

Stockton Region Comprehensive Climate Action and Adaptation Plan (CCAAP) Climate Mitigation Action Worksheet

A **Climate Mitigation Action** is a policy, program, or project that reduces GHG emissions and can be enacted by regional entities.

Please take this handout with you for reference as you discuss the actions at each action table. Actions are organized by the same sector categories as the action tables. Please provide any specific feedback or comments at each action table, and take the community survey at the end of the workshop.

Action #	Action Description
Transportation Sector – Mode Shift	
T1	Pedestrian Network: Build more sidewalks, improve sidewalk maintenance, and widen key sidewalks to provide space for outdoor seating and new tree plantings while protecting existing trees.
T2	Bike Network: Develop and maintain bikeways on separate rights-of-way. Require dedication of adequate right-of-way for bicycle use in new arterial and collector streets and street improvement projects. Require safe/secure bicycle parking facilities to be provided at major activity centers along with showers and lockers for major employment sites.
T3	SR2S Programs: Create and/or maintain Safe Routes to School (SR2S) plan and implement programs to help children use active modes of transportation to get to school. Work with local school districts to implement pedestrian crossing enhancements, encourage activities like a walking school bus, and create bike safety educational programs.
T4	School Bus Program: Create and maintain a school bus program by identifying student transportation needs, coordinating with school districts and/or transit providers, and designing safe, efficient routes. Prioritize underserved areas that lack transit access, secure funding (e.g., grants or partnerships), and use low-emission vehicles.
T5	Transit Service: Partner with transit agencies and communities to expand routes, increase frequency on key routes, improve reliability, and enhance service, especially in underserved areas.
T6	Transit Passes: Create a program to provide subsidized/discounted or free transit passes for employees and residents, and expand the free youth transit program currently offered by RTD to cover more school districts and grades.
T7	TDM Program: Identify funding to expand regional transportation demand management (TDM) program to provide vanpool and carpool options and to expand MioCar program.
T8	Rail Service: Pursue and support regional rail expansion for Altamont Commuter Express (ACE) and Amtrak's San Joaquin intercity rail service (e.g., new ACE stations, connecting to BART, connecting rail corridors, etc.).
T9	Infill Development: Develop and implement a program to encourage infill development through tools such as expedited permitting, adjusted fee structures, targeted infrastructure investment, property maintenance incentives, and accessory dwelling unit (ADU) incentives. Incorporate VMT streamlining for infill development.

Action #	Action Description
T10	TOD Zones: Create Transit-Oriented Development (TOD) overlay zones to encourage high-density residential and mixed-use projects in compact, walkable areas with transit access. Incorporate VMT screening for TOD and affordable housing and streamline local transportation analyses. Require new developments to include safe, accessible transit features such as pedestrian and bike connections, sheltered stops, mobility hubs, and park-and-ride facilities.
T11	Traffic Signaling: Maintain and update a schedule for synchronizing traffic signals along arterial streets and freeway interchanges to facilitate the safe and efficient movement of people and goods and to provide signal priority for transit vehicles. Continue to implement a comprehensive signal coordination program for key routes, implement bus priority signaling, and work with Caltrans and SJCOG to implement ramp metering to reduce congestion.
T12	Travel Education: Create a community-based travel education program by partnering with third party organizations to identify and provide transportation education sessions. Provide households with customized information, incentives, and tools to encourage the use of non-automobile transportation modes. This program can also be operationalized through Community Mobility Hubs (as described in the San Joaquin Regional Mobility Hub Plan).
T13	TDM Plan Review: Incorporate transportation demand management (TDM) elements into new development projects as part of plan review process (e.g., bike racks, shared lockers, etc.).
Transportation Sector – Zero-Emissions and Off-Road Vehicles	
T14	Clean Municipal Fleets: Transition municipal fleets to low- or zero-emission vehicles.
T15	Clean Buses: Replace school bus and transit fleets with low or zero emissions options.
T16	Public EV Charging: Provide public EV charging, prioritizing Level 3 chargers.
T17	Clean Freight Plan: Develop a regional freight plan that can help identify and prepare local freight corridors for zero-emission vehicle deployment to support climate goals, attract funding and investments, improve air quality, and enhance the efficiency and sustainability of freight movement.
T18	Warehouse Clean Vehicles: Establish zero emission vehicle requirements or thresholds as part of permitting and land use approval process for new warehouse projects.
OR1	Promote Clean Off-road Equipment: Work with state and local partners to develop financial incentives for construction contractors, farmers, and/or landscapers to electrify or use low-emissions off-road fleets such as a yard equipment exchange program to exchange gasoline- or diesel-powered equipment for commercial-grade zero-emission, electric-battery powered equipment.
OR2	Require Clean Off-road Equipment: Adopt an ordinance requiring use of only electric or zero-emission off-road equipment for all new developments.
OR3	Municipal Clean Off-road Equipment: Replace municipal off-road equipment with low- or zero-emission options and require low- or zero-emissions equipment in contracts.
Buildings & Electricity Generation	
BE1	Public Lighting: Install higher efficiency (e.g., LED) public street and traffic lights and evaluate options to pair with solar PV systems.
BE2	Promote Energy Incentives: Work with utilities to promote existing incentives and develop new incentives for energy efficient and/or electric building upgrades, such as heat pumps.
EG1	Government Solar: Install solar on local government properties and parking lots.

