and installation of vehicle chargers.

## Community Partnerships

9-7 Work with community groups to design and implement electric car sharing programs, focusing on areas with high residential density, low-income residents, and limited transportation options.

9-8 Partner with local businesses to encourage installation of chargers for light-duty vehicles at major parking lots and employment centers, and for heavy-duty vehicles at nearby truck rest stops and warehouses.

9-9 Work with agricultural businesses to accelerate the adoption of electric agricultural equipment.

## WATER

Reducing overall water use lowers GHG emissions by reducing the energy needed to transport, heat, and process water. In addition to saving energy, water conservation and efficiency protects one of California's most precious resources and helps Salinas become more resilient to drought and water shortage. This is especially important in Salinas as the water supply comes entirely from groundwater and over-drafting the groundwater basin can lead to water supply issues, contamination by seawater intrusion or agricultural chemicals, and subsidence, which is the gradual caving or sinking of the valley floor. In response to over-drafting of the groundwater basin and saltwater intrusion, the City of Salinas passed a water conservation ordinance, which places restrictions on the uses of potable water, requires automatic shutoff valves on hoses, and water-efficient fixtures and appliances. Reducing water use in individual homes and businesses can also reduce utility costs.

Salinas can reduce water use and protect itself from the effects of drought by implementing strategies to increase indoor water efficiency, reduce outdoor water use, and promote water reuse or recycling. Installing more efficient water fixtures, implementing greywater systems to reuse water, and installing rainwater catchment systems all reduce GHG emissions associated with water use. Reducing water use also reduces the volume of wastewater that must be treated, thereby reducing GHG emissions from the wastewater treatment process.

In addition to water conservation, the strategies in this section aim to monitor and replenish Salinas' water supply by recharging the groundwater basin. Recharging a groundwater basin means putting water back into the ground to refill the underground water supply that households, farms, and businesses depend on. Recharge can happen naturally when rain and streams soak into the soil, or it can be done intentionally by spreading water in specific recharge ponds, directing stormwater to seep into the ground above the aquifer, or even pumping treated wastewater back underground. Salinas' Urban Forestry Management Plan found that over 60 percent of Salinas' land is covered by impervious surfaces, which impedes the ability of water to percolate through the ground and into the aquifer below. The City can also work with other jurisdictions in the region to monitor groundwater levels and remediate instances of contamination to maintain a safe and reliable water supply.

## Goal: Salinas protects and conserves its water supply.

### Strategy 10: Reduce water use in buildings and urban landscapes.

This strategy aims to reduce how much water households and businesses use in their daily operations. The actions include replacing water fixtures and appliances with more efficient models, transitioning to drought-tolerant landscaping, and installing greywater systems to reuse water. This strategy also includes actions to install rainwater catchment systems on City-owned properties and educate community members about the benefits and methods of water conservation.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | 330 | 460 | 490 |

### Community Benefits:

Conserves resources

Enhances equity

Improves ecosystem health

Improves hazard resilience

Reduces cost of living

**Timeframe:** Ongoing

**Responsible Parties:** Community Development Department

**Supporting Parties:** Public Works, schools, community organizations, Central Coast Greywater Alliance, Water Awareness Committee, and Monterey Bay Friendly Landscaping

## Implementation Actions

### Regulations and Policies

10-1 Continue to implement the provisions of the City's water conservation ordinance.

10-2 Provide development incentives for new development that exceeds State code in terms of water efficiency.

10-3 Provide financial incentives for installation of water-efficient fixtures and appliances, greywater systems, and drought-tolerant landscaping.

### Education and Outreach

10-4 Provide training and educational materials for landscapers on how to conserve water.

### Municipal Operations

10-5 Support the development of the City's Long Term Water Strategy and identify city-wide opportunities for rainwater catchment and reuse.

### Community Partnerships

10-6 Develop and implement comprehensive water conservation education and outreach through partnerships with schools, community groups, and regional organizations such as Central Coast Greywater Alliance, Water Awareness Committee, and Monterey Bay Friendly Landscaping to promote installation of rainwater catchment systems, greywater systems, water-efficient fixtures and appliances, and drought-tolerant landscaping.

## Strategy 11: Ensure the long-term stability and quality of Salinas' water supply.

This strategy supports a resilient water supply in Salinas through actions to support conserving and recharging the groundwater supply. It includes actions to improve monitoring of groundwater levels and to incorporate recycled water in the community where feasible. This strategy also includes actions to increase the number of permeable surfaces above the aquifer to maximize recharge efforts.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | Supportive | Supportive | Supportive |

### Community Benefits:

Conserves resources

Improves ecosystem health

Improves hazard resilience

**Timeframe:** Ongoing

**Responsible Parties:** Community Development Department

**Supporting Parties:** Public Works, Monterey County Groundwater Sustainability Agency, Salinas Valley Basin Groundwater Sustainability Agency, Pajaro Valley Water Management Agency, agricultural businesses, construction industry representatives, community organizations

## Implementation Actions

### Regulations and Policies

11-1 Expand investment in groundwater monitoring and remediation as necessary.

11-2 Integrate forecasts of groundwater emergence into land use and transportation planning decisions.

11-3 Explore the use of recycled water throughout Salinas.

### Education and Outreach

11-4 Install green infrastructure in Salinas and provide education and outreach to the community about the benefits of green infrastructure.

### Municipal Operations

11-5 Replace non-permeable paving with permeable surfaces on City-owned property in areas above the aquifer and incentivize private property owners to as well.

### Community Partnerships

11-6 Collaborate with regional water management agencies and stakeholders to monitor, conserve, and protect groundwater resources, including maintaining existing partnerships with Monterey County Groundwater Sustainability Agency, Salinas Valley Basin Groundwater Sustainability Agency, Pajaro Valley Water Management Agency, agricultural businesses, the construction industry, and community groups.

## SOLID WASTE

Waste generates GHG emissions as it decomposes in landfills. Organic waste, which includes food scraps, plant material, and soiled paper, is an especially significant producer of methane and carbon dioxide emissions. However, if recovered properly, these materials can avoid landfills and live on as precursors to new material goods.

The most effective way to reduce waste is to reduce the production of materials that will end up in landfills, an approach that not only reduces waste but also reduces the energy, emissions, and material demands of production. Once a material or object has been produced, it is important to find opportunities for that material to be reused. This includes turning organic waste into compost that can be used to enrich soil in gardens and on farms and recycling glass, paper, metal, and plastic items into new products. Efforts to divert waste away from landfills and into composting and recycling programs reduce emissions and help make valuable recycled materials available to the broader community.

The State has long recognized the importance of compost and recycling programs. Most recently, SB 1383, which went into effect at the beginning of 2022, aims to reduce organics waste disposed of in landfills by 75 percent (from 2014 levels) by 2025. The City of Salinas and other local governments across the state are also required to purchase products made from recycled organic material, such as recycled paper products, renewable energy, compost, and mulch.

The City offers recycling and composting service to residents and businesses. Expanding outreach about the City's recycling and composting programs helps ensure that residents know how to properly manage their waste in addition to having a convenient and affordable way to do so.

## Goal: Salinas residents and businesses engage in sustainable waste practices by recycling, composting, and reducing the use of disposal materials.

### Strategy 12: Increase diversion of compostable and recyclable materials from landfills.

This strategy aims to increase the amount of waste that is composted or recycled instead of being sent to a landfill. It includes actions to ensure that all properties have compost and recycling services and that businesses are reducing the amount of single-use plastic service-ware. Often, food waste is recoverable and can be diverted from the waste stream and distributed to community members in need. It also includes actions to educate residents and business owners about the various recycling and composting services available to them.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | 910 | 2,480 | 2,340 |

### Community Benefits:

Conserves resources

Enhances community resilience

Improves public health

Supports local economy

**Timeframe:** Ongoing

**Responsible Parties:** Community Development Department

**Supporting Parties:** Salinas Valley Solid Waste Authority

## Implementation Actions

### Regulations and Policies

12-1 Partner with the Salinas Valley Solid Waste Authority to ensure that food composting and recycling containers and collection areas are provided at all residential and multifamily units, rental properties, community gathering places, and businesses.

12-2 Ensure businesses are using biodegradable, compostable, or recyclable food service-ware, as required by the City of Salinas Municipal Code.[5]

12-3 Partner with the Salinas Valley Solid Waste Authority and other partners to increase food diversion and separation programs, expand composting infrastructure, support composting education and giveaway programs, and expand compost use and availability community-wide, especially for local farms.

12-4 Host special events for collection and recycling of electronic waste, hazardous waste, bulky items, and other special waste types.

12-5 Promote and support programs to provide free of charge pre-scheduled curbside collections of bulky items and specialty waste.

### Education and Outreach

12-6 Continue to partner with the Salinas Valley Solid Waste Authority to host compost training workshops and compost giveaways.

## Strategy 13: Reduce the amount of waste created in Salinas.

It can be difficult to avoid putting waste in a landfill if products or their packaging are made from non-recyclable or compostable materials. Reducing the purchasing and consumption of goods that are not recyclable reduces the volume of waste sent to the landfill and therefore the GHG emissions generated from waste. Reusing products, purchasing used products, or sharing items like tools also reduces the amount of waste generated and the GHG emissions used to create new products. This strategy includes actions to encourage practices that reduce the consumption of new or non-recyclable products.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | 4,410 | 9,840 | 33,800 |

[5] (Ord. No. 2654 (NCS), § 4, 2-15-2022).

### Community Benefits:


Conserves resources


Enhances community resilience


Enhances equity


Improves air quality


Improves ecosystem health


Improves energy resilience


Improves hazard resilience


Improves public health


Reduces cost of living


Supports local economy

**Timeframe:** Ongoing

**Responsible Parties:** Community Development Department

**Supporting Parties:** Library and Community Services, Public Works

## Implementation Actions

### Regulations and Policies

13-1 Continue to enforce the City's food to-go container compliance program and reusable bag ordinance.

13-2 Consider a deconstruction requirement to reduce demolition waste from construction and renovation and facilitating material reuse.

## Community Partnerships

13-3 Support material reuse, repair, and sharing through partnerships with local libraries, community centers, schools, and other community service providers to develop maker and/or product repair events, tool-lending libraries, and other reuse programs.

13-4 Provide funding to local libraries and community centers to acquire tool-lending libraries.

13-5 Support and promote opportunities for material reuse and donation via local salvaged materials retailers, zero-waste community groups, charitable organizations, and local garage sales.

# NATURAL ENVIRONMENT

The natural environment plays a key role in capturing and storing carbon, helping to offset GHG emissions. Trees, grasses, and other vegetation act as a carbon sink by absorbing carbon dioxide from the atmosphere during photosynthesis and storing it in their trunks, roots, leaves, and soil. Healthy ecosystems, such as forests, grasslands, and wetlands, also improve air quality and provide habitat for animals.

Even an urban forest, which includes street trees and other types of public greenery, can assist in carbon sequestration. Increasing the area of the urban tree canopy also provides cooling benefits to a community and reduces instances of the urban heat island effect, which is when paved urban areas become warmer than surrounding rural, agricultural, or natural areas due to a dense concentration of pavement, buildings, and other surfaces that absorb and retain heat. If buildings are shaded by trees, they tend to use less energy for air conditioning, which lowers utility bills and reduces GHG emissions from buildings. Salinas' current tree canopy covers 11.5 percent of the city and that canopy is not equally distributed throughout the community. The Urban Forest Management Plan found a range of 1 percent of canopy coverage to 23 percent of coverage across different Census tracts in the community, and approximately 50 percent of parks and 80 percent of bikeways have less than 10 percent tree canopy coverage. Areas with more tree coverage are in the southwest and northeast areas of the city. Salinas has several existing plans to increase the area of the urban tree canopy, including the Alisal Vibrancy Plan; Urban Forest Management Plan; and Parks, Recreation, and Libraries Master Plan. Beyond the urban landscape, the Salinas River watershed consists of wooded creeks and marshland. River ecosystems and wetlands play a role in carbon sequestration as well.

An additional benefit of reducing GHG emissions in a community is improved air quality. Inversely, when communities focus on improving local air quality, they consequently reduce GHG emissions as sources of pollution are reduced or removed. According to CalEnviroScreen, a tool created by the State's Office of Environmental Health and Hazard Assessment, Salinas experiences higher levels of diesel particulate matter and airborne pesticides than the majority of Census tracts in California. Diesel particulate matter is especially prevalent surrounding US Highway 101, which runs through the city. The strategies in this section support more green space and urban trees to capture carbon, enhance community character, improve air quality, and provide cooling benefits to Salinas.

There are also strategies meant to directly improve air quality in the community by reducing pollutants at the source and therefore mitigating GHG emissions.

## Goal: Salinas has a natural environment that supports community and ecosystem health.

### Strategy 14: Expand urban green space.

This strategy aims to increase the urban tree canopy coverage and other green areas, including parks, open space, community gardens, riparian areas, and wetlands, which all act as a carbon sink. The actions in this strategy build on existing plans to maintain and improve green space in the community, which are the Alisal Vibrancy Plan; Urban Forest Management Plan; Salinas River Channel Stream Maintenance Program; and Parks, Recreation, and Libraries Master Plan. This strategy also ensures equitable distribution of and access to parks, open space, and shade trees through an action to prioritize urban greening projects in disadvantaged neighborhoods with low tree canopy coverage. Finally, this strategy supports the proliferation of community gardens to create additional carbon sinks and improve food security.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | Less than 10 | Less than 10 | Less than 10 |

**Community Benefits:**


Enhances community resilience


Enhances equity


Improves air quality


Improves energy resilience


Improves ecosystem health


Improves hazard resilience


Improves public health


Reduces cost of living

**Timeframe:** Mid-term (2027-2035)

**Responsible Parties:** Community Development Department

**Supporting Parties:** Library and Community Services, Public Works, community organizations

## Implementation Actions

### Regulations and Policies

14-1 Expand the urban tree canopy through the implementation of the Urban Forest Management Plan and related plans.

14-2 Improve and maintain the existing parks and open space system and ensure ease of access to them, with priority for disadvantaged communities and other underserved areas and neighborhoods affected by urban heat islands.

14-3 Continue to invest in projects to protect and restore riparian and wetland ecosystems.

14-4 Expand and support community gardens, school gardens, and food forests in areas of high food insecurity.

14-5 Incentivize developers to include community gardens on projects of a certain size, especially affordable housing developments in disadvantaged communities and other underserved areas. Partner with local community groups to expand gardening and ecosystem restoration volunteer opportunities.

### Community Partnerships

14-6 Continue to support the Salinas River Channel Stream Maintenance Program.

## Strategy 15: Improve Salinas' air quality.

This strategy strives to reduce airborne pollutants in Salinas to improve community health and reduce GHG emissions. The actions in this strategy aim to reduce truck traffic and idling in the city limits and improve air filtration in schools and community buildings that may be exposed to pollutants. It also includes actions to form partnerships with community organizations to improve local air quality monitoring and to support implementation of the regional Monterey Bay Unified Air Pollution Control District Air Quality Plan.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | Supportive | Supportive | Supportive |

### Community Benefits:

Enhances equity

Improves air quality

Improves ecosystem health

Improves public health

**Timeframe:** Near-term (2026-2027)

**Responsible Parties:** Community Development Department

**Supporting Parties:** Public Works, Caltrans, community organizations

## Implementation Actions

### Regulations and Policies

15-1 Limit truck traffic near sensitive receptors such as schools, parks, and disadvantaged communities and other underserved areas. Reduce truck idling at rest stops and industrial centers.

15-2 Improve ventilation and air filtration systems in schools, recreation centers, and other community gathering spaces or resilience hubs.

15-3 Facilitate the implementation of the Monterey Bay Unified Air Pollution Control District Air Quality Plan.

### Community Partnerships

15-4 Work with community organizations to identify air pollution hot spots in the community to inform future policies.

## AGRICULTURE

Agricultural operations and activities release GHG emissions by using fossil fuel-powered equipment, crop cultivation and harvesting, fertilizer application, and livestock operations. Large-scale crop production requires heavy machinery, which often runs on gasoline, diesel, or natural gas. Emissions from that aspect of agriculture are calculated as part of the outdoor equipment sector. Soil tilling and harvesting crops also releases GHG emissions as it releases the carbon that was stored in the vegetation and its soil. Industrial farming tends to rely on annual crop rotation and heavy tilling, which disturbs the soil and the carbon stored within it. Finally, the widespread use of synthetic fertilizers on crops produces nitrous oxide, a potent GHG.

Agriculture is central to Salinas' economy but reducing its associated GHG emissions and environmental impacts is important for supporting both community health and long-term resilience to climate hazards. The strategies in this section aim to find a balance between supporting agricultural operations for economic purposes and reducing associated GHG emissions to support public health. This can include planting vegetative buffers around farms and fields to help filter air pollutants, capture dust, and protect local waterways from pesticide and fertilizer run-off. Buffers keep urban land uses separate from agricultural ones, adding a layer of protection between residents and pesticides and fertilizers. This is especially important for vulnerable populations, which include those with pre-existing health conditions, children, and older adults. The City will need to seek collaboration with growers in the area to reduce pesticide and fertilizer use overall.

Promoting more sustainable forms of farming, such as organic and regenerative farming, can reduce GHG emissions from agricultural operations as these methods rely on less pesticide and fertilizer use and less soil disturbance. With less soil disturbance, farms can act as carbon sinks instead of sources of emissions. By partnering with the agricultural community, the City can encourage practices that reduce water use, improve soil quality, and expand opportunities for carbon sequestration on farmland within city limits. Practices

such as cover cropping, reduced tillage, compost application, and efficient irrigation not only cut emissions but also build healthier soils that are more resilient to drought.

The City can build partnerships with growers, research institutions, and local and regional organizations to pilot and expand climate-friendly practices across the industry. At the same time, Salinas can work with community organizations, workers, and employers to ensure farm workers are protected from climate-related health risks such as extreme heat and wildfire smoke. Supporting growers in accessing State and federal grant funding for climate adaptation projects, such as regenerative agriculture and conservation management, will further accelerate the adoption of practices that sequester carbon, reduce GHG emissions, and strengthen the resilience of Salinas' agricultural economy.

## Goal: Sustainable agriculture practices support community and ecosystem health and well-being.

### Strategy 16: Reduce health and environmental impacts of agricultural operations.

This strategy aims to reduce the GHG emissions from agricultural operations and the associated public health impacts due to pesticide and fertilizer use. The actions propose planting buffers around agricultural areas to reduce pesticide and fertilizer drift into nearby urban areas and collaborating with local farmers to reduce their use of harmful pesticides.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | Supportive | Supportive | Supportive |

### Community Benefits:

Conserves resources

Enhances community resilience

Improves air quality

Improves ecosystem health

Improves public health

Supports local economy

**Timeframe:** Mid-term (2027-2035)

**Responsible Parties:** Community Development Department

**Supporting Parties:** Monterey County Office of the Agricultural Commissioner

## Implementation Actions

### Regulations and Policies

16-1 Plant buffers around agricultural operations to protect local air and water quality.

### Community Partnerships

16-2 Work with local agricultural operations to reduce pesticide use.

## Strategy 17: Promote agricultural resiliency.

This strategy aims to strengthen the resiliency of Salinas' agricultural industry while reducing associated GHG emissions and environmental impacts. The actions focus on supporting growers in adopting regenerative practices that improve soil health and sequester carbon, partnering with the agricultural community to conserve water and expand climate-smart farming, and collaborating with research and community organizations to protect agricultural workers from climate hazards.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | Supportive | Supportive | Supportive |

### Community Benefits:

Conserves resources

Enhances community resilience

Improves air quality

Improves ecosystem health

Improves public health

Supports local economy

**Timeframe:** Long-term (2035 or beyond)

**Responsible Parties:** Community Development Department

**Supporting Parties:** Monterey County Office of the Agricultural Commissioner, community organizations

## Implementation Actions

### Regulations and Policies

17-1 Support and facilitate growers' efforts to receive grant funding for climate change adaptation projects, including regenerative agricultural practices and conservation management practices that sequester carbon, reduce GHG emissions, and improve soil health.

