

Appendix B

Local Action

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Introduction

This document provides potential actions that could be undertaken at a local level to support the State's climate goals. The applicability and performance of actions may vary across regions.

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This appendix provides examples of local actions that can support the State's climate goals. It is organized into two categories: (A) local municipal code changes, zoning changes, or policy directions that could apply broadly to the community within the general plan or climate action plan area; and (B) mitigation measures that could be required of individual projects under the California Environmental Quality Act (CEQA), if feasible, when the local jurisdiction is the lead agency.

This appendix should be viewed as a general reference document. It should not be interpreted as official guidance or as dictating requirements for a city or county in addressing greenhouse gases (GHGs) in its General Plan or for local project CEQA mitigation. It does not replace or modify existing or future laws, ordinances, regulations, or standards adopted by a regulatory entity and may therefore include examples of local actions that are currently, or may become, mandatory.

This is not considered an exhaustive list, nor does it represent the complete list of actions identified by the State to help meet the 2030 target. Local governments are encouraged to examine additional policies and refine existing policies and measures to address GHG emissions to meet their specific needs. Not all of the listed local measures or CEQA measures listed will be relevant to, or appropriate for, a given area or project. Nothing in the Scoping Plan or this appendix limits the discretion conferred to lead agencies in determining the appropriate level and type of mitigation, so long as their decisions are supportable by evidence in the record as required by CEQA. There is no "one size fits all" solution and different policies will be more suitable in urban and suburban areas versus rural areas, among other considerations.

Climate change planning documents from the California Air Pollution Control Officers Association (CAPCOA) provided the basis for much of the content in this appendix. It should also be noted that the Governor's Office of Planning and Research released a comprehensive update of the *General Plan Guidelines (GPG)* in August 2017. The new GPG includes resources, data, tools, and model policies to help cities and counties update their general plans. Internet links to the CAPCOA planning documents, GPG update, and other references, are listed in Section C of this appendix.

A. Examples of local municipal code changes, zoning changes, or policy directions that could apply broadly to the community within the general plan or climate action plan area:

Energy

- Streamline permitting and environmental review and reduce fees for small-scale renewable energy systems
- Adopt a community solar program to help realize economies of scale and help residents without appropriate rooftop space to participate in clean energy generation

Energy (continued)

- Promote property-assessed clean energy financing districts or other financing mechanisms to fund permanent energy-efficiency, water-efficiency, and renewable energy improvements in the residential and commercial sectors
- Incentivize energy-efficiency upgrades for existing buildings at the time of a major remodel or change of ownership
- Reduce permit fees and streamline permitting requirements for energy-efficiency- and renewable energy-related building renovations
- Implement building energy audit and retrofit programs and residential solar programs
- Adopt residential and commercial energy conservation, renewable energy, and/or zero net energy ordinances (consider requirements for audits or upgrades at major renovation or time of sale)
- Incorporate renewable energy and energy efficiency into public facilities' capital improvements
- Replace public lighting with energy-efficient lighting
- Permit renewable energy generation facilities as of right in zones with compatible uses
- Create incentive programs to promote the building energy-efficiency projects
- Implement large-scale energy storage in commercial and industrial buildings to control peak loads
- Require new residential and commercial construction to install solar or be solar ready (see California Energy Code)
- Encourage the development of brightfields – brownfields that are used to develop solar energy – through tax incentives, streamlining, and use of locally-owned land
- Pursue renewable energy development on municipal buildings or purchase renewable energy to power municipal operations
- Require on-site renewable energy generation by large-scale residential and commercial projects
- Incentivize energy-efficiency upgrades to existing buildings, where appropriate, upon issuing a permit for substantial modification

Transportation and Land Use

- Update Lead Agency's transportation impact analysis guidelines and congestion management plans to comply with SB 743
- Adopt general plan policies and diagram designations and zone map and standards that are consistent with the Sustainable Communities Strategy
- In appropriate locations, adopt: 1) as-of-right zoning, and 2) design standards and guidelines, to enable mixed use, walkable, compact, infill development that includes a range of housing types and affordability levels
- Build infrastructure necessary for residential development in existing communities, and ensure any urban growth boundaries are paired with significant infill promotion strategies and removal of infill development barriers
- Streamline permitting and environmental review and reduce fees for construction of secondary units to promote infill in targeted areas

Transportation and Land Use (continued)