Action #	Action Description
EG2	Promote Solar Incentives: Promote existing solar incentives, provide education/resources, and streamline the solar panel permitting process for residents and businesses.
Waste and Water Supply	
W1	Waste Education: Expand education and outreach efforts to promote proper recycling and composting.
W2	Waste Incentives and Enforcement: Develop an education, incentive, and enforcement program to ensure proper waste diversion and food recovery. The program will begin with education, outreach, and incentives before shifting to penalties for non-compliance.
W3	Construction Waste: Amend the Municipal Code to increase diversion (i.e., reuse or recycling) of non-hazardous construction waste from disposal.
W4	Government Sustainable Purchasing: Develop or update policies for local governments to reuse materials or require purchase of products with high levels of post-consumer recycled content where economically feasible in order to minimize resource consumption.
W5	Biogas Use: Upgrade or install anaerobic digesters at landfills and/or wastewater treatment plants to combust biogas to generate electricity, use for on-site heating, upgrade to renewable natural gas for pipeline injection, or other uses.
WS1	Water Efficiency: Require all new commercial development, including major rehabilitation, renovation, and redevelopment, to adopt best management practices for water use efficiency and demonstrate specific water conservation measures.
WS2	Water Meters: Replace water meters with smart meters community-wide.
WS3	Recycled Water: Increase the amount of recycled water used for water supply instead of groundwater.
Other – Cross-Cutting Actions, Agriculture, Carbon Sequestration	
C1	Climate Information Hub: For each community or region-wide, develop a one-stop-shop climate action webpage where residents and businesses can easily access climate-related resources such as rebates, incentives, regulations, best practices, etc.
A1	Manure Management: Work with local, regional, and state partners to develop a program to promote best management practices for manure management, such as using aerobic dry composting systems, adding urease inhibitors to manure stockpiles, or installing on-farm digesters.
A2	Agricultural Lands: Work with local, regional, and state partners to develop a program to promote management strategies aimed at improving the overall health and functionality of agricultural lands as a mechanism for increasing carbon sequestration and reducing GHG emissions.
S1	Tree Planting: Expand public tree planting in urban areas and develop community tree care/maintenance program. Consider increasing tree planting requirements for parking lots and streets. Work with local utilities to provide funds for street tree programs as an energy reduction measure.
S2	Public Parks: Increase acreage of public parks with reduced turf and increased natural landscapes and vegetation that sequesters carbon. Consider converting previously developed but underused areas to vegetated open spaces.

Stockton Region Comprehensive Climate Action and Adaptation Plan (CCAAP) Climate Adaptation Action Worksheet

A **Climate Adaptation Action** is a policy, program, or project that reduces the impacts of climate hazards such as extreme heat, drought, wildfire, and flooding.

INSTRUCTIONS: Please take this handout with you for reference as you discuss the actions at the adaptation table. Provide any specific feedback or comments at each action table.