### Community Partnerships

17-2 Partner with the local and regional agricultural community and research organizations to reduce water use, improve soil quality, and expand opportunities for carbon sequestration on agricultural lands within city limits.

17-3 Partner with community organizations, workers, and employers to develop and implement strategies to protect agricultural workers in Salinas from the impacts of climate change.

# CITY OPERATIONS

Government operations are another important source of greenhouse gas (GHG) emissions in Salinas. Energy use in municipal buildings, the operation of City vehicles and equipment, and the resources used to provide services all contribute to the City's GHG emissions. Streetlights, water use, and facility operations add to electricity demand, while gas- and diesel-powered City fleet vehicles and landscaping equipment produce direct emissions from burning fossil fuels.

As the largest employer and service provider in Salinas, the City government also plays a critical role in modeling climate leadership. By reducing resource use, transitioning to clean energy sources, and adopting sustainable purchasing and waste practices, the City can both lower GHG emissions and set an example for the broader community. These efforts demonstrate how public agencies can lead by example in advancing climate action while improving efficiency and reducing long-term costs.

Reducing emissions from government operations has additional community benefits. Investments in energy efficiency and renewable energy can lower operating costs and improve energy resilience, while electric fleet vehicles and equipment reduce air and noise

pollution. Partnerships with local schools and community organizations can improve community resilience. Together, these efforts not only cut emissions but also build a more resilient and efficient city.

## Goal: The City of Salinas serves as a climate leader.

### Strategy 18: Reduce resource use and GHG emissions from municipal operations.

This strategy aims to reduce GHG emissions from municipal operations and demonstrate climate leadership by the City of Salinas. The actions focus on retrofitting City government facilities to be all-electric and efficient, transitioning the vehicle fleet and equipment to zero-emission alternatives, and expanding renewable energy generation on municipal properties. Additional actions include implementing green purchasing policies, improving recycling and composting at City facilities and events, supporting employee sustainable transportation choices, and collaborating with regional partners to promote climate resilience and equity.

| | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| GHG Reductions | Supportive | Supportive | Supportive |

**Community Benefits:**


Conserves resources


Enhances equity


Enhances community resilience


Improves air quality


Improves energy resilience


Improves hazard resilience


Improves public health

**Timeframe:** Long-term (2035 or beyond)

**Responsible Parties:** Community Development Department

**Supporting Parties:** Public Works, City Manager, Hartnell College

## Implementation Actions

### Municipal Operations

18-1 Improve energy and water performance of City facilities through electrification retrofits, efficiency upgrades, energy and water audits, solar energy generation and storage installation (including microgrids), and LED lighting replacement.

18-2 Implement sustainable municipal operations practices, including green purchasing policies, comprehensive recycling and composting programs at City facilities and events, and sustainable landscaping practices.

18-3 Require new City vehicles to be zero-emission if a viable vehicle is available. Transition to an all-electric City vehicle fleet by 2035 and ensure adequate EV charging infrastructure at City facilities.

18-4 Provide incentives to City employees to encourage carpooling, using transit, or purchasing a ZEV.

18-5 Implement an electric-first policy for replacing City-owned landscaping and industrial equipment.

18-6 Participate in local and regional initiatives to protect and restore ecosystems, manage and conserve water resources, reduce GHG emissions, improve community resilience to climate change, and promote equity, including implementation of the Monterey County Community Resilience Plan.

18-7 Support State and regional efforts to develop new insurance products to provide a safety net to offset outdoor workers' salaries during extreme heat or poor air quality days if they must miss work.

18-8 Advocate for State policies and budget appropriations to reduce GHG emissions and promote resilience and equity.

18-9 Share lessons learned from climate and resilience initiatives with other communities in the region.

18-10 Partner with Hartnell College to develop programs to diversify and upskill the local workforce to support regional climate resilience projects.

## 3.4 Adaptation Strategies

Climate change is already affecting Salinas, and impacts will intensify even with successful efforts to reduce GHG emissions. While mitigation strategies address the root causes of climate change by reducing emissions, adaptation strategies prepare the community for climate impacts that are already occurring or are unavoidable in the future. These strategies focus on building resilience to climate hazards, protecting vulnerable populations, and strengthening critical infrastructure and community services.

### BUILDING COMMUNITY RESILIENCE IN SALINAS

Salinas faces a range of climate hazards that require a comprehensive adaptation approach. The City's Climate Change Vulnerability Assessment identified nine primary climate hazards affecting the community, although these impacts are not equal. Vulnerable populations, including agricultural workers, low-income households, children, seniors, and linguistically isolated communities, face disproportionate risks and often have fewer resources to prepare for and recover from climate impacts. Section 2.2 of this CAP provides greater detail about the Vulnerability Assessment and its findings.

The adaptation strategies in this section build on Salinas' current emergency management and community resources while addressing specific climate vulnerabilities identified in the assessment. These strategies recognize that effective climate adaptation requires not just infrastructure improvements, but also building stronger community connections and support systems, improving access to resources, and ensuring that all residents can protect themselves and their families during extreme weather events.

Salinas' agricultural economy and diverse population create both unique challenges and opportunities for adaptation. Many residents work in occupations with high exposure to climate hazards, particularly extreme heat and poor air quality. At the same time, the community has strong social networks and neighborhood connections that can be leveraged to support resilience efforts. The strategies in this section aim to build on these strengths while addressing gaps in preparedness and protection.

## Goal: Salinas is resilient to the impacts of climate change.

### Strategy 19: Make resilience resources accessible across the community.

This strategy establishes a network of community-based resilience resources to help residents prepare for, respond to, and recover from climate-related emergencies. By creating accessible resilience centers, expanding emergency preparedness programs, and providing multilingual resources, this strategy ensures that all community members have access to life-saving resources before and during hazard events. The strategy builds on existing community assets and enhances trusted gathering places to create a distributed network of support that can respond quickly to emerging needs.

**What is a Resilience Center?**

A **resilience center**, as defined by the Urban Sustainability Directors Network, is a community-serving facility augmented to support residents and coordinate resource distribution and services before, during, or after a natural hazard event.

### Community Benefits:

Enhances community resilience

Enhances equity

Improves hazard resilience

Improves public health

## Relevant Hazards:

Agriculture and ecosystem pests

Extreme heat and warm nights

Flooding

Severe weather

Wildfire smoke and poor air quality

## Affected Populations and Assets:

- Children under 10
- Seniors (65+)
- Outdoor workers
- Low-income households and cost-burdened households
- Linguistically isolated persons and immigrant communities
- Persons experiencing homelessness
- Households without air conditioning
- Community centers, libraries, and schools

**Timeframe:** Mid-term (2027-2035) for center establishment and program expansion; ongoing for operations and community outreach

**Responsible Parties:** City of Salinas Emergency Services and Community Development Department

**Supporting Parties:** Parks and Recreation, Monterey County Office of Emergency Services, Community Emergency Response Team (CERT), community organizations

## Implementation Actions:

### Regulations and Policies:

19-1 Establish community resilience centers at trusted and equitably distributed community gathering places to serve as cooling and clean air centers to be operated during extreme heat and poor air quality events.

### Education and Outreach:

19-2 Continue to operate and expand the capacity of local CERT programs, including City staff training.

19-3 Provide multilingual guidance and resources on how to prepare for emergencies and disasters via social media and local news sources and at libraries, community centers, schools, and other government and community facilities.

### Community Partnerships:

19-4 Establish outreach programs to identify vulnerable neighbors, conduct wellness checks, and help distribute resources before, during, and after a disaster or extreme weather event.

## Strategy 20: Facilitate evacuation and shelter in the event of an emergency.

This strategy promotes safe evacuation and shelter access for all residents during natural disasters and other emergencies, with particular attention to people who may have challenges evacuating. By updating emergency response plans, coordinating with transportation providers, and ensuring adequate shelter capacity, this strategy addresses critical gaps in planning and conducting evacuations that could leave residents stranded or without safe refuge during extreme weather events or other climate-related disasters.

### Community Benefits:

Enhances community resilience

Enhances equity

Improves hazard resilience

Improves public health

## Relevant Hazards:

Extreme heat and warm nights

Emergent groundwater

Flooding

Severe weather

Wildfire smoke and poor air quality

## Affected Populations/Assets:

- Persons with limited mobility or disabilities
- Households without vehicle access
- Persons experiencing homelessness
- Linguistically isolated persons and immigrant communities
- Low-income households and cost-burdened households
- Emergency services infrastructure
- Transportation systems

**Timeframe:** Near-term (2026-2027) for plan updates and coordination agreements; ongoing for implementation and training.

**Responsible Parties:** City of Salinas Emergency Services

**Supporting Parties:** Monterey County Office of Emergency Services, Monterey-Salinas Transit, local social service providers, community organizations.

## Implementation Actions

### Regulations and Policies

20-1 Regularly update the City's Emergency Response Plan and share the plan with the community.

### Community Partnerships

20-2 Coordinate with community organizations and transportation service agencies to develop an evacuation assistance plan to support people with limited mobility or that lack access to a personal vehicle in the event of an emergency or hazard event, such as an extreme heat event.

20-3 Coordinate with local social service providers to ensure that shelters are available for people experiencing homelessness during extreme events and other highly hazardous conditions.

## Strategy 21: Improve the structural integrity of homes, workplaces, and infrastructure to prevent damage from severe weather, including flooding, wind, and extreme heat.

This strategy strengthens the physical infrastructure that protects residents by improving both public infrastructure and private facilities and supports community functions during climate emergencies. By helping residents weatherize their homes, improving flood-control systems, and ensuring critical facilities have backup power, this strategy reduces the risk of property damage, service disruptions, and injuries during extreme weather events. The strategy prioritizes assistance for vulnerable residents while also addressing community-wide infrastructure needs.

## Community Benefits:

Enhances equity

Improves energy resilience

Improves hazard resilience

Improves public health

Reduces cost of living

## Relevant Hazards:

Extreme heat and warm nights

Drought

Flooding

Severe weather

## Affected Populations/Assets:

- Residents of older housing stock and mobile home parks
- Cost-burdened and low-income households
- Critical transportation, electrical transmission, and flood-control infrastructure
- Emergency facilities and shelters
- Commercial and industrial facilities

**Timeframe:** Ongoing, with priority actions in near-term (2026-2027)

**Responsible Parties:** City of Salinas Public Works Department

**Supporting Parties:** Community Development Department, Monterey County Office of Emergency Services, handlers of hazardous materials

## Implementation Actions

### Education and Outreach

21-1 Perform targeted outreach to residents of older structures and mobile home parks, regarding weatherization techniques and available financial assistance for improving home resilience.

### Municipal Operations

21-2 Develop programs to deliver sandbags in cases where building occupants are unable to collect sandbags themselves in advance of flooding.

21-3 Establish a system to allow residents to notify the City about local hazard conditions and/or infrastructure that need repair.

21-4 Install backup power resources at City facilities, emergency shelters, community resilience centers, and other critical facilities.

### Regulations and Policies

21-5 Update the Code of Ordinances as necessary to address hazards posed by flooding and emergent groundwater.

21-6 Implement cool roofs and cool pavement at City facilities and public spaces.

### Community Partnerships

21-7 Work with handlers of hazardous materials to reduce the risk of hazardous material release during a flood or other disaster.

21-8 Pursue funding to maintain and improve flood-control infrastructure.

## PRIORITY ACTIONS FOR IMPLEMENTATION

The adaptation strategies outlined herein represent a comprehensive approach to building climate resilience in Salinas. However, given limited resources and the urgency of climate action, the City will prioritize implementation of actions that provide the greatest benefit to the most vulnerable populations and address the most immediate risks.

Near-term priorities (2025-2027) include:

- Establishing the first community resilience centers in high-priority neighborhoods.
- Updating emergency response plans to address climate-specific evacuation and shelter needs.
- Installing backup power at critical facilities.
- Expanding multilingual emergency preparedness resources.

These adaptation strategies work in concert with the mitigation strategies outlined in Section 3.3 to create a comprehensive climate response that both reduces future climate risks and prepares the community for unavoidable impacts. Together, they position Salinas to protect its residents, maintain essential services, and continue to thrive in the face of a changing climate.

# 3.5 Target Achievement

In total, the strategies in this CAP are projected to reduce Salinas' GHG emissions to 385,790 $MTCO_2e$ by 2030, 250,320 $MTCO_2e$ by 2040, and 119,930 $MTCO_2e$ by 2045, as shown in **Table 7**. Full implementation of the strategies in this CAP enables the community to meet its GHG emission reduction targets for 2030, 2040, and 2045. It is likely that new policies and regulations, technologies, personal and economic behaviors and preferences, and other factors will emerge in future years that will impact GHG emissions. These changes cannot be accurately forecasted in the CAP, but they may support GHG emissions reductions beyond the levels identified here. Future updates to the CAP will be able to better assess emerging trends and unexpected changes and include them as part of the City's GHG reduction strategy as appropriate. Future revisions to the CAP may include more stringent GHG reduction targets as they are feasible and appropriate.

**Table 7: GHG Emissions from Reduction Strategies Compared to Targets**

| | 2030 GHG Emissions ($MTCO_2e$) | 2040 GHG Emissions ($MTCO_2e$) | 2045 GHG Emissions ($MTCO_2e$) |
|---|---|---|---|
| Emissions without CAP | 623,580 | 714,630 | 768,250 |
| GHG Emission Reduction Targets | 389,050 | 259,360 | 129,680 |
| Emissions with CAP | 385,790 | 250,320 | 119,930 |
| Reductions Beyond Targets | 3,260 | 9,040 | 9,750 |

# 4. Implementing the CAP

The success of Salinas' CAP depends on effective implementation that translates strategies into concrete actions and measurable results. While the CAP establishes ambitious goals for reducing GHG emissions and building climate resilience, achieving these objectives requires dedicated resources, coordinated effort across City departments, sustained community engagement, and systematic monitoring of progress.

Successful CAP implementation requires addressing several key areas. First, the City must secure adequate funding for action implementation. Climate action initiatives need sustained financial investment, which Salinas can obtain through municipal budgets, federal and State grants, partnerships with utilities like 3CE, and creative financing approaches. The City will actively pursue opportunities through programs like the federal Inflation Reduction Act and California's climate funding programs to maximize available resources.

Second, the City must track progress regularly to ensure the CAP is working – that community-wide GHG emissions are declining and that the community is increasing its resilience to climate change impacts. By monitoring GHG emission reductions and adaptation outcomes, City staff can identify which strategies deliver the best results and where additional work is needed. When monitoring shows Salinas is falling short of its targets, the City can respond by expanding successful programs, adjusting approaches that are not working well, or adopting new technologies and practices as they become available.

Third, flexibility for adaptation strategies is particularly important given the inherent uncertainty of climate projections. The CAP employs an adaptation pathways approach, which means strategies can be adjusted over time as climate impacts become clearer and community needs evolve. This allows Salinas to start with sensible actions to start, while maintaining the flexibility to implement more intensive measures if climate impacts prove more severe than anticipated.

This chapter outlines the framework for putting the CAP into action. It identifies the implementation strategies needed to enact the plan's mitigation and adaptation measures, establishes monitoring and reporting protocols, and provides guidance on securing the resources necessary for long-term success.

## 4.1 Monitoring and Reporting

Effective implementation of the CAP requires clear accountability mechanisms, performance tracking, and regular communication with the community about progress and challenges. This section establishes the framework for ongoing monitoring and adaptive management of the CAP.

The City will track progress on CAP implementation through multiple approaches, including monitoring of individual strategy performance, tracking of community-wide GHG emissions, and assessment of climate adaptation outcomes. Regular reporting will ensure transparency and provide opportunities for course corrections as needed.

Performance metrics for each strategy are designed to measure both implementation progress (such as number of programs launched or policies adopted) and outcomes (such as estimated GHG reductions or number of residents served). These metrics will help identify which strategies are most effective and where additional effort or resources may be needed.

The City will prepare annual progress reports for the City Council and community that highlight key achievements, challenges encountered, and adjustments made to implementation approaches. These reports will include updates on estimated GHG emissions reductions, progress toward reduction targets, and assessment of climate adaptation outcomes.

The CAP is intended to be a dynamic document that evolves as technology advances, new information becomes available, and initial strategies are implemented. Regular monitoring and reporting on progress will help track the effectiveness of the CAP strategies and identify areas where adjustments may be needed. The City will conduct a comprehensive review and update of the CAP within five years of adoption to incorporate new technologies, policy developments, and lessons learned from implementation. This review will also assess the adequacy of current targets and strategies in light of evolving State requirements and climate science.

# IMPLEMENTATION DETAILS

The implementation of CAP strategies requires coordination across multiple City departments and with numerous external partners. **Table 8** provides detailed information on implementation responsibilities, timelines, resource requirements, and performance metrics for each strategy in the CAP.