- Streamline local permitting and siting for hydrogen fueling and electric vehicle (EV) charging infrastructure
- Adopt a jurisdiction-wide transportation demand management plan which sets numeric targets or caps for the proportion of non-single occupancy vehicle (SOV) trips associated with new development, and/or an overall vehicle miles traveled (VMT) target
- Require employer-based trip reduction programs and provide funding to support them if feasible
- Update code of ordinances to reduce parking requirements and eliminate parking minimums; impose parking maximums
- Institute paid parking for local on-street parking, structures and lots
- Adopt and implement EV and hydrogen readiness plans
- Adopt voluntary¹ green building standards that exceed minimum State building standards for EV Capable parking spaces (e.g., by requiring installation of EV chargers and/or a larger number of EV-capable parking spaces) or match local climate action plan goals
- Replace public fleet vehicles and trips with electric or alternative fueled vehicles as much as feasible and provide EV chargers in public spaces
- Adopt and implement a bicycle and pedestrian master plan which includes targets for trips taken by bicycle and on foot
- Adopt complete streets policies and active design guidelines
- Develop a transportation impact fee program to fund low-carbon transportation
- Support biogas use in the transportation sector
- Provide incentives for certifying development plans and projects using LEED for Neighborhood Development or similar third-party certification system.
- Partner with local/regional transit agencies to enhance transit ridership
- Adopt a Transportation Management Ordinance to require carpool, electric vehicle, and/or vanpool preferential parking spaces close to the major employment areas
- Adopt a Safe Routes to School Program that encourages youth to walk or ride bicycles to schools
 - o At schools where students drive, reduce the number of student parking spaces to encourage walking, biking and carpooling
- Develop Safe Routes to transit programs for pedestrians and bicyclists
- Develop intelligent traffic management systems to improve traffic flow
- Incentivize use of alternative fuel or high-fuel efficient vehicles by public agencies and private businesses
- Require local public agencies to contract with fleets that set targets and policies for lowering the average GHG emissions of their fleet vehicles
- Require clean vehicles be purchased as part of municipal vehicle fleet procurement

¹ When the local government adopts green building standards that exceed the minimum standards, they become mandatory at the local level.

Transportation and Land Use (continued)

- Adopt regional joint-purchase agreements to facilitate local fleets to purchase EVs, hybrids, telematics, and other technology that can reduce GHG emissions
- Require local specific plans for rideshare-designated parking spaces, new bus stops, employment centers, and commercial areas
- Expand transit and rail services and clean-fueled transit vehicles
- Promote ridesharing and last-mile connections
- Create incentives for electric landscaping power tools and off-road equipment
- Promote smart driving strategies through public education and outreach
- Restrict idling for all vehicles, especially in sensitive areas such as near schools

Natural and Working Lands (NWL)

Policy in this sector should balance carbon sequestration with other co-benefits. The overall objective is to maintain NWL as a carbon sink and minimize the net GHG emissions associated with management, biomass disposal, and wildfire events.

Examples that could be considered include:

- Incorporate NWL conservation into local land use plans including adoption of a natural and working lands climate plan, land climate plan, and the recognition of the climate resiliency benefits of NWL
- Adopt policies that encourage management practices known to enhance carbon sequestration on NWL
- Adopt policies to expand and improve management of urban forests for net long-term carbon storage
- Adopt urban forestry and green infrastructure programs
- Adopt zoning to allow empty lots and other underutilized space to be converted into community gardens and greenspace
- Adopt ordinances preserving and enhancing carbon sequestration of wetlands, forests, croplands, and grasslands
- Adopt plans to conserve lands, water, and other natural features and resources for habitat function, watershed protection, air and water quality protection, and other ecosystem services
- Adopt ordinances preserving trees in urban areas through the review of proposed land use developments where trees are present on either public or private property
- Adopt plans and support projects for forest management activities to restore California forest lands that have high tree mortality and unnaturally dense fuel loads to a fire resilient condition that will mitigate wildfire size and severity
- Promote and encourage the development of value-added alternatives, such as composting, energy, biochar, and wood products to avoid open burning of forest biomass wastes
- Develop strategies to value the benefits of forest fuels reductions on upper-watershed water quality, quantity, and timing