Action	Action Description	Hazards Addressed
AD1	Establish a multilingual climate hazards alert system. The system will provide community warnings on extreme heat, wildfire smoke, and flooding in multiple languages with culturally tailored messaging shared via SMS, email, local radio, and social media platforms.	All
AD2	Develop multi-hazard resilience hubs in vulnerable communities. Hubs can serve as cooling and clean air centers during days with extreme heat and poor air quality, with backup power and upgraded HVAC and air filtration systems. Hubs should be designed with input from local residents to ensure accessibility, cultural relevance, and year-round use.	All
AD3	Develop an extreme heat action plan, which will outline City actions, such as distributing preparedness kits to residents, conducting campaigns to share safety tips, resources, and preparedness checklists, opening cooling centers, and collaborating with school districts to integrate heat safety and awareness and adjust sports and recess schedules.	Extreme heat
AD4	Increase tree canopy and integrate heat-resilient infrastructure to provide shade and combat heat, focusing on neighborhoods with the lowest tree canopy or are most vulnerable to heat. Introduce community tree planting programs, volunteer engagement, and youth workforce training initiatives to support long-term tree maintenance and foster community ownership. Introduce engineered shade structures (including solar photovoltaic shade canopies) at key operational and public areas, such as over parking lots, walkways, bike paths, playgrounds, courtyards, and transit stations.	Extreme heat
AD5	Partner with transit agencies to provide free rides to resilience hubs and cooling centers. Work with SJCOG and transit providers to design and implement the program.	Extreme heat
AD6	Connect residents with resources and programs to improve home resilience to flooding and extreme heat. Example actions include supporting residents to access recovery resources in the aftermath of a flood and obtain relocation assistance and/or affordable housing outside of flood hazard zone. For heat, actions could include an incentive program to help households install or upgrade air conditioning, improve energy efficiency, and install cool roofs and cool walls. They could also include a fan and air-conditioning unit distribution or subsidy program and do-it-yourself (DIY) workshops for residents to make simple changes to improve cooling comfort at home.	Extreme heat, flooding
AD7	Upgrade road and pedestrian surfaces for heat and flood resilience. Traditional pavements like asphalt and concrete absorb and retain heat, intensifying the urban heat island effect. To improve resilience, use pavement binders with a higher temperature grade or binders that age more slowly, and install permeable or porous pavement materials that to infiltrate rainwater, reducing runoff and promoting groundwater recharge.	Extreme heat, flooding

Action	Action Description	Hazards Addressed
AD8	Enhance community resilience to wildfire smoke and poor air quality. Install high-efficiency air filtration systems at schools, senior centers, and other critical facilities serving vulnerable populations. Distribute portable air purifiers and N95 masks. Partner with public health agencies and community groups to provide education on smoke exposure and protective measures, host workshops (e.g., build your own air filters), and connect residents to resilience programs and emergency alert systems.	Wildfire smoke and air quality
AD9	Implement and expand General Plan infrastructure flood resilience strategies. Expand adaptation efforts to protect critical community infrastructure by incorporating flood-resilient siting, design, and operational continuity planning. Prioritize siting development in areas with lower exposure to climate hazards and apply design strategies such as elevation, shading, and material selection. Integrate resilient design elements into bike paths, railways, utilities, and evacuation routes to ensure safe and reliable access during flood events, with particular attention to low-income and historically underserved communities."	Flooding
AD10	Use nature-based solutions to support groundwater recharge and stormwater mitigation. Identify areas where parks or natural areas could be expanded to reduce flood risk and replenish aquifers, supporting long-term water supply resilience. Enhancing groundwater recharge can build up water supply in case of drought. Install green stormwater infrastructure such as rain gardens, bioretention planters, and bioswales on city blocks prone to flooding.	Flooding, drought
AD11	Update codes to allow greywater infrastructure, dual plumbing, and rainwater capture systems for on-site water reuse. Investigate and implement code amendments to allow installation of dual plumbing, greywater systems, and rainwater capture systems to enable use of recycled water and/or captured rainwater or greywater generated on-site. Explore community incentives such as rebates, technical assistance, and partnerships with local organizations to support implementation. Establish youth workforce training and volunteer programs promote awareness and support installation efforts.	Drought
AD12	Develop drought-tolerant landscaping and watering practices. Upgrade public, private, and residential developments as well as critical infrastructure to include drought mitigation measures such as native or climate-adapted landscaping, installing smart irrigation controllers and low-flow sprinkler systems that can be integrated with rainwater harvesting systems, and launching a residential lawn replacement incentive program that supports conversion to drought-resilient landscapes.	Drought
AD13	Ensure wastewater treatment plants and sewer systems are functional during heat and flood events. Add redundant power systems and backup power (generators) to ensure continuous operation during power outages. Consider increasing the capacity of treatment facilities to handle larger volumes of stormwater.	Extreme heat, flooding
AD14	Develop a citywide ecosystem services inventory. The inventory should complement existing restoration and hazard mitigation efforts by systematically mapping wetland areas, assessing their ecological function, and evaluating their role in water management, habitat provision, and hazard reduction. Coordinate with regional partners to develop and integrate the inventory into local land use, infrastructure, and adaptation planning to ensure that natural assets are recognized, protected, and leveraged in future resilience investments.	Flooding