### Table 8: CAP Implementation Details

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| Building Energy | | | | | |
| Strategy 1: Retrofit existing buildings and facilities to reduce energy use, reduce reliance on non-renewable fuels, and improve comfort. | | | | | |
| 1.1 | Encourage cool roofs and light-colored, nonreflective permeable paving materials as part of retrofit, repair, and replacement activities, using recycled materials or other materials with low embedded carbon. Consider offering incentives to property owners that adopt these measures. | Community Development Department | City Manager, PG&E, 3CE, Housing Division, community organizations | General Fund, grants | Ongoing |
| 1.2 | Encourage replacement and new water heaters and space heating and cooling systems with electric models. Partner with 3CE and PG&E to provide incentives for electric panel upgrades and electrification retrofits in all property types, with priority for affordable housing and buildings in disadvantaged communities and other underserved areas. | Community Development Department | City Manager, PG&E, 3CE, Housing Division, community organizations | General Fund, grants | Ongoing |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 1.3 | Partner with 3CE and PG&E to provide educational programming and materials, contractor and electrician training, free or low-cost energy audits, and promotion of financial incentives for electrification and energy efficiency retrofits in existing buildings. | Community Development Department | City Manager, PG&E, 3CE, Housing Division, community organizations | General Fund, grants | Ongoing |
| 1.4 | Partner with the Housing Services Program administered by the Housing Division to implement energy efficiency home renovations for qualifying property owners. | Community Development Department | City Manager, PG&E, 3CE, Housing Division, community organizations | General Fund, grants | Ongoing |
| 1.5 | Partner with community organizations, and landlords to incentivize electrification and energy efficiency retrofits in rental properties, especially for affordable housing and buildings in disadvantaged communities and other underserved areas. | Community Development Department | City Manager, PG&E, 3CE, Housing Division, community organizations | General Fund, grants | Ongoing |
| 1.6 | Evaluate and implement financing mechanisms (such as on-bill financing, PACE programs, or revolving loan funds) to support electrification and energy efficiency retrofits. . | Community Development Department | City Manager, PG&E, 3CE, Housing Division, community organizations | General Fund, grants | Ongoing |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| Strategy 2: Accelerate all-electric and energy-efficient construction of new buildings. | | | | | |
| 2.1 | Explore establishing a reach code that exceeds the California Building Standards Code for all or certain types of new construction, which requires the use of less-carbon intensive energy sources, to achieve higher levels of energy conservation and efficiency. | Community Development Department | City Manager, 3CE, PG&E | General Fund | Ongoing |
| 2.2 | Streamline the land use permitting process and/or identify other incentives for project applicants of affordable housing developments and developments in disadvantaged communities and other underserved areas that are designed to exceed the State's building and energy codes in terms of electrification and energy efficiency. | Community Development Department | City Manager, 3CE, PG&E | General Fund | Ongoing |
| 2.3 | Partner with 3CE and PG&E to promote the financial benefits of electrification and expand incentives for electrification, especially for developers of affordable housing. | Community Development Department | City Manager, 3CE, PG&E | General Fund | Ongoing |
| Strategy 3: Increase access to solar energy and energy storage systems community-wide. | | | | | |
| 3.1 | Require multifamily developments to have solar arrays. | Community Development Department | City Manager, Public Works Department, 3CE, PG&E, community organizations | General Fund | Mid-term (2027-2035) |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 3.2 | Encourage installing solar arrays with energy storage systems at parking lots, education facilities, community facilities, and other public buildings not owned by the City. | Community Development Department | City Manager, Public Works Department, 3CE, PG&E, community organizations | General Fund | Mid-term (2027-2035) |
| 3.3 | In partnership with 3CE and PG&E, develop and implement outreach and support for solar energy adoption, including information about financial incentives and financing options, multilingual educational materials, navigation assistance for permitting and installation processes, and mechanisms to support renters in advocating for solar systems. | Community Development Department | City Manager, Public Works Department, 3CE, PG&E, community organizations | General Fund | Mid-term (2027-2035) |
| 3.4 | Evaluate feasible locations for solar arrays and energy storage, including as part of microgrids, on City-owned buildings, parking lots, and infrastructure. | Community Development Department | City Manager, Public Works Department, 3CE, PG&E, community organizations | General Fund | Mid-term (2027-2035) |
| 3.5 | Partner with community organizations to develop clear, easy to understand, and multilingual materials and communication methods to support residents in navigating the processes for financing and installing solar arrays and energy storage at their homes. | Community Development Department | City Manager, Public Works Department, 3CE, PG&E, community organizations | General Fund | Mid-term (2027-2035) |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| Strategy 4: Expand opportunities for renewable energy on farms and agricultural energy production. | | | | | |
| 4.1 | Work with local agricultural businesses, county partners, and advocacy groups to support renewable energy generation and electric equipment adoption on agricultural lands within city limits without compromising the productivity and integrity of important farmlands. | Community Development Department | Monterey County Office of the Agricultural Commissioner, local agricultural businesses | General Fund, grants, partner agencies | Mid-term (2027-2035) |
| 4.2 | Support and facilitate growers' efforts to receive state and federal financial incentives for renewable energy production or use on farms. | Community Development Department | Monterey County Office of the Agricultural Commissioner, local agricultural businesses | General Fund, grants, partner agencies | Mid-term (2027-2035) |
| Land Use | | | | | |
| Strategy 5: Promote infill development to reduce long commute times and vehicle miles traveled | | | | | |
| 5.1 | Reduce or waive permit fees to encourage the construction of Accessory Dwelling Units (ADUs), including exploring incentives for ADUs that are zero-net energy or all-electric. | Community Development Department | City Manager | General Fund | Ongoing |
| 5.2 | Incentivize diverse housing types and increased density near transit, employment centers, and community amenities through multiple mechanisms including reduced development fees, changes to zoning, expedited permitting, reduced parking minimums, | Community Development Department | City Manager | General Fund | Ongoing |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| | improved transit connectivity and support for mixed-use development, live-work spaces, and missing middle housing. | | | | |
| **Transportation and Outdoor Equipment** | | | | | |
| Strategy 6: Expand public transit services to provide a feasible alternative to single-occupancy vehicles. | | | | | |
| 6.1 | When undertaking roadway improvements, ensure that they support transit services through design features such as dedicated bus lanes, transit priority signals, and bus pullouts. | Community Development Department | Public Works, Monterey-Salinas Transit, school districts | General Fund, grants, partner agencies | Mid-term (2027-2035) |
| 6.2 | In partnership with Monterey-Salinas Transit, expand transit accessibility and affordability through programs such as Universal Basic Mobility, employer transit pass programs, and other subsidy initiatives for low-income individuals. Support regional transit expansion projects including the SURF! Busway and Bus Rapid Transit project, and future Amtrak and Caltrain expansion in Salinas. | Community Development Department | Public Works, Monterey-Salinas Transit, school districts | General Fund, grants, partner agencies | Mid-term (2027-2035) |
| 6.3 | Work with Monterey-Salinas Transit to expand the coverage of bus lines, expand operational hours of bus services, increase bus frequency, improve rider comfort and accessibility, and keep costs low for riders. | Community Development Department | Public Works, Monterey-Salinas Transit, school districts | General Fund, grants, partner agencies | Mid-term (2027-2035) |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 6.4 | Support efforts by local school districts to support expansion of school bus service areas and conversion of diesel school buses to electric. | Community Development Department | Public Works, Monterey-Salinas Transit, school districts | General Fund, grants, partner agencies | Mid-term (2027-2035) |
| Strategy 7: Make active transportation affordable, safe, fun, and easy. | | | | | |
| 7.1 | Provide incentives for residents looking to purchase bicycles, including electric bicycles. | Community Development Department | Public Works, Monterey-Salinas Transit, Transportation Agency for Monterey County, Ecology Action | General Fund, grants, partner agencies | Mid-term (2027-2035) |
| 7.2 | Organize community bike safety and bike repair events. | Community Development Department | Public Works, Monterey-Salinas Transit, Transportation Agency for Monterey County, Ecology Action | General Fund, grants, partner agencies | Mid-term (2027-2035) |
| 7.3 | Maintain or expand resource commitments to implement the City's Vision Zero Action Plan, Pavement Management Program Active Transportation Plan, and the Monterey Bay Sanctuary Scenic Trail Network Master Plan to ensure safe conditions for walking and biking, expand and upgrade the City's bike and sidewalk network, and ensure investments yield resilience co-benefits such as shading in areas prone to extreme heat. | Community Development Department | Public Works, Monterey-Salinas Transit, Transportation Agency for Monterey County, Ecology Action | General Fund, grants, partner agencies | Mid-term (2027-2035) |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 7.4 | Continue to support implementation of the Salinas Safe Routes to School Program in partnership with the Transportation Agency for Monterey County and Ecology Action. | Community Development Department | Public Works, Monterey-Salinas Transit, Transportation Agency for Monterey County, Ecology Action | General Fund, grants, partner agencies | Mid-term (2027-2035) |
| 7.5 | Partner with bikeshare or shared micromobility providers to close first/last mile gaps between destinations and public transit stops. | Community Development Department | Public Works, Monterey-Salinas Transit, Transportation Agency for Monterey County, Ecology Action | General Fund, grants, partner agencies | Mid-term (2027-2035) |
| Strategy 8: Reduce commute-related vehicle miles traveled (VMT). | | | | | |
| 8.1 | Require large employers to establish Transportation Demand Management (TDM) programs and encourage smaller employers to adopt similar programs or participate in the existing TAMC Go831 Rideamigos program | Community Development Department | Public Works, City Manager, Monterey-Salinas Transit, Amtrak | General Fund | Mid-term (2027-2035) |
| 8.2 | Support flexible work hours, telecommuting, and regional carpool programs (such as Go831 Rideamigos) for City employees. | Community Development Department | Public Works, City Manager, Monterey-Salinas Transit, Amtrak | General Fund | Mid-term (2027-2035) |
| 8.3 | Work with Monterey-Salinas Transit and Amtrak to reduce costs and improve accessibility for commuters. | Community Development Department | Public Works, City Manager, Monterey-Salinas Transit, Amtrak | General Fund | Mid-term (2027-2035) |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| Strategy 9: Accelerate the transition to zero-emission vehicles and equipment. | | | | | |
| 9.1 | Explore opportunities to reduce charging costs for low-income residents and ensure charging ports are available in low-income neighborhoods. | Community Development Department | Public Works, City Manager, Monterey-Salinas Transit, community organizations, local businesses, agricultural businesses | General Fund, grants, partner agencies | Near-term (2026-2027) |
| 9.2 | Explore opportunities to install curbside electric vehicle charging infrastructure in commercial areas and at City facilities for public access. | Community Development Department | Public Works, City Manager, Monterey-Salinas Transit, community organizations, local businesses, agricultural businesses | General Fund, grants, partner agencies | Near-term (2026-2027) |
| 9.3 | Encourage the adoption of electric landscaping and construction equipment. | Community Development Department | Public Works, City Manager, Monterey-Salinas Transit, community organizations, local businesses, agricultural businesses | General Fund, grants, partner agencies | Near-term (2026-2027) |
| 9.4 | Advocate for a more resilient electricity grid to support EV proliferation through advancements like energy storage and smart grid systems. | Community Development Department | Public Works, City Manager, Monterey-Salinas Transit, community organizations, local businesses, agricultural businesses | General Fund, grants, partner agencies | Near-term (2026-2027) |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 9.5 | Run community test drive events for zero emission vehicles. | Community Development Department | Public Works, City Manager, Monterey-Salinas Transit, community organizations, local businesses, agricultural businesses | General Fund, grants, partner agencies | Near-term (2026-2027) |
| 9.6 | Provide education on financing and rebates available for the purchase of EVs and installation of vehicle chargers. | Community Development Department | Public Works, City Manager, Monterey-Salinas Transit, community organizations, local businesses, agricultural businesses | General Fund, grants, partner agencies | Near-term (2026-2027) |
| 9.7 | Work with community groups to design and implement electric car sharing programs, focusing on areas with high residential density, low-income residents, and limited transportation options. | Community Development Department | Public Works, City Manager, Monterey-Salinas Transit, community organizations, local businesses, agricultural businesses | General Fund, grants, partner agencies | Near-term (2026-2027) |
| 9.8 | Partner with local businesses to encourage installation of chargers for light-duty vehicles at major parking lots and employment centers, and for heavy-duty vehicles at nearby truck rest stops and warehouses. | Community Development Department | Public Works, City Manager, Monterey-Salinas Transit, community organizations, local businesses, agricultural businesses | General Fund, grants, partner agencies | Near-term (2026-2027) |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 9.9 | Work with agricultural businesses to accelerate the adoption of electric agricultural equipment. | Community Development Department | Public Works, City Manager, Monterey-Salinas Transit, community organizations, local businesses, agricultural businesses | General Fund, grants, partner agencies | Near-term (2026-2027) |
| **Strategy 10: Reduce water use in buildings and urban landscapes.** | | | | | |
| 10.1 | Continue to implement the provisions of the City's water conservation ordinance. | Community Development Department | Public Works, schools, community organizations, Central Coast Greywater Alliance, Water Awareness Committee, and Monterey Bay Friendly Landscaping | General Fund, grants, partner agencies | Ongoing |
| 10.2 | Provide development incentives for new development that exceeds State code in terms of water efficiency. | Community Development Department | Public Works, schools, community organizations, Central Coast Greywater Alliance, Water Awareness Committee, and Monterey Bay Friendly Landscaping | General Fund, grants, partner agencies | Ongoing |
| 10.3 | Provide financial incentives for installation of water-efficient fixtures and appliances, greywater systems, and drought-tolerant landscaping. | Community Development Department | Public Works, schools, community organizations, Central Coast Greywater Alliance, Water Awareness Committee, and | General Fund, grants, partner agencies | Ongoing |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| | | | Monterey Bay Friendly Landscaping | | |
| 10.4 | Provide training and educational materials for landscapers on how to conserve water. | Community Development Department | Public Works, schools, community organizations, Central Coast Greywater Alliance, Water Awareness Committee, and Monterey Bay Friendly Landscaping | General Fund, grants, partner agencies | Ongoing |
| 10.5 | Support the development of the City's Long Term Water Strategy and identify city-wide opportunities for rainwater catchment and reuse. | Community Development Department | Public Works, schools, community organizations, Central Coast Greywater Alliance, Water Awareness Committee, and Monterey Bay Friendly Landscaping | General Fund, grants, partner agencies | Ongoing |
| 10.6 | Develop and implement comprehensive water conservation education and outreach through partnerships with schools, community groups, and regional organizations such as Central Coast Greywater Alliance, Water Awareness Committee, and Monterey Bay Friendly Landscaping to promote installation of rainwater catchment systems, greywater systems, water- | Community Development Department | Public Works, schools, community organizations, Central Coast Greywater Alliance, Water Awareness Committee, and Monterey Bay Friendly Landscaping | General Fund, grants, partner agencies | Ongoing |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| | efficient fixtures and appliances, and drought-tolerant landscaping. | | | | |
| Strategy 11: Ensure the long-term stability and quality of Salinas' water supply. | | | | | |
| 11.1 | Expand investment in groundwater monitoring and remediation as necessary. | Community Development Department | Public Works, Monterey County Groundwater Sustainability Agency, Salinas Valley Basin Groundwater Sustainability Agency, Pajaro Valley Water Management Agency, agricultural businesses, construction industry representatives, community organizations | General Fund, grants, partner agencies | Ongoing |
| 11.2 | Integrate forecasts of groundwater emergence into land use and transportation planning decisions. | Community Development Department | Public Works, Monterey County Groundwater Sustainability Agency, Salinas Valley Basin Groundwater Sustainability Agency, Pajaro Valley Water Management Agency, agricultural businesses, construction industry representatives, community organizations | General Fund, grants, partner agencies | Ongoing |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 11.3 | Explore the use of recycled water throughout Salinas. | Community Development Department | Public Works, Monterey County Groundwater Sustainability Agency, Salinas Valley Basin Groundwater Sustainability Agency, Pajaro Valley Water Management Agency, agricultural businesses, construction industry representatives, community organizations | General Fund, grants, partner agencies | Ongoing |
| 11.4 | Install green infrastructure in Salinas and provide education and outreach to the community about the benefits of green infrastructure. | Community Development Department | Public Works, Monterey County Groundwater Sustainability Agency, Salinas Valley Basin Groundwater Sustainability Agency, Pajaro Valley Water Management Agency, agricultural businesses, construction industry representatives, community organizations | General Fund, grants, partner agencies | Ongoing |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 11.5 | Replace non-permeable paving with permeable surfaces on City-owned property in areas above the aquifer and incentivize private property owners to as well. | Community Development Department | Public Works, Monterey County Groundwater Sustainability Agency, Salinas Valley Basin Groundwater Sustainability Agency, Pajaro Valley Water Management Agency, agricultural businesses, construction industry representatives, community organizations | General Fund, grants, partner agencies | Ongoing |
| 11.6 | Collaborate with regional water management agencies and stakeholders to monitor, conserve, and protect groundwater resources, including maintaining existing partnerships with Monterey County Groundwater Sustainability Agency, Salinas Valley Basin Groundwater Sustainability Agency, Pajaro Valley Water Management Agency, agricultural businesses, the construction industry, and community groups. | Community Development Department | Public Works, Monterey County Groundwater Sustainability Agency, Salinas Valley Basin Groundwater Sustainability Agency, Pajaro Valley Water Management Agency, agricultural businesses, construction industry representatives, community organizations | General Fund, grants, partner agencies | Ongoing |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| Solid Waste | | | | | |
| Strategy 12: Increase diversion of compostable and recyclable materials from landfills. | | | | | |
| 12.1 | Partner with the Salinas Valley Solid Waste Authority to ensure that food composting and recycling containers and collection areas are provided at all residential and multifamily units, rental properties, community gathering places, and businesses. | Community Development Department | Salinas Valley Solid Waste Authority | General Fund | Ongoing |
| 12.2 | Ensure businesses are using biodegradable, compostable, or recyclable food service-ware, as required by the City of Salinas Municipal Code. | Community Development Department | Salinas Valley Solid Waste Authority | General Fund | Ongoing |
| 12.3 | Partner with the Salinas Valley Solid Waste Authority and other partners to increase food diversion and separation programs, expand composting infrastructure, support composting education and giveaway programs, and expand compost use and availability community-wide, especially for local farms. | Community Development Department | Salinas Valley Solid Waste Authority | General Fund | Ongoing |
| 12.4 | Host special events for collection and recycling of electronic waste, hazardous waste, bulky items, and other special waste types. | Community Development Department | Salinas Valley Solid Waste Authority | General Fund | Ongoing |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 12.5 | Promote and support programs to provide free of charge pre-scheduled curbside collections of bulky items and specialty waste. | Community Development Department | Salinas Valley Solid Waste Authority | General Fund | Ongoing |
| 12.6 | Continue to partner with the Salinas Valley Solid Waste Authority to host compost training workshops and compost giveaways. | Community Development Department | Salinas Valley Solid Waste Authority | General Fund | Ongoing |
| **Strategy 13: Reduce the amount of waste created in Salinas.** | | | | | |
| 13.1 | Continue to enforce the City's Food to-go container compliance program and reusable bag ordinance. | Community Development Department | Library and Community Services, Public Works | General Fund | Ongoing |
| 13.2 | Consider a deconstruction requirement to reduce demolition waste from construction and renovation and facilitating material reuse. | Community Development Department | Library and Community Services, Public Works | General Fund | Ongoing |
| 13.3 | Support material reuse, repair, and sharing through partnerships with local libraries, community centers, schools, and other community service providers to develop maker and/or product repair events, tool-lending libraries, and other reuse programs. | Community Development Department | Library and Community Services, Public Works | General Fund | Ongoing |
| 13.6 | Provide funding to local libraries and community centers to acquire tool-lending libraries. | Community Development Department | Library and Community Services, Public Works | General Fund | Ongoing |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 13.6 | Support and promote opportunities for material reuse and donation via local salvaged materials retailers, zero-waste community groups, and charitable organizations, and local garage sales. | Community Development Department | Library and Community Services, Public Works | General Fund | Ongoing |
| **Natural Environment** | | | | | |
| **Strategy 14: Expand urban green space.** | | | | | |
| 14.1 | Expand the urban tree canopy through the implementation of the Urban Forest Management Plan and related plans. | Community Development Department | Library and Community Services, Public Works , community organizations | General Fund, grants | Mid-term (2027-2035) |
| 14.2 | Improve and maintain the existing parks and open space system and ensure ease of access to them, with priority for disadvantaged communities and other underserved areas and neighborhoods affected by urban heat islands. | Community Development Department | Library and Community Services, Public Works , community organizations | General Fund, grants | Mid-term (2027-2035) |
| 14.3 | Continue to invest in projects to protect and restore riparian and wetland ecosystems. | Community Development Department | Library and Community Services, Public Works , community organizations | General Fund, grants | Mid-term (2027-2035) |
| 14.4 | Expand and support community gardens, school gardens, and food forests in areas of high food insecurity. | Community Development Department | Library and Community Services, Public Works , community organizations | General Fund, grants | Mid-term (2027-2035) |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 14.5 | Incentivize developers to include community gardens on projects of a certain size, especially affordable housing developments in disadvantaged communities and other underserved areas. Partner with local community groups to expand gardening and ecosystem restoration volunteer opportunities. | Community Development Department | Library and Community Services, Public Works, community organizations | General Fund, grants | Mid-term (2027-2035) |
| 14.6 | Continue to support the Salinas River Channel Stream Maintenance Program. | Community Development Department | Library and Community Services, Public Works, community organizations | General Fund, grants | Mid-term (2027-2035) |
| Strategy 15: Improve Salinas' air quality. | | | | | |
| 15.1 | Limit truck traffic near sensitive receptors such as schools, parks, and disadvantaged communities and other underserved areas. Reduce truck idling at rest stops and industrial centers. | Community Development Department | Public Works, Caltrans, community organizations | General Fund, grants | Near-term (2026-2027) |
| 15.2 | Improve ventilation and air filtration systems in schools, recreation centers, and other community gathering spaces or resilience hubs. | Community Development Department | Public Works, Caltrans, community organizations | General Fund, grants | Near-term (2026-2027) |
| 15.3 | Facilitate the implementation of the Monterey Bay Unified Air Pollution Control District Air Quality Plan. | Community Development Department | Public Works, Caltrans, community organizations | General Fund, grants | Near-term (2026-2027) |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 15.4 | Work with community-based organizations to identify air pollution hot spots in the community to inform future policies. | Community Development Department | Public Works, Caltrans, community organizations | General Fund, grants | Near-term (2026-2027) |
| **Agriculture** | | | | | |
| **Strategy 16: Reduce health and environmental impacts of agricultural operations.** | | | | | |
| 16.1 | Plant buffers around agricultural operations to protect local air and water quality. | Community Development Department | Monterey County Office of the Agricultural Commissioner | General Fund, partner agencies | Mid-term (2027-2035) |
| 16.2 | Work with local agricultural operations to reduce pesticide use. | Community Development Department | Monterey County Office of the Agricultural Commissioner | General Fund, partner agencies | Mid-term (2027-2035) |
| **Strategy 17: Promote agricultural resiliency.** | | | | | |
| 17.1 | Support and facilitate growers' efforts to receive grant funding for climate change adaptation projects, including regenerative agricultural practices and conservation management practices that sequester carbon, reduce GHG emissions, and improve soil health. | Community Development Department | Monterey County Office of the Agricultural Commissioner, community organizations | General Fund, partner agencies, grants | Long-term (2035 or beyond) |
| 17.2 | Partner with the local and regional agricultural community and research organizations to reduce water use, improve soil quality and expand opportunities for carbon sequestration on agricultural lands within city limits. | Community Development Department | Monterey County Office of the Agricultural Commissioner, community organizations | General Fund, partner agencies, grants | Long-term (2035 or beyond) |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 17.3 | Partner with community organizations, workers, and employers to develop and implement strategies to protect agricultural workers in Salinas from the impacts of climate change. | Community Development Department | Monterey County Office of the Agricultural Commissioner, community organizations | General Fund, partner agencies, grants | Long-term (2035 or beyond) |
| City Operations | | | | | |
| Strategy 18: Reduce resource use and GHG emissions from municipal operations. | | | | | |
| 18.1 | Improve energy and water performance of City facilities through electrification retrofits, efficiency upgrades, energy and water audits, solar energy generation and storage installation (including microgrids), and LED lighting replacement. | Community Development Department | Public Works, City Manager, Hartnell College | General Fund, grants | Long-term (2035 or beyond) |
| 18.2 | Implement sustainable municipal operations practices including green purchasing policies, comprehensive recycling and composting programs at City facilities and events, and sustainable landscaping practices. | Community Development Department | Public Works, City Manager, Hartnell College | General Fund, grants | Long-term (2035 or beyond) |
| 18.3 | Require new City vehicles to be zero-emission if a viable vehicle is available. Transition to an all-electric City vehicle fleet by 2035 and ensure adequate EV charging infrastructure at City facilities. | Community Development Department | Public Works, City Manager, Hartnell College | General Fund, grants | Long-term (2035 or beyond) |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 18.4 | Provide incentives to City employees to encourage carpooling, using transit, or purchasing a zero-emission vehicle. | Community Development Department | Public Works, City Manager, Hartnell College | General Fund, grants | Long-term (2035 or beyond) |
| 18.5 | Implement an electric-first policy for replacing City-owned landscaping and industrial equipment. | Community Development Department | Public Works, City Manager, Hartnell College | General Fund, grants | Long-term (2035 or beyond) |
| 18.6 | Participate in local and regional initiatives to protect and restore ecosystems, manage and conserve water resources, reduce GHG emissions, improve community resilience to climate change, and promote equity, including implementation of the Monterey County Community Resilience Plan. | Community Development Department | Public Works, City Manager, Hartnell College | General Fund, grants | Long-term (2035 or beyond) |
| 18.7 | Support State and regional efforts to develop new insurance products to provide a safety net to offset outdoor workers' salaries during extreme heat or poor air quality days if they must miss work. | Community Development Department | Public Works, City Manager, Hartnell College | General Fund, grants | Long-term (2035 or beyond) |
| 18.8 | Advocate for State policies and budget appropriations to reduce GHG emissions and promote resilience and equity. | Community Development Department | Public Works, City Manager, Hartnell College | General Fund, grants | Long-term (2035 or beyond) |
| 18.9 | Share lessons learned from climate and resilience initiatives with other communities in the region. | Community Development Department | Public Works, City Manager, Hartnell College | General Fund, grants | Long-term (2035 or beyond) |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 18.10 | Partner with Hartnell College to develop programs to diversify and upskill the local workforce to support regional climate resilience projects. | Community Development Department | Public Works, City Manager, Hartnell College | General Fund, grants | Long-term (2035 or beyond) |
| **Building Community Resilience in Salinas** | | | | | |
| **Strategy 19: Make resilience resources accessible across the community.** | | | | | |
| 19.1 | Establish community resilience centers at trusted and equitably distributed community gathering places to serve as cooling and clean air centers to be operated during extreme heat and poor air quality events. | Emergency Services, Community Development Department | Parks and Recreation, Monterey County Office of Emergency Services, Community Emergency Response Team (CERT), community organizations | General Fund, grants | Mid-term (2027-2035) and ongoing |
| 19.2 | Continue to operate and expand the capacity of local CERT programs, including City staff training. | Emergency Services, Community Development Department | Parks and Recreation, Monterey County Office of Emergency Services, Community Emergency Response Team (CERT), community organizations | General Fund, grants | Mid-term (2027-2035) and ongoing |
| 19.3 | Provide multilingual guidance and resources on how to prepare for emergencies and disasters via social media and local news sources and at libraries, community centers, schools, and other government and community facilities. | Emergency Services, Community Development Department | Parks and Recreation, Monterey County Office of Emergency Services, Community Emergency Response Team (CERT), community organizations | General Fund, grants | Mid-term (2027-2035) and ongoing |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 19.4 | Establish outreach programs to identify vulnerable neighbors, conduct wellness checks, and help distribute resources before, during, and after a disaster or extreme weather event. | Emergency Services, Community Development Department | Parks and Recreation, Monterey County Office of Emergency Services, Community Emergency Response Team (CERT), community organizations | General Fund, grants | Mid-term (2027-2035) and ongoing |
| **Strategy 20: Facilitate evacuation and shelter in the event of an emergency.** | | | | | |
| 20.1 | Regularly update the City's Emergency Response Plan and share the plan with the community. | Emergency Services | Monterey County Office of Emergency Services, Monterey-Salinas Transit, local social service providers, community organizations | General Fund | Near-term (2026-2027) and ongoing |
| 20.2 | Coordinate with community-based organizations and transportation service agencies to develop an evacuation assistance plan to support persons with limited mobility or that lack access to a personal vehicle in the event of an emergency or hazard event, such as an extreme heat event. | Emergency Services | Monterey County Office of Emergency Services, Monterey-Salinas Transit, local social service providers, community organizations | General Fund | Near-term (2026-2027) and ongoing |
| 20.3 | Coordinate with local social service providers to ensure that shelters are available for persons experiencing homelessness during extreme events and other highly hazardous conditions. | Emergency Services | Monterey County Office of Emergency Services, Monterey-Salinas Transit, local social service providers, community organizations | General Fund | Near-term (2026-2027) and ongoing |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| Strategy 21: Improve the structural integrity of homes, workplaces, and infrastructure to prevent damage from severe weather, including flooding, wind, and extreme heat. | | | | | |
| 21.1 | Perform targeted outreach to residents of older structures and mobile home parks, regarding weatherization techniques and available financial assistance for improving home resilience. | Public Works | Community Development Department, Monterey County Office of Emergency Services, handlers of hazardous materials | General Fund, grants | Ongoing |
| 21.2 | Develop programs to deliver sandbags in cases where building occupants are unable to collect sandbags themselves in advance of flooding. | Public Works | Community Development Department, Monterey County Office of Emergency Services, handlers of hazardous materials | General Fund, grants | Ongoing |
| 21.3 | Establish a system to allow residents to notify the City about local hazard conditions and/or infrastructure in need of repair. | Public Works | Community Development Department, Monterey County Office of Emergency Services, handlers of hazardous materials | General Fund, grants | Ongoing |
| 21.4 | Install backup power resources at City facilities, emergency shelters, community resilience centers, and other critical facilities. | Public Works | Community Development Department, Monterey County Office of Emergency Services, handlers of hazardous materials | General Fund, grants | Ongoing |