Agriculture

- Incorporate farmland conservation in local land use plans
- Provide incentives for carbon sequestration and carbon-based conservation farming techniques, including the use of biochar and compost from biomass wastes that would have otherwise been landfilled or open burned
- Promote value-added alternatives, such as composting, energy, biochar, and wood products, and prohibit open burning of agricultural biomass wastes
- Develop incentives to reduce applications of pesticides and fertilizers and increase use of compost
- Support development of farmers markets and provide guidance and support for local farmers, especially in disadvantaged communities
- Develop programs to encourage use of composting to enhance soil for carbon sequestration and soil healthy farms plans
- Promote grazing management and animal dietary strategies to reduce methane emissions from enteric fermentation
- Require best management practices for livestock waste for confined animal facilities

Water

- Adopt water-efficient landscaping ordinances (see CALGreen Divisions 4.3 and 5.3), including the use of compost and mulch, to reduce water use and encourage use of greywater for landscaping, when available
- Develop a plan requiring water recycling, and greywater and rain water reuse and provide funding for incentives and other program delivery mechanisms if feasible
- Develop a plan to quantify and reduce GHG emissions at publicly operated treatment works (POTWs)
- Develop a residential water efficiency auditing program
- Create an incentive program to promote efficient water use projects
- Eliminate Homeowner Association requirements for lawns and landscaping
- Work with local water agencies to evaluate the impact of proposed new developments and land use plans on groundwater and long-term water supply

Waste Management

- Prohibit disposal of organic materials at landfills and/or prohibit the jurisdictions' hauler(s) and self-haulers from taking organic material to landfills
- Require edible food recovery programs; require collected organic waste materials be used as feedstock for composting and anaerobic digestion; include assessment of 15 years organics recycling capacity needs in the General Plan; and provide appropriate zoning in compatible areas for large and community-scale composting and digestion operations
- Implement residential and commercial waste prevention, recycling, organics collection, and edible food recovery programs to meet requirements of AB 341, AB 1826, and SB 1383
- Require generators of edible food to have contracts/agreements with food recovery organizations and prohibit edible food from being disposed or destroyed

Waste Management (continued)

- Adopt ordinances to meet zero waste goals by 2020
- Adopt ordinances requiring hauling routes and fuels that minimize vehicle emissions compared to current practices (e.g., through use of renewable fuels, route optimization plan, etc.)
- Adopt a construction & demolition waste recycling ordinance (see CALGreen Divisions 4.4 and 5.4)
- Adopt an ordinance for zero waste from construction and demolition waste
- Adopt green building standards that include targets to exceed minimum State building standards for new construction, including requiring new construction to include bin space for organics recycling (see CALGreen Divisions 4.4 and 5.4 as well as Appendices A4.4 and A5.4)
- Require that landfills incorporate the financial impact of organics disposal reductions pursuant to SB 1383 into their Financial Assurance plans
- Create an effective solid waste management plan to reduce source generation and to divert waste from landfills to achieve emission reductions and address in General Plan
- Ensure compost materials meet standards to be used in rural lands application for carbon sequestration
- Expand anaerobic digestion capacity at existing wastewater treatment plants to allow them to accept food waste
- Require zero waste at public events, including food recovery and recycling
- Require food waste reduction at commercial facilities such as restaurants, hotels, hospitals, etc., including food donations
- Require large commercial landscapers and public projects to use compost-based nutrients and soil amendments on landscaping and plants instead of artificial fertilizers and soil amendments
- Implement recycled content procurement practices in all operations
- Implement a plan for food recovery for municipal food operations
- Establish waste diversion programs like “pay as you throw” where people pay per pick up amount

Short-Lived Climate Pollutants

- Require biogas generation at wastewater treatment plants and methane capture at landfill facilities
- Require that air conditioning and refrigeration units in new construction (and at major renovation) rely on refrigerants with low global warming potential (e.g., they use CO₂ or ammonia instead of hydrofluorocarbons)
- Promote alternatives to open pile burning as disposal options for woody biomass wastes
- Support hazardous fuel reduction, defensible space clearing and forest fuel reduction in rural forested areas with high tree mortality and unnaturally high fuel loads to reduce the size and severity of catastrophic wildfires which reduces the release non-anthropogenic black carbon and methane
- Adopt use of low global warming potential (GWP) alternative refrigerants

Short-Lived Climate Pollutants (continued)

- Work with local utility and waste management agencies to adopt a curbside program for old refrigerators, air-conditioning units, and automobiles to ensure proper disposal of refrigerants
- Adopt programs, ordinances, or regulations to reduce wood smoke from residents, commercial, and recreational activities
- Require alternatives to wood heating such as heat pumps or gas heating devices in new developments, in appropriate climate zones, where infrastructure is available
- Provide incentives to reduce wood smoke by changing out uncertified wood heating devices to gas, electric, or pellet devices
- Implement organics waste prevention, recycling, and food recovery programs