| Action Number | Action Description | Responsible Parties | Supporting Parties | Potential Funding Sources | Timeframe |
|---|---|---|---|---|---|
| 21.5 | Update the Code of Ordinances as necessary to address hazards posed by flooding and emergent groundwater. | Public Works | Community Development Department, Monterey County Office of Emergency Services, handlers of hazardous materials | General Fund, grants | Ongoing |
| 21.6 | Implement cool roofs and cool pavement at City facilities and public spaces. | Public Works | Community Development Department, Monterey County Office of Emergency Services, handlers of hazardous materials | General Fund, grants | Ongoing |
| 21.7 | Work with handlers of hazardous materials to reduce the risk of hazardous material release during a flood or other disaster. | Public Works | Community Development Department, Monterey County Office of Emergency Services, handlers of hazardous materials | General Fund, grants | Ongoing |
| 21.8 | Pursue funding to maintain and improve flood control infrastructure. | Public Works | Community Development Department, Monterey County Office of Emergency Services, handlers of hazardous materials | General Fund, grants | Ongoing |

# 4.2 Implementation Strategies

## Implementation Strategy 1: Establish organizational capacity and secure funding for Climate Action Plan implementation.

Successful implementation requires dedicated staff capacity, adequate financial resources, and institutional support throughout City government. This strategy ensures that climate action becomes an integral part of City operations and planning processes.

**Action 1.1:** Designate City staff to coordinate CAP implementation, monitoring, and reporting activities. Consider establishing and funding a dedicated Sustainability Coordinator staff position.

**Action 1.2:** Integrate CAP implementation priorities into the City's annual budget process and capital improvement programming.

**Action 1.3:** Incorporate GHG emission and resilience considerations into departmental work plans, project development, and performance evaluation processes.

**Action 1.4:** Actively pursue federal, State, regional, and local funding opportunities to support CAP implementation.

**Action 1.5:** Develop sustainable financing mechanisms for ongoing climate action initiatives, including exploring dedicated revenue sources and innovative financing tools.

### Financing Climate Action in Salinas

The City can explore several specific financing approaches to support CAP implementation:

- **Development Impact Fees:** Assess fees on new development projects to fund climate-related infrastructure and programs.
- **Utility Partnerships:** Leverage 3CE and PG&E programs for on-bill financing and energy-efficiency incentives
- **Grant Leveraging:** Use federal programs like the Inflation Reduction Act and State programs like California Climate Investments as matching funds for local investments
- **Property Assessed Clean Energy (PACE):** Enable property owners to finance energy improvements through property tax assessments
- **Green Bonds:** Issue bonds specifically designated for environmental projects and infrastructure

## Implementation Strategy 2: Monitor progress and maintain community engagement throughout CAP implementation.

Regular monitoring, transparent reporting, and ongoing community involvement are essential for maintaining momentum on climate action issues and ensuring that the CAP remains responsive to community needs and changing conditions.

**Action 2.1:** Provide annual progress reports to the City Council and community on CAP implementation, including updates on strategy completion, estimated GHG reductions, and progress toward emission reduction targets.

**Action 2.2:** Establish a tracking system, on the City's website or other easily accessible platform, to monitor key performance indicators and share progress on climate action initiatives to the community.

**Action 2.3:** Conduct comprehensive GHG emissions inventories every five years to assess progress toward reduction targets and inform plan updates. Coordinate with AMBAG to support restoration of the regional inventory program and pursue dedicated funding sources to support ongoing regional coordination of GHG monitoring.

**Action 2.4:** Establish a CAP Advisory Committee or similar stakeholder group to engage community members, businesses, and stakeholder organizations in ongoing review of CAP implementation and identification of new opportunities for climate action.

**Action 2.5:** Update the CAP to incorporate new technologies, policy developments, funding opportunities, and lessons learned from implementation experience.

## Implementation Strategy 3: Strengthen partnerships and regional coordination to maximize impact and leverage resources.

Climate action is most effective when coordinated across jurisdictions and sectors. This strategy builds on existing partnerships while developing new collaborations that can amplify the impact of local efforts.

**Action 3.1:** Maintain active participation in regional climate networks, including AMBAG's climate initiatives, the Central Coast Climate Collaborative, and other multi-jurisdictional collaborations that support CAP objectives.

**Action 3.2:** Expand partnerships with Central Coast Community Energy (3CE), Pacific Gas and Electric Company, and other utility providers to advance clean energy and energy efficiency programs in Salinas.

**Action 3.3:** Strengthen coordination with Monterey County, neighboring cities, and regional agencies on climate adaptation, emergency preparedness, and resilience planning efforts.

**Action 3.4:** Collaborate with community-based organizations, environmental justice groups, and neighborhood associations to ensure equitable implementation of CAP strategies and meaningful community participation.

**Action 3.5:** Work with agricultural industry partners, Hartnell College, and workforce development organizations to advance climate-resilient economic development and green job creation.

**Action 3.6:** Engage with State and federal policy processes to advocate for supportive policies and regulations that facilitate local climate action and address implementation barriers.

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# 5. Glossary

Adaptation: Making changes in response to current or future conditions (such as the increased frequency and intensity of climate-related hazards), usually to reduce harm and to take advantage of new opportunities.

Adaptive capacity: The combination of strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities.

Agricultural and ecosystem pests: Bacteria, insects, weeds, and other organisms that can harm agricultural crops, forests, and natural ecosystems. Climate change may alter the abundance, range, and activity periods of these pests.

Assets: A valued feature of a community that may be harmed by climate change. Assets may include buildings, infrastructure, community services, ecosystems, and economic drivers.

Business-as-usual (BAU): A projection of future greenhouse gas emissions that assumes no new climate action policies or measures are implemented beyond those already in place.

Carbon dioxide equivalent ($CO_2e$): A measure used to compare emissions from various greenhouse gases based on their global warming potential. The carbon dioxide equivalent for a gas is derived by multiplying the tons of the gas by its associated global warming potential.

Carbon neutral: Reducing greenhouse gas emissions to zero, either by eliminating all emissions or by balancing out remaining emissions through carbon removal practices so that the "net" emissions are zero.

Carbon sequestration: The process of storing carbon dioxide in locations other than the atmosphere, where it cannot contribute to climate change. This includes storage in vegetation, soils, woody products, and aquatic environments.

Central Coast Community Energy (3CE): A community choice energy provider serving Salinas and other communities in the Monterey Bay region, providing electricity from renewable and carbon-free sources.

Climate Action Plan (CAP): A comprehensive strategy to assess and reduce greenhouse gas emissions and improve community resilience to climate change.

Climate change: A change in the state of the climate that can be identified by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. In the context of this plan, the term refers to changes brought on by human activities.

Climate resilience: The capacity of a community to prepare for disruptions, recover from shocks and stresses, adapt to changing conditions, and grow from a disruptive experience related to climate change.

Co-benefits: Additional benefits occurring from the implementation of a greenhouse gas reduction measure that are not directly related to reducing emissions, such as improved public health, economic benefits, or social equity.

Community-wide greenhouse gas inventory: A calculation of greenhouse gas emissions that result from activities of residents, employees, visitors, and other community members in Salinas.

Decarbonization: The process of reducing carbon dioxide emissions through the use of low or zero carbon power sources.

Disadvantaged communities: Communities disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation.

Drought: Conditions that are drier than normal for an extended period, making less water available for people and ecosystems.

Electric vehicle (EV): A zero-emission vehicle that uses electricity stored in a battery to power one or more electric motors and can be plugged in at home, work, fleet, or public charging stations.

Electrification: The process of replacing technologies that use fossil fuels with technologies that use electricity as a source of energy.

Emission factor: A unique value for scaling emissions to activity data in terms of a standard rate of emissions per unit of activity (e.g., grams of carbon dioxide emitted per kilowatt-hour of electricity use).

Energy efficiency: Using less energy to perform the same task or produce the same output.

Equity: The state in which each individual or group is allocated the resources needed to reach an equal outcome.

Exposure: The presence of people, infrastructure, natural systems, and economic, cultural, and social resources in areas that are subject to harm.

Extreme heat: Temperatures that are hotter than 98 percent of the historical high temperatures for the area, typically measured between April and October of 1961 to 1990.

Global warming potential (GWP): A measure of how much heat a greenhouse gas traps in the atmosphere over a specified time period, relative to carbon dioxide.

Green infrastructure: Infrastructure that filters and absorbs stormwater where it falls, such as bioswales, rain gardens, and permeable pavement.

Greenhouse gas (GHG): Gases that allow sunlight to pass through but reflect heat radiated from the Earth's surface, trapping heat in the lower atmosphere. Common GHGs include carbon dioxide ($CO_2$), methane ($CH_4$), and nitrous oxide ($N_2O$).

Hazard: An event or physical condition that has the potential to cause fatalities, injuries, property damage, infrastructure damage, agricultural losses, damage to the environment, interruption of business, or other types of harm or loss.

Human health hazards: Bacteria, viruses, parasites, and other organisms that can cause diseases in people, particularly those carried by animals such as mosquitoes, ticks, and rodents.

Impact (climate impact): The effects of a hazard or other conditions associated with climate change.

Inland flooding: Flooding that occurs when there is too much water on the ground to be carried away by drains or creeks, or to soak into the soil.

Land use and sequestration: The process by which carbon dioxide is either released from or stored in soils, vegetation, and other carbon reservoirs based on how land is managed and used.

Metric tons of carbon dioxide equivalent ($MTCO_2e$): A standard unit of measurement for greenhouse gas emissions. One metric ton equals approximately 2,205 pounds.

Microgrid: A localized group of electricity sources and loads that normally operate connected to the traditional grid but can disconnect and function autonomously as physical and/or economic conditions dictate.

Mitigation: Actions to reduce greenhouse gas emissions that cause climate change.

Off-road equipment: Motorized equipment that is not driven on roads or used for on-road transportation, including construction equipment, agricultural equipment, and landscaping equipment.

Qualified greenhouse gas reduction plan: A climate action plan that meets state requirements such that future development projects requiring environmental review under state law can streamline their greenhouse gas impact analyses by demonstrating consistency with the plan.

Reach code: A local building energy code that goes beyond the state minimum requirements for energy use in building design and construction.

Renewables Portfolio Standard (RPS): A regulatory mandate to increase production of energy from renewable sources such as wind, solar, biomass, and geothermal.

Resilience: The capacity to prepare for disruptions, recover from shocks and stresses, and adapt and grow from a disruptive experience.

Risk: The potential for damage or loss created by the interaction of hazards with assets such as buildings, infrastructure, or natural and cultural resources.

Sea level rise: The worldwide average rise in mean sea level, which may be due to several different causes, such as the thermal expansion of sea water and the addition of water to the oceans from the melting of glaciers, ice caps, and ice sheets.

Sensitivity: The level to which a species, natural system, community, or government would be affected by changing climate conditions.

Severe weather: Dangerous meteorological phenomena that pose a threat to life, property, or the environment, such as intense winds, lightning, hail, and related events.

Transportation Demand Management (TDM): Strategies that change travel behavior to reduce traffic congestion, vehicle emissions, and fuel consumption.

Urban heat island: The phenomenon in which urban areas experience higher temperatures than surrounding rural areas due to a combination of heat-absorptive surfaces, heat-generating activities, and the absence of vegetation.

Vehicle miles traveled (VMT): A measurement of the total distance traveled by all vehicles in a specified region over a given period of time.

Vulnerability: The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes.

Vulnerability assessment: An analysis of how a changing climate may harm a community and which elements - people, buildings and structures, resources, and other assets - are most vulnerable to its effects.

Wildfire: An unplanned fire that burns in a natural area such as a forest, grassland, or prairie.

Zero-emission vehicle (ZEV): A vehicle that produces no tailpipe emissions of air pollutants or greenhouse gases when in operation, such as battery-electric vehicles and hydrogen fuel cell vehicles.