Green Buildings

- When determined to be feasible and achievable within the local jurisdiction, adopt “Tier 2” residential and commercial green building standards of the California Green Building Standards (CALGreen Code²), or a third party green building rating systems such as the LEED or GreenPoint Rated for new construction and existing building retrofits. CALGreen allows a local jurisdiction to adopt “Tier 2” as a more restrictive option. The California Health and Safety Code also allows local jurisdictions to adopt more restrictive building standards based on local conditions. Local jurisdictions also may adopt green rating systems, but in addition to the mandatory CALGreen requirements.
- Incentivize implementation of CALGreen Code building code voluntary provisions to divert and recycle construction and demolition waste, and use locally-sourced building materials and recycled content building materials, including mulch/compost, to the extent possible
- Adopt Guidelines for incentivizing new buildings to maximize energy conservation designs to promote passive solar energy generation, natural ventilation, effective use of daylight, and on-site electricity generation
- Encourage the use of on-site renewable energy combined with storage
- Link green building with transportation planning to encourage lowest possible transportation impacts
- Develop strategies and goals to reduce urban heat islands through cool roofs, urban forestry (shade trees) and cool non-roof surfaces, including covered parking areas with PV systems to provide shading
- Require cool roofs and/or green roofs on new construction, for all buildings or a subset (commercial, multi-family, etc.) of building types
- Require cool paving and/or light reflective permeable surfaces in sidewalks, patios, driveways, parking lots, or other paved areas³

² Title 24 Part 11 of the California Code of Regulations (i.e., CALGreen Code) establishes both mandatory and voluntary building standards. It is published in its entirety every three years and may also include supplements published in intervening years. The most current code requirements should be consulted in determining mandatory versus voluntary provisions (<http://www.bsc.ca.gov/Home.aspx>).

³ A recent CARB-funded study conducted life-cycle assessments of conventional and cool pavements and developed a decision-support tool for local governments to use when considering different pavement materials. The study found that in many communities, cool pavements help to mitigate the urban heat

B. Examples of potentially feasible mitigation measures that could be considered for individual projects under CEQA when the local jurisdiction is the lead agency.

Construction

- Enforce idling time restrictions for construction vehicles
- Require construction vehicles to operate with the highest tier engines commercially available
- Divert and recycle construction and demolition waste, and use locally-sourced building materials with a high recycled material content to the greatest extent feasible
- Minimize tree removal, and mitigate indirect GHG emissions increases that occur due to vegetation removal, loss of sequestration, and soil disturbance
- Utilize existing grid power for electric energy rather than operating temporary gasoline/diesel powered generators
- Increase use of electric and renewable fuel powered construction equipment and require renewable diesel fuel where commercially available
- Require diesel equipment fleets to be lower emitting than any current emission standard

Operation

- Comply with lead agency's standards for mitigating transportation impacts under SB 743
- Require on-site EV charging capabilities for parking spaces serving the project to meet jurisdiction-wide EV proliferation goals
- Allow for new construction to install fewer on-site parking spaces than required by local municipal building code, if appropriate⁴
- Dedicate on-site parking for shared vehicles
- Provide adequate, safe, convenient, and secure on-site bicycle parking and storage in multi-family residential projects and in non-residential projects
- Provide on- and off-site safety improvements for bike, pedestrian, and transit connections, and/or implement relevant improvements identified in an applicable bicycle and/or pedestrian master plan
- Require on-site renewable energy generation
- Prohibit wood-burning fireplaces in new development, and require replacement of wood-burning fireplaces for renovations over a certain size developments
- Require cool roofs and "cool parking" that promotes cool surface treatment for new parking facilities as well as existing surface lots undergoing resurfacing

island effect, but the energy and emissions embodied in cool pavement materials can exceed the expected energy and emissions savings from reduced cooling and heating in buildings. However, reflective pavements offer a one-time global cooling benefit that exceeds the 50-year lifecycle carbon penalty.

⁴ This is not to be confused with the Americans with Disabilities Act (ADA) requirements or other minimum parking requirements for dedicating space to clean air vehicles and/or EV charging infrastructure.