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# 6. Appendices

## A. GHG Inventory and Forecast Technical Appendix

## B. Quantification Technical Appendix

This appendix shows the details of the calculations used to determine the GHG emission reductions achieved by existing/planned efforts and the new strategies.

## C. Sphere of Influence and Planning Area Quantification

This appendix provides details of the calculations used to determine the GHG inventories and forecast.

## D. Vulnerability Assessment Appendix

This appendix shows the scoring for all hazards, populations, and assets analyzed as part of the vulnerability assessment. This information is drawn from the Climate Change Vulnerability Assessment Summary.

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# Appendix A: GHG Inventory and Forecast Methodology Technical Appendix

This appendix presents the methodology of the updated 2005 and 2019 Salinas community-wide GHG inventories and the business-as-usual forecast of GHG emissions in 2030, 2040, and 2045.

## GHG Emissions Inventory Methodology

As part of the CAP project, the City updated the community-wide GHG inventories. A community-wide GHG inventory identifies GHG emissions that result from activities of residents, employees, and other community members occurring within the community. Examples include residents driving cars, homes using water, and businesses using electricity. Determining the annual level of GHG emissions will help Salinas establish an attainable goal for reducing the community's emissions year over year, building on work that has been a community priority for over a decade. Knowing which activities release these GHG emissions allows the City to develop policies and programs that facilitate a decrease in emissions for each activity.

The inventory considers the GHG emissions caused by activities attributed to the community, including GHG emissions generated both inside and outside their jurisdictional boundaries. GHG emissions are generated by various activities that are largely commonplace in daily life. Some daily activities release GHG emissions in the location of the activity, such as those released anytime a gasoline or diesel car is driven. On the other hand, some activities cause GHG emissions to be released elsewhere, such as someone using electricity from fossil fuels to power their home, which generates GHG emissions in the location of the power plant that supplies the power and not in the home itself.

Prior to the CAP development, the Association of Monterey Bay Area Governments (AMBAG) prepared community-wide GHG inventories for Salinas for the calendar years 2005, 2010, 2015, 2017, 2018, and 2019. The City revised the existing community-wide GHG inventories for 2005 and 2019 to use consistent and current methods and data sources. The 2005 inventory creates an updated baseline for establishing targets, while the

2019 inventory is the most recent indication of how emissions have changed since the baseline.

## GHG EMISSIONS INVENTORY PROTOCOLS

A series of guidance documents, called protocols, provide recommendations on how to adequately assess GHG emissions. The City updated GHG inventories consistent with the guidance in widely adopted, standard protocol documents. These protocols provide guidance on what activities will be evaluated in the GHG inventories and how emissions from those activities will be measured. Using standard methods also allows for an easy comparison of GHG emission levels across multiple years and communities.

- The community-wide GHG inventory uses **the United States Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions (U.S. Community Protocol)**, which was first developed in 2012 and updated most recently in 2019. The California Governor's Office of Planning and Research encourages cities and counties in California to follow the U.S. Community Protocol for community-wide GHG emissions.
- The **Global Protocol for Community-Scale Greenhouse Gas Inventories (Global Protocol)** was first developed in 2014 and is intended for use in preparing international community-scale GHG inventories. It is largely consistent with the U.S. Community Protocol, although it contains additional guidance and resources to support a wider range of activities that may be found in other countries. The City has used the Global Protocol to assess GHG emissions from sources that are not covered in the U.S. Community Protocol.

GHG inventories are estimates of GHG emissions based on these standard methods and verified datasets. While they are not direct measurements of GHG emissions, the use of the standard methods identified in the protocol, in combination with accurate data from appropriate sources, allows GHG inventories to provide reliable estimates of local emission levels.

## UNITS OF MEASUREMENT

GHG inventories assess emissions in a unit called carbon dioxide equivalent ($CO_2e$), which is a combined unit of all GHGs analyzed in the inventory. As different GHGs have different effects on the processes that drive climate change, $CO_2e$ is a weighted unit that reflects the

relative potency of the different GHGs. These inventories report amounts of GHGs in metric tons of $CO_2e$ ($MTCO_2e$), equal to 1,000 kilograms or approximately 2,205 pounds.

## EMISSION SECTORS

The community-wide GHG inventory assessed GHG emissions from the following seven categories of activities, known as sectors.

**Transportation:** Vehicles traveling on local roads and highways produce GHG emissions from burning gasoline and diesel for fuel. The number and distance of trips within the city limits is informed by the AMBAG travel demand model, which provides an up-to-date estimate of the total VMT associated with Salinas. Trips that merely pass through the city limits are not included. This sector includes emissions from light-duty vehicles (those weighing 8,500 pounds or less, which includes passenger cars and small trucks/vans/SUVs) and heavy-duty vehicles (those weighing more than 8,500 pounds, which include many commercial trucks and buses).

**Residential Energy:** Electricity and natural gas are used to power lights and appliances in residential buildings. Using natural gas and generating electricity produces GHG emissions. The volume of GHG emissions produced depends on the amount of energy used in buildings and the source of the energy: renewable versus fossil-fuel-based. PG&E and 3CE provide residential electricity in Salinas. PG&E provides natural gas service to the community.

**Nonresidential Energy:** Electricity and natural gas are used to power lights and appliances in nonresidential buildings and operations. Nonresidential buildings include commercial buildings like stores, restaurants, or hotels, and industrial and municipal facilities. PG&E and 3CE provide nonresidential electricity, and PG&E provides natural gas to nonresidential customers.

**Solid Waste:** Waste material produced by the community is deposited in landfills and decomposes to produce methane. It is mostly organic material, such as food waste, which produces methane in landfills. The amounts of solid waste produced by Salinas are based on City data and the proportions of different types of waste are informed by CalRecycle and CARB.

**Agriculture:** Agricultural operations and activities release GHG emissions through the use of fossil fuel-powered equipment, crop cultivation and harvesting, fertilizer application, and livestock operations. Data for this sector comes from CARB, the California Department of Conservation Farmland Mapping and Monitoring Program, and local agricultural reports,

including the Monterey County Crop Report and University of California Davis Agricultural and Resource Economics Cost and Return Studies.

**Off-road Equipment:** Portable equipment and vehicles that do not travel on roads, such as construction or lawn and garden landscaping equipment, produce GHG emissions from the gasoline, diesel, or natural gas fuel they use. Emissions for this sector are estimated using CARB's OFFROAD model.[xvi]

**Water and Wastewater:** Electricity is required to treat and pump water that is used in homes and businesses in Salinas, and to treat the wastewater produced in the community. This category measures the emissions from electricity based on the amount of water used in the community, how far it travels to reach Salinas, and the methods of treatment to make it safe for drinking and use. The processes of treating wastewater also produce emissions directly due to decomposition of the waste material and the methods of treatment. Data for this sector comes from local water and wastewater service providers.

**Land Use and Sequestration:** Carbon dioxide is absorbed and stored in trees and soils (sequestration) or released into the atmosphere from the development of previously undeveloped lands (land use) as trees and vegetation are cleared. This category measures the change in trees and vegetation due to development or urban greening efforts over a 20-year period.

## EMISSION FACTORS

The City calculated most of the GHG emissions using data on GHG-generating activities in combination with emission factors. An emissions factor describes how many $MTCO_2e$ are released per unit of an activity. For instance, an emissions factor for electricity describes the $MTCO_2e$ produced per kilowatt-hour (kWh) of electricity used, or an emission factor for on-road transportation describes the $MTCO_2e$ produced per mile of driving.

**Table A-1** shows the sources of activity data and GHG emission factors for each sector or subsector in the community-wide inventory.

**Table A-1: Activity Data and Emission Factor Sources**

| Sector or Subsector | Activity Data Source | Emission Factor Source |
|---|---|---|
| Electricity (PG&E) | Electricity consumption data from PG&E | PG&E |
| Electricity (3CE) | Electricity consumption data from 3CE | 3CE |
| Natural gas | Natural gas consumption data from PG&E | U.S. Community Protocol |
| On-road transportation (light- and medium-duty vehicles) | Vehicle miles traveled (VMT) from Kimley-Horn based on AMBAG model | California Air Resources Board (EMFAC model) |
| On-road transportation (heavy-duty vehicles) | Vehicle miles traveled (VMT) from Kimley-Horn based on AMBAG model | California Air Resources Board (EMFAC model) |
| Off-road equipment [1] | N/A | California Air Resources Board (EMFAC model) |
| Water and wastewater | Water consumption data from Salinas District 2020 Urban Water Management Plan. Wastewater generation data from Salinas 2021 Sanitary Sewer Master Plan. | California Energy Commission, U.S. Community Protocol, 3CE |
| Solid waste (municipal solid waste) | AMBAG/CalRecycle | CalRecycle |
| Agriculture (Fertilizer emissions) | California Farmland Mapping and Monitoring Program, Monterey County Crop Report | IPCC Guidelines |
| Land use and sequestration | California Farmland Mapping and Monitoring Program | - |

[1] Emissions from offroad equipment are estimated from a model developed by the California Air Resources Board rather than from measurable metrics such as fuel consumption. As a result, there is no activity data for the offroad equipment sector.

**Table A-2** shows the emissions factors for 2005 and 2019. Some sectors, including agriculture, land use and sequestration, and off-road emissions, are calculated using formulas or models and do not have specific emission factors.

**Table A-2: Emission Factors 2005 and 2019**

| Activity Type | Units | 2005 | 2019 | Source |
|---|---|---|---|---|
| Residential electricity (PG&E) | MTCO2e/kWh | 0.000224 | 0.000002 | PG&E |
| Residential electricity (3CE) | MTCO2e/kWh | NA | 0.000005 | 3CE |
| Nonresidential electricity (PG&E) | MTCO2e/kWh | 0.000224 | 0.000002 | PG&E |
| Nonresidential electricity (3CE) | MTCO2e/kWh | NA | 0.000005 | 3CE |
| Natural gas | MTCO2e/therm | 0.005319 | 0.005319 | U.S. Community Protocol |
| Light-duty vehicles | MTCO2e/VMT | 0.000419 | 0.000358 | California Air Resources Board (EMFAC model) |
| Heavy-duty vehicles | MTCO2e/VMT | 0.001305 | 0.001204 | California Air Resources Board (EMFAC model) |
| Municipal solid waste | MTCO2e/ton | 0.276044 | 0.286124 | AMBAG |
| Water delivery | MTCO2e/kWh | 0.000224 | 0.000002 | PG&E |

## GHG Emissions Forecast Methodology

The forecast is a projection of future community-wide GHG emissions in Salinas. It illustrates how emissions are expected to change over time. This is also known as a "business as usual" (BAU) or worst-case scenario, since it assumes that there is no new action taken since 2019 to reduce GHG emissions and that each individual Salinas community member continues to produce the same amount of GHG emissions per-person. The GHG emissions forecast is informed by demographic indicators, such as city population, households, and jobs. As the city grows in population, the BAU forecast assumes emissions increase proportionally. For the Salinas CAP, the City forecasted GHG emissions to 2030, 2040, and 2045 to align with the timeframe of the GHG emission reduction targets and the horizon year of the General Plan. **Table A-3** lists the demographic indicators that formed the basis of the BAU forecast. These indicators align with the General Plan update and its projected buildout figures.

**Table A-3: Demographic Indicators, GHG Emission Forecast**

| Indicator | 2019 | 2030 | 2040 | 2045 | Percent change 2019-2045 |
|---|---|---|---|---|---|
| Population | 160,310 | 178,170 | 196,120 | 205,760 | 28% |
| Households | 41,320 | 47,760 | 54,480 | 58,190 | 41% |
| Jobs | 58,430 | 68,540 | 79,240 | 85,200 | 46% |
| Service population (population + jobs) | 218,740 | 246,710 | 275,360 | 290,960 | 33% |
| Annual VMT | 758,874,820 | 908,786,140 | 1,045,069,170 | 1,127,806,690 | 49% |
| Acres of agriculture land | 3,170 | 2,250 | 1,420 | 1,010 | -68% |
| Note: Emissions are rounded to the nearest 10. Totals may not equal the sum of individual rows. Acres of agricultural land are projected using an agriculture-jobs-to-acres ratio from 2019 and the projections of future agricultural jobs in the city. | | | | | |

The forecasted demographic indicators also underpin the quantification of the GHG emission reduction strategies as they inform the assumed level of participating residents, workers, households, and businesses in the various strategies. See Appendix B: Quantification Technical Appendix for more details on now the GHG emission reductions are derived from each strategy.

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# Appendix B: Quantification Technical Appendix

This appendix provides the details of the calculations used to determine the greenhouse gas (GHG) emission reductions achieved by existing and planned efforts and the new GHG emission reduction strategies. This includes the data sources, assumptions, and performance metrics used to calculate GHG emission reductions for the Climate Action Plan (CAP) strategies. The sources and metrics are organized by strategy and rely on four primary types of data and research: (1) Salinas' GHG emissions inventory and forecast, (2) government agency tools and reports, (3) government agency protocols, and (4) scholarly research.

## Technical Data for Existing and Planned State Activities

California has adopted and is committed to implementing policies that reduce statewide GHG emissions, including those in Salinas. Many of these policies are laid out in the Climate Change Scoping Plan (Scoping Plan), a state document that outlines regulatory and market-based solutions to achieving California's GHG emission reduction goals. The Scoping Plan was first prepared in 2008, with successive updates in 2014, 2017, and 2022. These updates revised the state-level actions and identified additional opportunities for GHG emission reductions.

The Scoping Plan and related documents lay out several policies to reduce California's GHG emissions, although not all are directly applicable to Salinas. The City has assessed Salinas' GHG emissions and identified four State policies that are directly relevant to the community. This allows the CAP to provide "credit" to Salinas for these policies. These State efforts are:

### RENEWABLES PORTFOLIO STANDARD

The Renewables Portfolio Standard (RPS) requires electricity providers in California to procure an increasing share of their electricity from renewable and carbon-free sources. Established in 2002 and amended several times, most recently by Senate Bill 100 in 2018, the RPS sets the following targets:

- 33 percent renewable electricity by 2020
- 60 percent renewable electricity by 2030
- 100 percent renewable or carbon-free electricity by 2045

Both of Salinas' electricity providers, Pacific Gas & Electric (PG&E) and Central Coast Community Energy (3CE), are subject to these requirements. In 2020, PG&E reported that 35 percent of its power came from renewable sources , exceeding the 2020 target. 3CE reported 31 percent of power from renewable sources. As these providers continue to increase their renewable and carbon-free electricity portfolios, GHG emissions from electricity use in Salinas will decline accordingly. This affects not only direct electricity use in buildings but also electricity used for water and wastewater systems and for charging EVs.

## CLEAN CAR STANDARDS

California has implemented increasingly stringent emissions standards for vehicles since the passage of Assembly Bill 1493 in 2002. These standards have evolved over time to require greater fuel efficiency and lower emissions from new vehicles. In 2022, the California Air Resources Board adopted the Advanced Clean Cars II regulations, which require that all new passenger cars and light trucks sold in California be zero-emission vehicles (ZEVs) by 2035. The state has also adopted similar standards for larger vehicles through the Advanced Clean Trucks regulation and for public transit through the Innovative Clean Transit regulation. These standards will accelerate the transition to electric and other zero-emission vehicles in Salinas, significantly reducing emissions from the transportation sector, which is currently the largest source of GHG emissions in the city. At the time of writing, the federal government is seeking to revoke California’s authority to enact these regulations. The matter is currently pending in the courts. The State has indicated its intent to continue the transition to requiring new vehicle sales to be zero-emission vehicles, either through Advanced Clean Cars II and other regulations, or if the courts invalidate these regulations, through new regulations enacted through different mechanisms. CARB’s Drive Forward program, Executive Order N-27-25, budget and grant priorities, and other State-level actions and statements are clear indications of this intent. The City is keeping the reductions from the Clean Car Standards in the GHG emission forecast given CARB’s current status as enforcing the standards.

## TITLE 24 ENERGY-EFFICIENCY STANDARDS

California's Building Standards Code, particularly Part 6 (Energy Code) and Part 11 (Green Building Standards Code, or CALGreen), establishes energy efficiency requirements for new and renovated buildings. These standards are updated every three years to require increasing levels of efficiency. The most recent complete set of standards went into effect on January 1, 2026. These standards include requirements for solar photovoltaic systems

on new residential construction, electric-ready infrastructure, and significant improvements in building envelope efficiency. As new buildings are constructed in Salinas and existing buildings undergo major renovations, these standards will ensure that they use significantly less energy than older structures, reducing emissions from the built environment.

## SHORT-LIVED CLIMATE POLLUTANT REDUCTION STRATEGY (SB 1383)

Senate Bill 1383, passed in 2016, aims to reduce emissions of short-lived climate pollutants, which have a disproportionate warming impact in the near term. For local governments, the most significant aspect of SB 1383 is its requirements for organic waste diversion. The law requires a 75 percent reduction in organic waste disposal by 2025 and recovery of at least 20 percent of currently disposed edible food for human consumption. These requirements will significantly reduce methane emissions from landfills, as organic material is the primary source of these emissions. Salinas, in coordination with the Salinas Valley Solid Waste Authority, is implementing programs to comply with SB 1383, including expanded organics collection and processing infrastructure.

The GHG emissions from each of these measures were calculated by applying various assumptions to the business-as-usual forecast activity data and GHG emissions to model future conditions once State policies are implemented. The quantification of State measures relies on modeling data from the California Air Resources Board, CalRecycle, and the California Energy Commission. The results of the State measures quantification are included below in **Table B-1.**

### Table B-1: GHG Emission Reductions from Quantified State Measures

| State Measure | 2030 ($MTCO_2e$) | 2040 ($MTCO_2e$) | 2045 ($MTCO_2e$) |
|---|---|---|---|
| Renewables Portfolio Standard | 1,120 | 2,500 | 4,810 |
| Clean Car Standards | 73,270 | 147,360 | 163,440 |
| Title 24 | 7,190 | 22,220 | 33,400 |
| SB 1383 | 8,790 | 9,810 | 10,370 |
| Total | 90,370 | 181,890 | 212,020 |

# Technical Data for Quantified GHG Emission Reduction Strategies

The 2019 GHG emissions inventory and forecast serve as the foundation for the quantification of the City's GHG emission reduction measures. Activity data from the inventory form the basis of strategy quantification, including vehicle miles traveled (VMT), kilowatt-hours (kWh) of electricity or therms of natural gas consumed, and tons of waste disposed. Activity data were combined with assumptions of the level of participation or application of a strategy identified by the City and consultants to calculate the emissions reduction benefit of each strategy. This approach ensures that Salinas' projected GHG emissions reductions are tied to the baseline and to future activities occurring in the city.

## EMISSION FACTORS

**Table B-2** lists the emission factors used to quantify GHG emissions reductions in the CAP and its supporting materials. An emission factor is a coefficient that represents a ratio of a specific activity (using a kWh of electricity) to its equivalent amount of GHGs emitted. These emission factors reflect the reductions already achieved by the existing State policies.

### Table B-2: Forecasted Emission Factors with Existing State Actions, 2019-2045

| Activity Type | Units | 2030 | 2040 | 2045 | Source |
|---|---|---|---|---|---|
| Residential electricity (PG&E) | MTCO2e/kWh | 0.000002 | 0.000001 | 0.000000 | PG&E |
| Residential electricity (3CE) | MTCO2e/kWh | 0.000004 | 0.000002 | 0.000000 | 3CE |
| Nonresidential electricity (PG&E) | MTCO2e/kWh | 0.000002 | 0.000001 | 0.000000 | PG&E |
| Nonresidential electricity (3CE) | MTCO2e/kWh | 0.000004 | 0.000002 | 0.000000 | 3CE |
| Light-duty vehicles | MTCO2e/VMT | 0.000283 | 0.000238 | 0.000241 | CARB |
| Heavy-duty vehicles | MTCO2e/VMT | 0.001063 | 0.000810 | 0.000725 | CARB |
| Municipal solid waste | MTCO2e/ton | 0.267127 | 0.267137 | 0.267091 | AMBAG |
| Water delivery | MTCO2e/kWh | 0.000002 | 0.000001 | 0.000000 | PG&E |

For each strategy, this appendix discusses the following items:

- The savings in activity data (e.g., kWh of electricity or tons of solid waste) in 2030, 2040, and 2045 resulting from implementing the strategy as described. A negative value indicates an increase in activity data from the strategy.
- The decreases in GHG emissions in 2030, 2040, and 2045 resulting from implementing the strategy as described.
- The assumptions made about the strategy's performance or level of implementation, such as the level of community participation required to achieve the specified reductions by 2030, 2040, and 2045.
- The performance targets, which are quantifiable metrics about the projected level of success the strategy must meet to achieve the specified reductions by 2030, 2040, and 2045.
- The sources that inform the quantification, which include case studies, analyses, guidance documents, and other sources of data. The sources list does not include the GHG inventory, forecast, or other technical analyses prepared as part of the CAP, although these analyses are a critical foundation of the quantification.

Given the State's requirement that 100 percent of electricity be from carbon-free sources by 2045 under the Renewables Portfolio Standard (Senate Bill 100), some strategies will show no GHG emission savings in 2045. This is because the power supply is expected to be carbon-free and activities that use electricity will therefore have no associated GHG emissions.

## BUILDING ENERGY

### Strategy 1: Retrofit existing buildings and facilities to reduce energy use, reduce reliance on non-renewable fuels, and improve comfort.

This strategy quantifies the impact of energy efficiency retrofits on existing (homes built at the time of the CAP's development) residential and non-residential buildings. The City looked at reports from retrofit programs throughout California to identify the typical electricity and natural gas savings from single-family and multifamily home retrofits and commercial building retrofits. The team applied these savings to the energy use patterns of residences and businesses in Salinas. Separately, homes and businesses

that undergo significant retrofits must get a building permit, which requires them to meet the currently applicable Title 24 standards. To estimate reductions from these types of retrofits, the team reviewed current and projected future Title 24 standards against the current energy performance of Salinas homes and businesses to determine the typical electricity and natural gas savings. The team applied the appropriate emissions factors to the total energy savings estimates to determine GHG reductions from standard and Title 24 retrofits. Finally, the team analyzed the impact of electrification retrofits, which include replacing natural-gas appliances with electric models by calculating the reduction in natural gas use and increase in electricity use with new appliances. The team applied the emission factors for natural gas and electricity to determine the GHG savings.

## Activity Data Savings

| Activity Data Type | 2030 | 2040 | 2045 |
|---|---|---|---|
| Residential electricity (kWh) | 6,935,600 | 3,126,050 | -1,949,170 |
| Nonresidential electricity (kWh) | 88,922,850 | 155,811,600 | 155,085,446 |
| Residential natural gas (therms) | 4,500,400 | 10,452,430 | 13,487,270 |
| Nonresidential natural gas (therms) | 2,952,030 | 8,221,280 | 11,245,110 |

## GHG Savings

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| GHG Emissions Savings ($MTCO_2e$) | 40,000 | 99,710 | 131,540 |

## Key Assumptions

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| Percent of existing homes conducting standard retrofits | 30% | 60% | 65% |
| Percent of existing homes retrofitting to current Title 24 standards | 20% | 30% | 35% |
| Percent of existing businesses conducting standard retrofits | 30% | 60% | 65% |
| Percent of existing businesses retrofitting to current Title 24 standards | 20% | 35% | 35% |
| Percent of existing homes installing electric water heaters | 20% | 60% | 85% |
| Percent of existing homes installing electric space heaters | 20% | 60% | 85% |
| Percent of existing homes installing electric cooking appliances | 20% | 60% | 85% |
| Percent of existing homes installing electric clothes drying appliances | 20% | 60% | 85% |
| Percent of existing businesses installing electric water heaters | 20% | 60% | 85% |
| Percent of existing businesses installing electric space heaters | 20% | 60% | 85% |

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| Percent of existing businesses installing electric cooking appliances | 15% | 60% | 85% |
| Percent of existing businesses eligible for electric appliances | 80% | 90% | 95% |

## Performance Targets

| Performance Metric | 2030 | 2040 | 2045 |
|---|---|---|---|
| Number of existing single-family housing units undergoing standard retrofits | 8,020 | 16,040 | 17,370 |
| Number of existing multi-family housing units undergoing standard retrofits | 7,220 | 14,430 | 15,630 |
| Number of existing single-family housing units upgraded to Title 24 standards | 5,350 | 8,020 | 9,360 |
| Number of existing multi-family housing units upgraded to Title 24 standards | 4,810 | 7,220 | 8,420 |
| Number of existing businesses undergoing standard retrofits | 1,850 | 3,710 | 4,020 |
| Number of existing businesses upgraded to Title 24 standards | 1,240 | 2,160 | 2,160 |
| Number of housing units installing electric water and space heaters | 8,260 | 24,790 | 35,120 |
| Number of housing units installing electric cooking appliances | 9,550 | 32,690 | 49,460 |
| Number of housing units installing electric clothes dryers | 9,550 | 32,690 | 49,460 |
| Number of businesses installing electric water and space heaters | 990 | 3,340 | 4,990 |
| Number of businesses installing electric cooking appliances | 990 | 3,340 | 4,990 |

## Sources

California Energy Commission. (2019). Building energy efficiency standards (Title 24, Part 6, California Code of Regulations). https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards

California Energy Commission. (2006). *2006 California Commercial End-Use Survey (CEUS)* (Publication No. CEC-400-2006-005). https://www.energy.ca.gov/data-reports/surveys/2006-california-commercial-end-use-survey-ceus

Liu, G., Liu, B., Zhang, J., Wang, W., Athalye, R., Moser, D., Crowe, E., Bengtson, N., Effinger, M., & Webster, L. (2011). *Advanced energy retrofit guide: Retail buildings*. Pacific Northwest National Laboratory and PECI. https://www.pnnl.gov/main/publications/external/technical_reports/PNNL-20814.pdf

Liu, G., Liu, B., Wang, W., Zhang, J., Athalye, R., Moser, D., Crowe, E., Bengtson, N., Effinger, M., & Webster, L. (2011). *Advanced energy retrofit guide: Office buildings*. Pacific Northwest National Laboratory and PECI. https://www.pnnl.gov/main/publications/external/technical_reports/PNNL-20761.pdf

## Strategy 2: Accelerate all-electric and energy efficient construction of new buildings.

This strategy analyzes the impact of a reach code requiring a higher level of energy performance than the minimum state standards for new residential buildings beginning in 2031 and for new non-residential buildings beginning in 2026. This approach is known as an Energy Design Rating (EDR) code. In 2025, the State legislature passed a regulation pausing all new residential reach codes until 2031, with certain exceptions. Reach codes for non-residential buildings, including commercial buildings, are still permitted. The team used estimates of anticipated electricity and natural gas use changes that result from various reach code scenarios. They compared this to the scenario of electricity and natural gas use without CAP implementation to determine the potential savings from a reach code. The City then applied the appropriate natural gas and electricity emission factors to the savings to determine the associated GHG emission reductions.

### Activity Data Savings

| Activity Data Type | 2030 | 2040 | 2045 |
|---|---|---|---|
| Residential electricity (kWh) | 0 | -3,644,110 | -7,106,330 |
| Nonresidential electricity (kWh) | -2,603,870 | -6,299,050 | -7,809,840 |
| Residential natural gas (therms) | 0 | 882,670 | 1,293,520 |
| Nonresidential natural gas (therms) | 233,700 | 676,480 | 892,440 |

### GHG Savings

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| GHG Emissions Savings (MTCO2e) | 1,230 | 8,270 | 11,630 |

## Key Assumptions

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| Cumulative % of residential construction influenced by energy design rating (EDR) reach code | 0% | 90% | 98% |
| Cumulative % of commercial buildings influenced by EDR code | 85% | 90% | 98% |
| Year residential reach code is implemented | NA | 2031 | 2031 |
| Year non-residential reach code is implemented | 2026 | 2026 | 2026 |

## Performance Targets

| Performance Metric | 2030 | 2040 | 2045 |
|---|---|---|---|
| Number of new households affected by energy design rating (EDR) reach code | 0 | 6,050 | 3,640 |
| Number of new commercial buildings affected by energy design rating (EDR) reach code | 910 | 1,020 | 620 |

## Sources

California Energy Commission. 2024. Reach Code Paths. https://localenergycodes.com/content/reach-codes/building-efficiency-renewables.

## Strategy 3: Increase access to solar energy and energy storage systems community-wide.

This strategy estimates the amount of electricity that an increase in solar panels would generate and the GHG emission savings associated with that new electricity being renewable, and therefore carbon-free. The City calculated the capacity of existing solar panel systems on residential and non-residential buildings in Salinas and then calculated the projected capacity of a future scenario with an increase in solar panel installation. The team then applied the appropriate electricity emission factor to determine the GHG emission savings from increased renewable power generation.

## Activity Data Savings

This strategy does not affect the actual amount of electricity used in Salinas, but replaces electricity that community members would otherwise need to purchase from 3CE or PG&E. These savings show this decrease in the amount of purchased electricity.

| Activity Data Type | 2030 | 2040 | 2045 |
|---|---|---|---|
| Residential electricity (kWh) | 86.668,850 | 194,339,700 | 223508190 |
| Nonresidential electricity (kWh) | 222,416,670 | 733,375,660 | 797,245,540 |

## GHG Savings

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| GHG Emissions Savings (MTCO2e) | 1,170 | 2,200 | 0 |

## Key Assumptions

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| Percent of existing single-family units installing solar energy systems | 20% | 55% | 65% |
| Percent of existing businesses installing solar energy systems | 20% | 60% | 65% |
| Percent of existing multifamily installing solar energy systems | 20% | 60% | 65% |
| Percent of new multifamily buildings installing solar energy systems | 95% | 95% | 95% |

## Performance Targets

| Performance Metric | 2030 | 2040 | 2045 |
|---|---|---|---|
| Number of existing single-family units installing solar energy systems | 5,350 | 14,700 | 17,370 |
| Number of existing businesses installing solar energy systems | 1,240 | 3,710 | 4,020 |
| Number of existing multi-family units installing solar energy systems | 3,420 | 10,250 | 11,110 |
| Number of new multi-family units installing solar energy systems | 3,210 | 5,620 | 7,050 |

## Sources

California Distributed Generation Statistics. (2024). Interconnected Applications Data Set (Version: December 31, 2024). California Public Utilities Commission. https://www.californiadgstats.ca.gov/downloads

National Renewable Energy Laboratory. n.d. “PVWatts Calculator.” https://pvwatts.nrel.gov/.

### Strategy 4: Expand opportunities for renewable energy on farms and agricultural energy production.

This is a supportive measure that does not result in direct measurable GHG emissions. There are no activity or GHG savings, assumptions, performance indicators, or sources associated with this measure.

## LAND USE

### Strategy 5: Promote infill development to reduce long commute times and vehicle miles traveled.

This strategy quantifies the impact of more dense development, specifically an increase in dwelling units per acre of land, on light-duty vehicle miles traveled (VMT). The City used the residential development projections from the upcoming 2040 general plan to determine the increase in residential density. They multiplied the residential density figure by a coefficient that represents the decrease in VMT associated with an increase in residential density. The City then applied the appropriate emission factor for light-duty VMT to the VMT savings to determine the GHG emissions saved from reduced driving.

### Activity Data Savings

| Activity Data Type | 2030 | 2040 | 2045 |
|---|---|---|---|
| Light-duty VMT | 30,870,790 | 67,776,760 | 90,522,730 |

### GHG Savings

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| GHG Emissions Savings (MTCO2e) | 8,730 | 16,120 | 21,780 |

### Key Assumptions

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| Increase in residential density (dwelling units/acre) | 17% | 32% | 39% |

## Performance Targets

| Performance Metric | 2030 | 2040 | 2045 |
|---|---|---|---|
| Residential density (dwelling units/acre) | 4.6 | 5.2 | 5.5 |

## Sources

California Air Pollution Control Officers Association. 2021. *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*.

# TRANSPORTATION

### Strategy 6: Expand public transit services to provide a feasible alternative to single-occupancy vehicles.

This strategy quantifies the impact of increased transit coverage and service on light-duty VMT. For an increase in transit service, transit frequency, and transit-supportive roadway treatments, which are design and management strategies that give public transit vehicles priority and make bus service faster, more reliable, and easier to use, the City multiplied a factor for elasticity of transit ridership with respect to frequency of service by the existing mode share of transit ridership and personal vehicle usage to determine the displacement of VMT to transit ridership. For each of the VMT reductions due to strategy implementation, the City converted the reduction in VMT to GHG emissions using the emission factor for light-duty passenger vehicles.

## Activity Data Savings

| Activity Data Type | 2030 | 2040 | 2045 |
|---|---|---|---|
| Light-duty VMT | 862,770 | 4,128,920 | 9,226,340 |

## GHG Savings

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| GHG Emissions Savings (MTCO2e) | 180 | 790 | 1,800 |

## Key Assumptions

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| Percent increase in service miles or hours | 5% | 20% | 40% |
| Percent increase in transit frequency | 5% | 20% | 40% |
| Level of strategy implementation (increase in transit frequency) | 30% | 55% | 65% |
| Percent of transit routes receiving transit-supportive treatments | 5% | 20% | 25% |
| Percent increase in transit frequency due to BRT | 20% | 20% | 35% |
| Percent of routes receiving BRT treatments | 5% | 15% | 25% |

## Performance Targets

| Performance Metric | 2030 | 2040 | 2045 |
|---|---|---|---|
| Light-duty VMT reduced | 862,770 | 4,128,920 | 9,226,340 |

## Sources

California Air Pollution Control Officers Association. 2021. *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*.

## Strategy 7: Make active transportation affordable, safe, fun, and easy.

This strategy calculates the impact of increased sidewalk coverage, additional miles of bike lanes, and a community shared e-bike program on vehicle travel. It also considers the impact of Safe Routes to School roadway treatments, which are meant to encourage more children to use active modes of transportation to school instead of being driven. To determine VMT reductions from an increase in sidewalk coverage, the City multiplied the anticipated percent increase in sidewalk coverage by the elasticity of VMT with respect to the ratio of sidewalk-to-streets. To determine the VMT reductions from additional miles of bike lanes, the City multiplied the assumed increase in bicycle lanes in the community, the existing mode share percentage of bicycles, the average one-way bike trip in the community, and a factor for the elasticity of bike commuters with respect to bikeway miles per population of 10,000. They then compared that to the existing mode share percentage of vehicles and average one-way vehicle trip. To determine VMT reductions from an e-bike share program, the City multiplied the assumed percentage of households with access to a bikeshare program by the number of daily bikeshare trips per person, the vehicle to

bikeshare substitution rate, and the average one-way bikeshare trip. They compared that total to the daily vehicle trips per person and the average one-way vehicle trip. To determine VMT reductions from Safe Routes to School roadway improvements, the City compared the number of children living within two miles of school that walk or drive to the number of children that may walk or drive after safety features are implemented. They multiplied the reduced number of children driven to school by the average length trip to school to determine the VMT displaced by children choosing active modes of transportation. For the GHG reductions from each policy due to measure implementation, the City converted the reduction in VMT to GHG emissions using the emission factor for light-duty passenger vehicles.

## Activity Data Savings

| Activity Data Type | 2030 | 2040 | 2045 |
|---|---|---|---|
| Light-duty VMT reduced | 62,129,820 | 120,809,960 | 182,994,650 |

## GHG Savings

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| GHG Emissions Savings (MTCO2e) | 17,560 | 28,730 | 44,020 |

## Key Assumptions

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| Percent increase in sidewalk coverage | 5% | 8% | 10% |
| Percent of residences with access to bikeshare program, city limits | 60% | 70% | 80% |
| Percent increase in bike lanes | 30% | 59% | 59% |
| Percent of students living within 2 miles of school not driven to school after improvements | 60% | 70% | 80% |
| Percent of residences with access to bikeshare program, SOI | 90% | 90% | 90% |

## Performance Targets

| Performance Metric | 2030 | 2040 | 2045 |
|---|---|---|---|
| Miles of bike lanes | 113 | 139 | 139 |
| Number of households with access to a bikeshare program | 28,660 | 38,140 | 46,550 |

## Sources

City of Salinas. (2024). *Active Transportation Plan*. https://letsmodo.org/wp-content/uploads/2024/06/Draft_SalinasATP_240626-sm.pdf

California Air Pollution Control Officers Association. (2024). *Handbook for analyzing greenhouse gas emission reductions, assessing climate vulnerabilities, and advancing health and equity.*

## Strategy 8: Reduce commute-related vehicle miles traveled (VMT).

This strategy quantifies the impact of a voluntary and required employee transportation demand management (TDM) program on VMT related to commuting for work. Employee TDM programs are meant to support and encourage workers to choose transit, active modes of transportation, or carpooling as a means of commuting to work in place of driving alone. To determine the reduction in commute-related VMT, the City multiplied the percentage of employees eligible for a TDM program's benefits by an assumed associated percent reduction in vehicle mode share of employee commute trips. The City converted the reduction in VMT to GHG emissions using the emission factor for light-duty passenger vehicles.

## Activity Data Savings

| Activity Data Type | 2030 | 2040 | 2045 |
|---|---|---|---|
| Light-duty VMT | 11,050,840 | 18,267,810 | 30,213,940 |

## GHG Savings

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| GHG Emissions Savings (MTCO2e) | 3,770 | 5,130 | 8,370 |

## Key Assumptions

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| Percent of employees eligible for mandatory commute reduction program | 20% | 30% | 45% |
| Percent of employees eligible for voluntary commute reduction program | 30% | 35% | 60% |

## Performance Targets

| Performance Metric | 2030 | 2040 | 2045 |
|---|---|---|---|
| Number of employees eligible for a mandatory commute reduction program | 13,710 | 23,770 | 38,340 |
| Number of employees eligible for a voluntary commute reduction program | 20,560 | 27,730 | 51,120 |

## Sources

California Air Pollution Control Officers Association. (2024). *Handbook for analyzing greenhouse gas emission reductions, assessing climate vulnerabilities, and advancing health and equity.*

## Strategy 9: Accelerate the transition to zero-emission vehicles and equipment.

This strategy analyzes the impact of zero-emission vehicles (ZEVs) replacing existing internal combustion engine (ICE) vehicles at level above what the California Air Resources Board (CARB) currently projects in statewide modeling. It also analyzes the impact of converting outdoor equipment to electric models. The City applied an assumed percent increase in ZEV proliferation to forecasted ICE VMT to determine the amount of VMT that becomes zero-emission. They calculated the GHG emission savings from transitioning to ZEVs by multiplying the decrease in heavy-duty and light-duty ICE VMT by their respective emission factors. The City also accounted for any emissions from an increase in electricity use to charge ZEVs by multiplying the assumed increased in kWh used for charging by the appropriate electricity emission factor.

Similarly, to determine the GHG emission savings from the electrification of outdoor equipment the team calculated the reduction in fuel consumption (diesel and gasoline) associated with an assumed rate of transition of equipment types to electric models. They applied the appropriate emission factor for diesel and gasoline to the reduction in fuel to

determine GHG emission savings. To determine the amount of electricity required to charge an increase in electric models of equipment, the team applied a factor that represents kWh to gallons of gasoline or diesel. The team then accounted for any emissions from an increase in electricity use by multiplying the assumed increase in kWh used for charging by the appropriate electricity emission factor.