Operation (continued)

- Require solar-ready roofs
- Require organic collection in new developments
- Require low-water landscaping in new developments (see CALGreen Divisions 4.3 and 5.3 and the Model Water Efficient Landscape Ordinance [MWELO], which is referenced in CALGreen). Require water efficient landscape maintenance to conserve water and reduce landscape waste.
- Achieve Zero Net Energy performance building standards prior to dates required by the Energy Code
- Encourage new construction, including municipal building construction, to achieve third-party green building certifications, such as the GreenPoint Rated program, LEED rating system, or Living Building Challenge
- Require the design of bike lanes to connect to the regional bicycle network
- Expand urban forestry and green infrastructure in new land development
- Require preferential parking spaces for park and ride to incentivize carpooling, vanpooling, commuter bus, electric vehicles, and rail service use
- Require a transportation management plan for specific plans which establishes a numeric target for non-SOV travel and overall VMT
- Develop a rideshare program targeting commuters to major employment centers
- Require the design of bus stops/shelters/express lanes in new developments to promote the usage of mass-transit
- Require gas outlets in residential backyards for use with outdoor cooking appliances such as gas barbeques if natural gas service is available
- Require the installation of electrical outlets on the exterior walls of both the front and back of residences to promote the use of electric landscape maintenance equipment⁵
- Require the design of the electric outlets and/or wiring in new residential unit garages to promote electric vehicle usage
- Require electric vehicle charging station (Conductive/inductive) and signage for non-residential developments
- Provide electric outlets to promote the use of electric landscape maintenance equipment to the extent feasible on parks and public/quasi-public lands
- Require each residential unit to be “solar ready,” including installing the appropriate hardware and proper structural engineering
- Require the installation of energy conserving appliances such as on-demand tank-less water heaters and whole-house fans
- Require each residential and commercial building equip buildings with energy efficient AC units and heating systems with programmable thermostats/timers
- Require large-scale residential developments and commercial buildings to report energy use, and set specific targets for per-capita energy use
- Require each residential and commercial building to utilize low flow water fixtures such as low flow toilets and faucets (see CALGreen Divisions 4.3 and 5.3 as well as Appendices A4.3 and A5.3)

⁵ The requirements for outdoor receptacle outlets are located in the California Electrical Code, Article 210.52(E).

Operation (continued)

- Require the use of energy-efficient lighting for all street, parking, and area lighting
- Require the landscaping design for parking lots to utilize tree cover and compost/mulch
- Incorporate water retention in the design of parking lots and landscaping, including using compost/mulch
- Require the development project to propose an off-site mitigation project which should generate carbon credits equivalent to the anticipated GHG emission reductions. This would be implemented via an approved protocol for carbon credits from California Air Pollution Control Officers Association (CAPCOA), the California Air Resources Board, or other similar entities determined acceptable by the local air district
- Require the project to purchase carbon credits from the CAPCOA GHG Reduction Exchange Program, American Carbon Registry (ACR), Climate Action Reserve (CAR) or other similar carbon credit registry determined to be acceptable by the local air district
- Encourage the applicant to consider generating or purchasing local and California-only carbon credits as the preferred mechanism to implement its off-site mitigation measure for GHG emissions and that will facilitate the State's efforts in achieving the GHG emission reduction goal

C. Additional References

- California Air Pollution Control Officers Association, "Model Policies for Greenhouse Gases in General Plans: A Resource for Local Government to Incorporate General Plan Policies to Reduce Greenhouse Gas Emissions", June 2009 – accessible here: <http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-ModelPolicies-6-12-09-915am.pdf>
- California Air Pollution Control Officers Association, "Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures," August 2010 – accessible here: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>
- Governor's Office of Planning and Research, "General Plan Guidelines: 2017 Update" – accessible here: <http://www.opr.ca.gov/planning/general-plan/guidelines.html>
- For a range of local climate actions that include public health, please refer to the CDPH guidance document, "Climate Action for Health: Integrating Public Health into Climate Action Planning" (February 2012)—accessible here: https://www.cdph.ca.gov/programs/Documents/CAPS_and_Health_Published3-22-12.pdf
- Governor's Office of Planning and Research, "Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA," January 2016—accessible here: https://www.opr.ca.gov/docs/Revised_VMT_CEQA_Guidelines_Proposal_Januar

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California Department of Housing and Community Development (2017). *2017 Report to the Legislature: Status of California Green Building Standards Code, CALGreen* – accessible here: <http://www.hcd.ca.gov/building-standards/calgreen/index.shtml>