## Activity Data Savings

| Activity Data Type | 2030 | 2040 | 2045 |
|---|---|---|---|
| Gasoline gallons | 36,680 | 74,940 | 106,200 |
| Diesel gallons | 167,200 | 401,330 | 570,580 |
| Residential electricity (kWh) | -67,516,130 | -135,603,950 | -215,427,349 |
| Nonresidential electricity (kWh) | -6,456,030 | -15,505,480 | -22,044,150 |

## GHG Savings

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| GHG Emissions Savings (MTCO2e) | 69,130 | 108,690 | 180,530 |

## Key Assumptions

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| Light-duty EV adoption | 30% | 55% | 85% |
| Heavy-duty zero-emission vehicle adoption | 30% | 55% | 85% |
| Percent of landscaping equipment fuel use converted to zero-emission | 30% | 60% | 85% |
| Percent of construction equipment fuel use converted to zero-emission | 25% | 60% | 85% |
| Percent of agricultural equipment fuel converted to zero-emission | 20% | 50% | 85% |
| Percent of all other off-road equipment fuel converted to zero-emission | 20% | 40% | 85% |

## Performance Targets

| Performance Metric | 2030 | 2040 | 2045 |
|---|---|---|---|
| Increase in light-duty EV VMT | 171,929,325 | 345,339,418 | 549,636,964 |
| Increase in heavy-duty EV VMT | 16,153,263 | 21,910,749 | 43,943,933 |

## Sources

Argonne National Laboratory. (n.d.). The GREET Model (Greenhouse gases, Regulated Emissions, and Energy use in Technologies). Argonne National Laboratory. https://greet.es.anl.gov/.

# WATER (W)

## Strategy 10: Reduce water use in buildings and urban landscapes.

This strategy quantifies the impact of water efficient appliances on water use and the associated GHG emissions in residential and non-residential buildings. The team estimated the total water use that occurs indoors in Salinas and determined the amount that would be reduced based on assumed participation levels in appliance/fixture retrofit programs. The City then used the water savings to determine the decrease in electricity use and direct wastewater process emissions associated with this effort and applied the appropriate electricity emissions coefficients to identify the GHG savings.

### Activity Data Savings

| Activity Data Type | 2030 | 2040 | 2045 |
|---|---|---|---|
| Water (million gallons) | 400 | 550 | 600 |
| Electricity (kWh) | 1,406,630 | 1,951,880 | 2,110,150 |

### GHG Savings

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| GHG Emissions Savings (MTCO2e) | 330 | 460 | 490 |

### Key Assumptions

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| Percent of existing homes and businesses retrofitting water fixtures | 15% | 40% | 75% |
| Percent of new homes and businesses using water efficient fixtures | 50% | 70% | 75% |

### Performance Targets

| Performance Metric | 2030 | 2040 | 2045 |
|---|---|---|---|
| Number of existing households retrofitting water fixtures | 6,200 | 16,530 | 30,990 |
| Number of existing businesses retrofitting water fixtures | 3,090 | 4,330 | 4,640 |

### Sources

California Department of Water Resources. (2024, April 3). California Water Plan Update 2023. https://water.ca.gov/Programs/California-Water-Plan/Update-2023

### Strategy 11: Ensure the long-term stability and quality of Salinas' water supply.

This is a supportive measure that does not result in direct measurable GHG emissions. There are no activity or GHG savings, assumptions, performance indicators, or sources associated with this measure.

## SOLID WASTE (SW)

### Strategy 12: Increase diversion of compostable and recyclable materials from landfills.

This strategy calculates the reduction in GHG emissions associated with diverting recyclable and compostable materials away from the landfill and toward reprocessing. The City looked at statewide waste characterization studies to determine the amount of materials being produced in Salinas that could be recycled or composted. The team then assumed a percent reduction in tons of waste sent to landfill due to an increase in diversion to composting and recycling programs. To determine the associated GHG emission savings, the team used technical studies about waste characterization to determine the GHG emissions associated with a ton of waste material sent to landfills.

### Activity Data Savings

| Activity Data Type | 2030 | 2040 | 2045 |
|---|---|---|---|
| Solid waste (tons) | 3,220 | 8,720 | 8,140 |

## GHG Savings

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| GHG Emissions Savings (MTCO2e) | 910 | 2,480 | 2,340 |

## Key Assumptions

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| Increase in recycling rate | 10% | 30% | 75% |
| Increase in compost rate | 15% | 40% | 75% |

## Performance Targets

| Performance Metric | 2030 | 2040 | 2045 |
|---|---|---|---|
| Tons of waste composted | 20,640 | 28,350 | 18,210 |
| Tons of waste recycled | 9,230 | 10,490 | 6,240 |

## Sources

California Department of Resources Recycling and Recovery (CalRecycle). (2021). State of Disposal and Recycling and Exports in California for Calendar Year 2019 (Publication No. DRRR-2020-1697). https://www2.calrecycle.ca.gov/Publications/Details/1697

California Air Resources Board. (n.d.). CARB's Landfill Gas Tool. https://www.arb.ca.gov/cc/landfills/landfills.htm

Association of Monterey Bay Area Governments. Community-wide 2019 GHG Inventory.

## Strategy 13: Reduce the amount of waste created in Salinas.

This strategy determines the reduction in GHG emissions associated with a reduction in the volume of waste sent to a landfill. The City looked at statewide waste characterization studies to determine the amount of materials being produced in Salinas that could not be recycled or composted and used technical studies about waste characterization to determine the GHG emissions associated with an assumed reduction in tons of this waste material.

## Activity Data Savings

| Activity Data Type | 2030 | 2040 | 2045 |
|---|---|---|---|
| Solid waste (tons) | 16,510 | 36,850 | 126,550 |

## GHG Savings

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| GHG Emissions Savings (MTCO2e) | 4,410 | 9,840 | 33,800 |

## Key Assumptions

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| Percent reduction in solid waste | 10% | 20% | 65% |

## Performance Targets

| Performance Metric | 2030 | 2040 | 2045 |
|---|---|---|---|
| Solid waste after reductions (tons) | 148,581 | 147,400 | 68,142 |

## Sources

California Department of Resources Recycling and Recovery (CalRecycle). (2021). State of Disposal and Recycling and Exports in California for Calendar Year 2019 (Publication No. DRRR-2020-1697). https://www2.calrecycle.ca.gov/Publications/Details/1697

California Air Resources Board. (n.d.). CARB's Landfill Gas Tool. https://www.arb.ca.gov/cc/landfills/landfills.htm

# NATURAL ENVIRONMENT (NE)

## Strategy 14: Expand urban green space.

This strategy calculates the increase in carbon sequestration of the natural landscape in Salinas due to an increase in trees in the city. The City determined the assumed increase in tree canopy coverage in Salinas from the Urban Forestry Management Plan. They calculated the increase in annual carbon sequestration potential from the increase in tree canopy and therefore the GHG emissions savings.

## Activity Data Savings

| Activity Data Type | 2030 | 2040 | 2045 |
|---|---|---|---|
| Tree canopy cover area (hectares) | -23 | -75 | -55 |

### GHG Savings

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| GHG Emissions Savings (MTCO2e) | less than 10 | less than 10 | less than 10 |

### Key Assumptions

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| City tree canopy coverage | 13% | 15% | 15% |

### Performance Targets

| Performance Metric | 2030 | 2040 | 2045 |
|---|---|---|---|
| Tree canopy cover area (hectares) | 590 | 680 | 680 |

### Sources

City of Salinas. (2023). Urban Forestry Management Plan. https://www.salinas.gov/files/sharedassets/city/v/1/public-works/documents/salinas-draft-urban-forestry-management-plan.pdf

Intergovernmental Panel on Climate Change. 2006. 2006 IPCC Guidelines for National Greenhouse Gas Inventories. “Volume 1: General guidance and reporting.” https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4_Volume4/V4_13_An1_Worksheets.pdf.

### Strategy 15: Improve Salinas’ air quality.

This is a supportive measure that does not result in direct measurable GHG emissions. There are no activity or GHG savings, assumptions, performance indicators, or sources associated with this measure.

## AGRICULTURE (AR)

### Strategy 16: Reduce health and environmental impacts of agricultural operations.

This is a supportive measure that does not result in direct measurable GHG emissions. There are no activity or GHG savings, assumptions, performance indicators, or sources associated with this measure.

### Strategy 17: Promote agricultural resiliency.

This is a supportive measure that does not result in direct measurable GHG emissions. There are no activity or GHG savings, assumptions, performance indicators, or sources associated with this measure.

## MUNICIPAL OPERATIONS (MO)

### Strategy 18: Reduce resource use and GHG emissions from municipal operations.

This is a supportive measure that does not result in direct measurable GHG emissions. There are no activity or GHG savings, assumptions, performance indicators, or sources associated with this measure.

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# Appendix C: Sphere of Influence and Planning Area Quantification

## Introduction

The City of Salinas has prepared this Climate Action Plan (CAP) to address greenhouse gas (GHG) emissions not only within its city limits but also within its broader planning boundaries. This comprehensive approach ensures that the CAP serves as a qualified GHG reduction plan under the California Environmental Quality Act (CEQA), providing streamlined environmental review for future development projects throughout the entire planning area.

The Sphere of Influence (SOI) represents areas outside the city limits that are likely to be annexed and developed in the future. These are unincorporated areas where Monterey County has land use authority, but the City and County collaborate on development standards and zoning requirements in anticipation of the areas eventually being incorporated into Salinas. The Planning Area encompasses both the city limits and the SOI, representing the full geographic scope of the City's long-term planning efforts and the area covered by the General Plan. The SOI for Salinas encompasses 2,312 acres, of which 1,904 acres are developed. Combined with the 12,565-acre city limits area, the total Planning Area covers 15,378 acres. This appendix presents the GHG emissions inventory, forecast, reduction strategies, and target achievement for these geographic boundaries. The demographic and emissions analysis presented here uses the same methodologies and emission factors as the city limits quantification detailed in the main quantification appendix.

## Demographics

**Table C-1** presents key demographic indicators for 2019 (baseline year) across the three geographic areas. These demographics form the basis for the GHG emissions forecasts and quantification of reduction strategies.

**Table C-1: Key Demographic Indicators (2019)**

| Demographic | City Limits | SOI | Planning Area |
|---|---|---|---|
| **Population** | | | |
| Population | 160,310 | 2,630 | 162,940 |
| Households | 41,320 | 860 | 42,180 |
| **Housing** | | | |
| Housing Units | 43,810 | 910 | 44,720 |
| Single-Family | 26,730 | 770 | 27,490 |
| Multi-Family | 15,640 | 150 | 15,780 |
| Mobile Homes | 1,350 | 0 | 1,350 |
| ADUs | 100 | 0 | 100 |
| **Employment** | | | |
| Total Employment | 58,430 | 2,010 | 60,440 |
| **Service Population** | | | |
| Service Population | 218,740 | 4,640 | 223,380 |

## GHG Inventory and BAU Forecast

The 2019 GHG emissions inventory establishes the starting point for measuring progress toward emission reduction targets. These emissions, shown in **Table C-2**, are distributed across the planning area in proportion to the demographic and economic activity in each geographic boundary. The inventory captures emissions from all major sectors, which are residential and nonresidential energy use, transportation, solid waste, water and wastewater, agriculture, and land use changes. Refer to *Section 2.3*, *GHG Inventories and Forecast* of the CAP and **Appendix A:** *GHG Inventory and Forecast Technical Appendix* for more information on what is covered under each inventory sector.

The business-as-usual (BAU) forecast projects future emissions based on anticipated growth in population, housing, and employment, assuming no new climate actions beyond those already in place. These projections, shown in **Table C-2**, account for expected development patterns within both the city limits and SOI, with more intensive growth anticipated in the SOI as specific plans are implemented.

**Table C-2: GHG Emissions Inventory and BAU Forecast (MTCO2e)**

| | 2019 | 2030 | 2040 | 2045 |
|---|---|---|---|---|
| City limits | 530,600 | 623,580 | 714,630 | 768,250 |
| SOI | 28,730 | 42,880 | 71,100 | 85,590 |
| Planning area | 559,330 | 666,460 | 785,730 | 853,840 |

## Targets

The planning area GHG reduction targets align with state climate goals, requiring a 40% reduction below 1990 levels (equivalent to 15 percent below 2005 baseline year levels) by 2030, 60% reduction by 2040, and 80% reduction by 2045. **Table C-3** displays the maximum threshold of GHG emissions needed to achieve these targets. Refer to **Section 3.1**, *GHG Emissions Reduction Targets*, of the CAP for additional detail on how these targets are formulated. These targets were calculated by applying state-level reduction requirements to local baseline emissions ($MTCO_2e$), ensuring consistency with California's climate framework while accounting for local conditions.

The planning area targets reflect the combined reduction requirements for both the city limits and SOI, recognizing that development in the SOI will be guided by specific plans that can incorporate more aggressive sustainability measures from the outset.

### Table C-3: GHG Reduction Targets ($MTCO_2e$)

| | 2030 | 2040 | 2045 |
|---|---|---|---|
| City limits | 389,050 | 259,360 | 129,680 |
| SOI | 21,070 | 14,040 | 7,020 |
| Planning area | 410,110 | 273,400 | 136,700 |

## State Quantification

State-level climate policies and programs will contribute significantly to local emission reductions. These include the Renewables Portfolio Standard, Clean Car Standards, Title 24 building energy efficiency standards, and SB 1383 organic waste diversion requirements, as described in **Section 3.2**, *Contribution of Existing and Planned State Actions*, of the CAP. **Table C-4** shows the expected emission reductions from state actions across the planning area.

### Table C-4: Emissions Reductions from State Actions ($MTCO_2e$)

| | 2019 (Baseline) | 2030 | 2040 | 2045 |
|---|---|---|---|---|
| City limits | 530,600 | 90,370 | 181,890 | 212,020 |
| SOI | 28,730 | 7,030 | 23,100 | 30,270 |
| Planning area | 559,330 | 97,400 | 204,990 | 242,290 |

**Table C-5: Total Emissions with Reductions from State Actions ($MTCO_2e$)**

| | 2019 (Baseline) | 2030 | 2040 | 2045 |
|---|---|---|---|---|
| City limits | 530,600 | 533,210 | 532,740 | 556,230 |
| SOI | 28,730 | 35,850 | 48,000 | 55,320 |
| Planning area | 559,330 | 569,060 | 580,740 | 611,550 |

# Strategy Quantification

The CAP strategies provide additional emissions reductions beyond state actions, as displayed in **Table C-6**, **Table C-7**, and **Table C-8**. The quantification assumes that SOI areas will implement the same strategies as the city limits, with participation rates adjusted based on development patterns and infrastructure assumptions specific to the SOI planning context.

### Key SOI Strategy Assumptions

Both the city limits and SOI quantifications used the same emission factors, which are listed in **Appendix B**. However, several strategies have different implementation assumptions for the SOI compared to the city limits, including:

- **Building Energy:** New development in the SOI is assumed to achieve higher rates of all-electric construction (65 percent by 2045) compared to retrofits in existing buildings. Unlike in the city limits, most new development in the SOI will be enacted through specific plans and large-scale developments. The City can enact specific plan policies and establish conditions of approval to increase the electrification rates of new buildings in the SOI.
- **Land Use (Strategy LU-1):** The SOI's specific plans enable the City to implement policies that result in more compact, mixed-use development patterns compared to the city limits. Such development patterns help to reduce vehicle trips and the associated GHG emissions.
- **Transportation:** EV charging infrastructure can more easily be built into new developments than existing buildings. The City may also work with developers in the SOI to increase EV charging infrastructure beyond the minimum requirements in the Building Standards Code enacted by the State.

- **Water and Waste:** New developments can incorporate water-efficient fixtures and waste diversion systems from the beginning, especially if specific plan policies and development agreements can support these efforts.

**Table C-6: GHG Emissions Reductions from CAP Strategies (City limits)**

| Strategy | 2030 $MTCO_2e$ savings | 2040 $MTCO_2e$ savings | 2045 $MTCO_2e$ savings |
|---|---|---|---|
| 1 | 40,000 | 99,710 | 131,540 |
| 2 | 1,230 | 8,270 | 11,630 |
| 3 | 1,170 | 2,200 | 0 |
| 4 | 0 | 0 | 0 |
| 5 | 8,730 | 16,120 | 21,780 |
| 6 | 180 | 790 | 1,800 |
| 7 | 17,560 | 28,730 | 44,020 |
| 8 | 3,770 | 5,130 | 8,370 |
| 9 | 69,130 | 108,690 | 180,530 |
| 10 | 330 | 460 | 490 |
| 11 | 0 | 0 | 0 |
| 12 | 910 | 2,480 | 2,340 |
| 13 | 4,410 | 9,840 | 33,800 |
| 14 | less than 10 | less than 10 | less than 10 |
| 15 | 0 | 0 | 0 |
| 16 | 0 | 0 | 0 |
| 17 | 0 | 0 | 0 |
| 18 | 0 | 0 | 0 |
| 19 | 0 | 0 | 0 |
| 20 | 0 | 0 | 0 |
| 21 | 0 | 0 | 0 |
| Total | 147,420 | 282,420 | 436,300 |

**Table C-7: GHG Emissions Reductions from CAP Strategies (SOI only)**

| Strategy | 2030 $MTCO_2e$ savings | 2040 $MTCO_2e$ savings | 2030 $MTCO_2e$ savings |
|---|---|---|---|
| 1 | 1,290 | 3,880 | 5,540 |
| 2 | 60 | 320 | 470 |
| 3 | 50 | 100 | 0 |
| 4 | 0 | 0 | 0 |
| 5 | 1,480 | 4,590 | 7,110 |
| 6 | 20 | 110 | 290 |
| 7 | 1,420 | 3,460 | 5,760 |
| 8 | 1,160 | 1,420 | 1,760 |
| 9 | 5,870 | 11,420 | 20,460 |
| 10 | 10 | 20 | 20 |
| 11 | 0 | 0 | 0 |
| 12 | 30 | 90 | 100 |
| 13 | 130 | 390 | 1,570 |
| 14 | 0 | 0 | 0 |
| 15 | 0 | 0 | 0 |
| 16 | 0 | 0 | 0 |
| 17 | 0 | 0 | 0 |
| 18 | 0 | 0 | 0 |
| 19 | 0 | 0 | 0 |
| 20 | 0 | 0 | 0 |
| 21 | 0 | 0 | 0 |
| Total | 11,500 | 25,730 | 43,080 |

**Table C-8: GHG Emissions Reductions from CAP Strategies (Total planning area)**

| Strategy | 2030 $MTCO_2e$ savings | 2040 $MTCO_2e$ savings | 2030 $MTCO_2e$ savings |
|---|---|---|---|
| 1 | 41,290 | 103,590 | 137,080 |
| 2 | 1,290 | 8,590 | 12,100 |
| 3 | 1,200 | 2,230 | 0 |
| 4 | 0 | 0 | 0 |
| 5 | 10,210 | 20,710 | 28,890 |
| 6 | 200 | 900 | 2,090 |
| 7 | 18,980 | 32,190 | 49,780 |
| 8 | 4,930 | 6,550 | 10,130 |
| 9 | 75,000 | 120,110 | 200,990 |
| 10 | 340 | 480 | 510 |
| 11 | 0 | 0 | 0 |
| 12 | 940 | 2,570 | 2,440 |
| 13 | 4,540 | 10,230 | 35,370 |
| 14 | Less than 10 | Less than 10 | Less than 10 |
| 15 | 0 | 0 | 0 |
| 16 | 0 | 0 | 0 |
| 17 | 0 | 0 | 0 |
| 18 | 0 | 0 | 0 |
| 19 | 0 | 0 | 0 |
| 20 | 0 | 0 | 0 |
| 21 | 0 | 0 | 0 |
| Total | 158,920 | 308,150 | 479,380 |

## Target Achievement

The combination of state actions and local CAP strategies successfully achieves the established GHG reduction targets for the city limits and planning area for all milestone years. **Tables C-9**, **C-10**, and **C-11** demonstrate how the planning area meets and exceeds the required emission reductions through 2045. While the SOI does not achieve its individual reduction targets in each milestone year, this is an expected outcome that does not compromise the overall climate goals of the CAP, as the GHG emissions for both the city limits and the total planning area do achieve their relevant reduction targets. The SOI represents future development areas that will be guided by specific plans and

development agreements, allowing for flexibility in incorporating additional sustainability measures.

### Table C-9: 2030 Target Achievement

| | City limits | SOI | Planning area |
|---|---|---|---|
| Baseline emissions | 762,830 | 41,304 | 804,134 |
| BAU Forecast | 623,580 | 42,870 | 666,450 |
| Reductions from State Measures | -90,370 | -7,030 | -97,400 |
| Reductions from strategies | -147,420 | -11,500 | -158,920 |
| Final emissions with CAP | 385,790 | 24,330 | 410,120 |
| Target | 389,050 | 21,070 | 410,110 |
| Target achieved? | Yes | No | Yes |

### Table C-10: 2040 Target Achievement

| | City limits | SOI | Planning area |
|---|---|---|---|
| Baseline emissions | 762,830 | 41,304 | 804,134 |
| BAU Forecast | 714,630 | 71,100 | 785,730 |
| Reductions from State Measures | -181,890 | -23,100 | -204,990 |
| Reductions from strategies | -282,420 | -25,730 | -308,150 |
| Final emissions with CAP | 250,320 | 22,310 | 272,630 |
| Target | 259,360 | 14,040 | 273,400 |
| Target achieved? | Yes | No | Yes |

### Table C-11: 2045 Target Achievement

| | City limits | SOI | Planning area |
|---|---|---|---|
| Baseline emissions | 762,830 | 41,304 | 804,134 |
| BAU Forecast | 768,250 | 85,590 | 853,840 |
| Reductions from State Measures | -212,020 | -30,270 | -242,290 |
| Reductions from strategies | -436,300 | -43,080 | -479,380 |
| Final emissions with CAP | 119,930 | 12,430 | 132,360 |
| Target | 129,680 | 7,020 | 136,700 |
| Target achieved? | Yes | No | Yes |

# Appendix D: Salinas Vulnerability Assessment Summary

## Introduction

The City of Salinas prepared a Climate Change Vulnerability Assessment. This assessment identifies who and what in Salinas is most at risk from climate change-related hazards, such as flooding, extreme heat, and wildfires. It acts as a foundation to prepare adaptation and resilience policies for inclusion in the Climate Action Plan and updated Safety Element Vulnerability Assessment Method

The Vulnerability Assessment follows the recommended four-step process in the California Adaptation Planning Guide (APG): (1) characterizing the city's exposure to current and projected climate hazards; (2) identifying potential sensitivities and potential impacts to city populations and assets; (3) evaluating the current ability of the populations and assets to cope with climate impacts, also referred to as its adaptive capacity; and (4) identifying priority vulnerabilities based on systematic scoring.

City staff identified 64 populations and assets that are potentially vulnerable to nine climate change hazards, shown in **Table D-1**. Staff scored each population or asset for each relevant hazard on two criteria: impact (the potential for harm) and adaptive capacity (the ability to resist or recover from harm). Populations or assets with high impact and low adaptive capacity are the most vulnerable to climate change-related hazards, while those with low impact and high adaptive capacity are last vulnerable (although not immune).

## Table D-1: List of Populations and Assets

| Category | Populations or Assets | | |
|---|---|---|---|
| Populations | Children under 10 | Migrant and/or seasonal workers | Persons without access to lifelines |
| | Cost-burdened households | Outdoor workers | Pollution-burdened populations |
| | Households in poverty | Overcrowded households | Renters |
| | Incarcerated and formerly incarcerated individuals | Persons experiencing homelessness | Seniors (65+) |
| | Immigrant communities | Persons living in mobile homes | Seniors living alone |
| | Linguistically isolated persons | Persons living on single-access roads * | Unemployed persons |
| | Low-income households | Persons with chronic illness and/or disabilities | |
| | Low-resourced people of color | Persons without a high school degree | |
| Infrastructure | Bicycling and pedestrian trails | Flood control infrastructure | Railway |
| | Bridges | Hazardous materials sites | Salinas Municipal Airport |
| | Communication facilities | Major roads and highways | Solid waste facilities |
| | Electrical transmission infrastructure | Natural gas pipelines | Transit facilities |
| | Electric vehicle charging stations | Parks and open space | Water and wastewater, infrastructure |
| Buildings | Community centers and libraries | Historic buildings and museums | Public safety buildings |
| | Commercial businesses | Homes and residential structures | Schools |
| | Government buildings | Medical and care facilities | |
| Economic Drivers | Agricultural and food processing | Major employers | Retail centers |
| | Government and administration | Medical centers | Sports venues |

| Category | Populations or Assets | | |
|---|---|---|---|
| Ecosystems and Natural Resources | Grassland | Oak woodland | Urban trees |
| | Groundwater | Riparian areas, wetlands, and lakes | |
| Key Services | Communications services | Government administration and community services | Solid waste removal |
| | Emergency medical response | Public safety response | Water and wastewater treatment, delivery, and collection |
| | Energy delivery | Public transit access | |
| * Persons living single-access roadways are those who live in roadways with only one vehicle ingress and egress route. | | | |

Note that "weather" and "climate" are two different things. "Weather" describes the conditions at a particular time and place, and "climate" describes the long-term average of conditions. It is difficult to accurately project weather conditions more than a few days in advance, but because climate is a long-term average, it can be projected out for years or decades with a high degree of accuracy. Since climate is an average, it does not say whether an event will or will not occur, only how likely it is.

## Hazards of Concern

### AGRICULTURAL AND ECOSYSTEM PESTS

The health and productivity of natural ecosystems and farmland are affected by the presence of a variety of pests whose abundance, range, and periods of activity may be enlarged by climate change, especially because of warmer temperatures. Although most local agriculture is outside of the city limits, impacts to agriculture may cause economic impacts or other hardships to Salinas.

The **agricultural and food processing industry** is especially susceptible to these pests. As weed growth intensifies, herbicide use may also increase, impacting the health of community members and contributing to the development of pesticide resistance. **Outdoor workers** are those who are most likely to be directly exposed to pesticides, and agricultural workers' work may be halted if pest infestations become severe. Insect infestation of **wildland trees**, in addition to harming tree health and leading to death, increases the fuel availability for wildfires. While healthy trees can often resist pests and

pathogens, trees that are stressed by environmental conditions such as drought could be at risk.

## DROUGHT

Salinas obtains its water from the Salinas Valley Groundwater Basin, including the 180/400-Foot Aquifer, Eastside Aquifer, Langley Area, Monterey, and Paiaro Valley Subbasins. The 180/400-Foot Aquifer Subbasin and the Pajaro Valley Subbasin are both in a condition of critical overdraft. However, Cal Water expects that, under all hydrologic conditions, its groundwater supply for the Salinas District will fully meet future demands.

Drought conditions can lead to increases in **groundwater** pumping, including potential pumping from deep aquifers. Not only can this threaten reliable groundwater sources, but it can lead to saltwater moving into the groundwater basins from the ocean, which can contaminate freshwater supplies.

Several communities, industries, and community services are negatively impacted by drought, especially agriculture. Low levels of precipitation may hurt crop production, especially if droughts are combined with extreme heat. Drought is also associated with increased insect infestations, plant diseases, and wind erosion. **Outdoor workers**, especially workers in agriculture, may experience economic instability if their work is halted or delayed due to drought. Drought and associated water conservation may have impacts for f**inancially constrained and pollution burned households**, as well as **low-resourced people of color**. These populations may be unable to afford higher-price water and may already experience high levels of exposure to water pollution. Access to water can be severely limited for **incarcerated individuals** even in non-drought conditions. During a drought, individuals may face further restrictions in shower use and access to water fountains.

**Water-based ecosystems** such as marshes, rivers, and wetlands may experience declines in ecosystem health during a drought. Pre-existing water supply challenges in Monterey County mean that drought can lead to limited water available for **fire suppression services**.

## EXTREME HEAT AND WARM NIGHTS

Extreme heat is when temperatures rise significantly above normal levels, which in Salinas is 90.4 degrees Fahrenheit. Warm nights are when minimum temperatures remain significantly above normal levels (59 degrees Fahrenheit in Salinas) during nighttime hours. Historically, Salinas has experienced about three extreme heat days and five warm nights per year. By the end of the century, Salinas is projected to experience an average of 15 extreme heat days and 102 warm nights per year.

Members of the community most vulnerable to high heat include those who are especially susceptible to the health impacts of high heat and those who may lack the resources to prepare for or recover from high heat. **Children** and **seniors** are especially sensitive to heat. High heat can exacerbate conditions such as diabetes, cardiovascular conditions, respiratory ailments, and cerebrovascular diseases, which are more likely to affect seniors and **individuals with chronic health conditions**. **Seniors living alone** and **those with disabilities** which hinder their ability to reach support services are especially vulnerable.

Community members who face barriers to reducing their exposure to heat are especially vulnerable. Some of the most vulnerable are **outdoor workers** and **individuals experiencing homelessness**. These individuals may also lack access to comprehensive medical services, financial resources, and social support. Outdoor work may be halted during high heat, creating economically insecure conditions for outdoor workers. Many **migrant or seasonal laborers** and members of **immigrant communities** work outdoors, and so many be affected. **Financially constrained households**, **residents of mobile homes**, and **low resourced people of color** are more likely than the general population to live in inadequately insulated homes, to be unable to afford air conditioning, or to struggle to cover costs associated with heat-related illness or injury or missed work. **Incarcerated individuals** may also face high levels of heat exposure.

During high heat events, many community members cope by operating air conditioning. Widespread air conditioning use, in conjunction with mechanical stress on **electrical infrastructure**, can cause rolling power outages and damage to power lines. Blackouts can have widespread impacts on community health, provision of public services, and **economic activity**.

Warmer waters may increase temperatures in **marshland habitats** so that native species can no longer survive. Warmer temperatures may also cause harmful algal growth that can harm both plant and wildlife species.

## HUMAN HEALTH HAZARDS

Human health hazards are bacteria, viruses, parasites, and other organisms that can cause diseases in people. Climate-related human health hazards are usually diseases carried by animals that are considered pests, such as mice and rats, mosquitos, and ticks.

**Persons with chronic health problems** may have weaker immune systems due to pre-existing conditions that make it more difficult to fight off new illnesses, and **seniors** may face similar challenges. In particular, **seniors living alone** may have difficulty seeking medical care due to mobility challenges or other disabilities.

**Financially constrained households**, including **low-resourced people of color** may be living in conditions that increase the chances of catching an illness. Members of these households, along with **migrant and/or seasonal workers** may not be able to take time off work or have access to quality medical care in the event of illness. **Persons in overcrowded households** may face similar challenges. Close confinement among **incarcerated individuals** and limited access to medical and sanitary services means that incarcerated individuals are particularly vulnerable to human health hazards. **Persons experiencing homelessness** can be directly exposed to disease vectors, and a lack of hygiene supplies, facilities, or access to health care can exacerbate health impacts.

Any economic activity or community service that depends on people working in close contact for its functioning could be impacted by human health hazards. The city's **medical response services** are most vulnerable, as workers may be incapacitated by disease at the same time that demand for medical services are at their peak.

## INLAND FLOODING

Salinas's average precipitation levels are expected to increase slightly over the course of this century, from a historic average of 15.1 inches of rainfall per year between 1961 and 1990, to 17.8 inches by the end of the century. Elevated rainfall levels are projected to coincide with a change in overall rainfall patterns, leading to less frequent but higher-intensity storms, which are more likely to result in large-scale flooding.

**Financially constrained households** are less likely to have the income or assets needed to prepare for or recover from flooding. Residents of these households can lose income if their work is interrupted by flooding, and they may struggle to cover medical costs from illness or injury. **Low resourced people of color**, facing financial constraints as well as disparities in living conditions and institutionalized bias, may live in housing that is not well maintained or is located in areas exposed to flooding.

Some residents may face elevated levels of exposure to flood risks due to the nature of their work or housing situation, including **individuals experiencing homelessness**, increasing numbers of whom are living along the City's waterways. **Mobile homes** are generally less structurally sound than other housing types, and are therefore at higher risk of being damaged by floodwaters. Rancho Salinas Mobile Park, Sherwood Lake Mobile Home Park, Lamplighter Salinas, and Cypress Mobile Home Park are located in or near mapped flood hazard zones, and some mobile parks have been forced to evacuate during recent storms. **Pollution-burdened populations** are also at risk, as flooding can inundate these areas, causing toxic chemicals and contaminants to spread into the water and soil and threatening public health.

**Outdoor workers** can be indirectly harmed by flooding if their jobs are halted or disrupted, and outdoor workers may not have the financial means to make up for the lost work Heavy rainfall may also expose workers in the construction and home retrofit industry to higher levels of mold. **Migrant and seasonal workers** are especially vulnerable, as they may lack access to legal protections, social support, and insurance.

A resident's ability to receive timely flood warnings and reach support and emergency response services has a large impact on their flood vulnerability. **Linguistically isolated populations**, **persons without access to lifelines**, such as vehicles or communication systems, **individuals with disabilities**, and **seniors** may have trouble receiving timely and appropriate flood warnings.

Flooding has the potential to severely damage transportation infrastructure and interrupt transportation services, including parts of **major roads and highways** that can serve as evacuation routes. This can hinder **public transit**, delay response time of **emergency services**, and affect freight movement and other economic activities. Flooding on **rail lines** can damage tracks and disrupt service if conditions are too dangerous for trains to travel on them.

**Electrical infrastructure** and **communication facilities** can be damaged during floods and interrupt electricity and communication services. Several **health facilities**, **solid waste facilities**, **schools**, and **parks** are also located within mapped floodplains and could be damaged by flooding.

## LANDSLIDES

Some areas in central and southern Salinas are at risk of landslides. A landslide could severely damage Salinas' **transportation** and **energy infrastructure and services**. This includes **bridges** that run over or near at-risk slopes, other **major roads and highways**, and **power lines** and **gas pipelines** in the area.

Damages to the city's transportation and energy infrastructures could have severe impacts on community life throughout Salinas.

Landslides can damage the foundations of homes or destroy them completely. **Mobile homes** are generally less structurally sound than other types of housing, and thus may be especially susceptible to landslide damage. Several mobile home parks are all located within close proximity to landslide hazard areas. **Financially constrained households** may live in homes that are less structurally sound and may lack the resources to make necessary retrofits or recover from landslide damage. **Individuals experiencing homelessness** could also be injured or lose personal belongings during a landslide.

**Persons living on single access roads** could become isolated in the event of a landslide if roadways are damaged. **Seniors**, especially **seniors living alone**, also risk experiencing isolation in the event of a landslide.

Monterey County Youth Center, Monterey County Jail, and Monterey County Juvenile Hall are all located in or near landslide hazard areas, making **incarcerated individuals** vulnerable to landslides. **Linguistically isolated persons** and **outdoor workers** are at risk due to limited access to communications or an increased risk of economic disruption.

Landslides could also impact several types of assets and facilities in Salinas, including **medical buildings** and **services**, **schools**, **parks**, and **hazardous materials sites** that may be damaged during a landslide event.

## SEA LEVEL RISE

Sea level rise is the gradual rise of the mean higher high tide line. Rising sea levels could influence community wellbeing in Salinas by infiltrating **groundwater reserves** with seawater. As a result of consistent overdraft of groundwater levels in the Salinas Valley Groundwater Basin, basin levels have dropped, allowing seawater to intrude from the Monterey Bay into aquifers. Drought conditions can lead to deeper and deeper groundwater pumping, and this loss of groundwater exacerbates sea water intrusion. Reductions in water quality associated with sea level rise and saltwater intrusion could negatively affect the **agricultural industry**, which relies on groundwater as a primary water source.

## SEVERE WEATHER

Severe weather includes intense winds, lightning, hail, and related events, which can create secondary effects such as Public Safety Power Shutoff events. **Electricity transmission and distribution lines** and **communication facilities** can be damaged or destroyed by high winds, causing power outages and loss of communication services Severe weather can also severely disrupt **transportation infrastructure** and **services**, as roads may become impassable due to flooding, downed trees, or landslides.

**Financially constrained households** living in low-lying areas or in structures that are less resilient to severe weather face an increased risk of damage to their homes or mold or mildew growth from wet weather. These households are less likely to have the income or assets needed to prepare for, respond to, or to recover from a severe weather event. For these households, lost or damaged property is proportionately more expensive to replace, especially without homeowner's or renter's insurance. **Low-resourced people of color**, in addition to being financially constrained, often face disparities in living conditions and institutionalized bias that lead to reduced access to high-quality housing. These individuals may be more likely to live in housing that is substandard or is located in areas exposed to severe weather. **Mobile homes** are generally less resilient than other homes, making them more susceptible to damage during severe weather events.

**Individuals experiencing homelessness** and **outdoor workers** experience especially high levels of exposure to severe weather and face a greater risk of harm as a result.

**Persons with disabilities** and **seniors** may face challenges receiving severe weather notifications, retrofitting their homes to improve structural integrity, and evacuating. Members who rely on ongoing electrical service for medication or health devices may be especially vulnerable, as severe weather can damage electrical infrastructure and interrupt the power supply. Members of these communities who live alone may have difficulty reaching support or emergency services. **Individuals without access to lifelines** or **who live on single access roads** may also have difficulties receiving help from emergency services and evacuating.

Severe weather can also harm **ecosystems** via the spread of Sudden Oak Death, which is spread more easily by high velocity wind and heavy rainfall, and trees can be downed by high winds. Storms can also lower water quality by washing contaminants and soils into water bodies.

## WILDFIRE AND SMOKE

Wildfires can damage or destroy regional **energy delivery infrastructure**, which can cause power outages that can last for days or weeks depending on the severity of the event. This can directly harm the economy, government operations, and public safety, as well as hinder wildfire recovery efforts. Eleven **communication facilities** are located within a moderate wildfire hazard area and could be damaged by wildfire.

In Salinas, smoke from regional wildfires poses a significant risk. **Children**, **seniors**, and **individuals with chronic illnesses** are all especially susceptible to the health effects of smoke exposure. **Pollution-burdened populations** may have existing health conditions due to the pollutants in the land, water, or air where they live or work, which can be exacerbated by smoke conditions created by regional wildfires. **Households without access to lifelines** or **living on single access roads** may encounter barriers to contacting emergency services.

**Financially constrained households** are vulnerable to wildfire and smoke conditions, as they may lack access to quality medical care and may live in more vulnerable housing. These challenges are often exacerbated for **low-resourced people of color**.

**Outdoor workers** may be directly exposed to smoke and ash from wildfires in the region, causing cause asthma and other respiratory illnesses. If outdoor work is halted during smoke conditions, that may cause significant economic hardships. **Migrant** or **seasonal**

**workers**, **immigrant communities**, and **linguistically isolated communities** who may be harmed may lack access to support services, stable housing, and legal protections, which may make it harder to obtain medical care or seek out alternative career opportunities. **Individuals experiencing homelessness** also experience high levels of direct exposure to smoke and may be unaware of or lack access to support services.

California's prison population serving time for nonviolent crime make up nearly 40 percent of firefighters. This workforce is particularly vulnerable since they cannot unionize and are not protected by minimum wage, worker compensation, and other laws. **Incarcerated and formerly incarcerated individuals** may have limited health care and social support services compared to the general population.

The **agricultural sector** is especially vulnerable to wildfire. Wildfire can destroy agricultural structures, irrigation systems, and equipment, crops, and stored commodities. Fires can also affect **local soil** and **water quality**, and smoke can have negative impacts on crops.

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# Endnotes

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