APPENDIX D
LOCAL ACTIONS

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1. Local Government Actions are Crucial for Supporting Attainment of the State's Climate Goals

Local government efforts to reduce greenhouse gas (GHG) emissions within their jurisdiction are critical to achieving the State's long-term climate goals, and can also provide important co-benefits, such as improved air quality, local economic benefits, healthier and more sustainable communities, and improved quality of life. Indeed, a substantial portion of California's GHG reduction potential comes from activities over which local governments have authority or influence.[1] Since the enactment of Assembly Bill (AB) 32 (Nuñez and Pavley, Chapter 488, Statutes of 2006), many local jurisdictions have sought to identify their role in implementing State-level decarbonization efforts. With increasing severity and occurrence of droughts, wildfires, extreme heat, and other conditions, the need for action is urgent.

Local governments have responsibility and authority over the built environment, transportation networks, and provision of local services. For example, local governments have primary authority to plan, zone, approve, and permit how and where land is developed to accommodate population and employment growth and the changing needs of their jurisdictions. They make decisions on how and when to deploy transportation infrastructure and can promote residential and commercial development that supports transit, bicycling, and walking. Local governments have the authority to adopt building ordinances that exceed statewide building code requirements and facilitate the implementation of zero-emission vehicle (ZEV) infrastructure.

Many jurisdictions have demonstrated bold climate leadership, yet meeting the challenge of climate change requires bolder actions from local governments across the state. For example, the City of Oakland requires all new construction to be all-electric and is currently working on electrifying existing buildings.[2] Starting in 2023, the City of Sacramento will require all new buildings under three stories to be all-electric. By 2026 the city will extend this requirement to all new construction, regardless of height, with some limited exemptions. The City of Sacramento also provides parking incentives for zero-emission carsharing and electric vehicle (EV) charging and will require higher than minimum State-required levels of EV charging infrastructure in new construction starting in 2023.[3] This type of leadership by local governments is critical to implementing State-level measures to address GHG emissions associated with transportation and the built environment.

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[1] Wheeler, S. M., Jones, C. M., & Kammen, D. M. 2018. Carbon Footprint Planning: Quantifying Local and State Mitigation Opportunities for 700 California Cities. *Urban Planning, 3(2), 35-51.* Available at: *https://www.cogitatiopress.com/urbanplanning/article/view/1218*.

[2] City of Oakland. *Building Electrification*. Available at: *https://www.oaklandca.gov/projects/building-electrification* .

[3] City of Sacramento. *Electrification of New Construction.* Available at: *http://www.cityofsacramento.org/SacElectrificationOrdinance*.

This appendix includes recommendations intended to build momentum for local government actions that align with the State's climate goals, with a focus on local GHG reduction strategies (commonly referred to as climate action planning) and approval of new land use development projects, including through environmental review under the California Environmental Quality Act (CEQA). This appendix is not regulatory but is instead intended to provide clarification on specific topics requested by planners, CEQA practitioners, and community groups in response to challenges local jurisdictions face when implementing GHG reduction strategies or approving much-needed housing projects. It is not exhaustive and does not include everything local governments can implement to support the State's climate goals. It focuses primarily on climate action plans (CAPs) and local authority over new residential development. It does not address other land use types (e.g., industrial) or air permitting.

Recommendations in this appendix are meant to be used in combination with other planning and CEQA guidance documents including Chapter 8 of the General Plan Guidelines published by the Governor's Office of Planning and Research (OPR),[4] the State CEQA Guidelines,[5] OPR's CEQA Technical Advisories,[6] as well as guidance from local air districts and the California Air Pollution Control Officers Association (CAPCOA).[7]

The following sections discuss the implications for sustainable development on equity and environmental justice as part of a strategy to combat climate change and provide recommendations to local governments for:

- Developing local CAPs and strategies consistent with the State's GHG emission reduction goals;
- Incorporating State-level GHG priorities into their processes for approving land use plans and individual projects;
- Implementing CEQA mitigation, as needed, to reduce GHG emissions associated with new land use development projects; and
- Leveraging opportunities for regional collaboration.

1.1 Centering Equity in Local Government Action is Key to Addressing the Climate Crisis

Local government action to reduce GHG emissions is not only essential for meeting the State's climate goals; it can build better places for everyone in ways that begin to address the

[4] OPR. *General Plan Guidelines - Chapter 8 Climate Change.* Available at: *https://opr.ca.gov/planning/general-plan/guidelines.html.*
[5] Cal. Code Regs., tit. 14, §§ 15000 et seq.
[6] OPR. *Technical Advisories.* Available at: *https://opr.ca.gov/ceqa/technical-advisories.html.*
[7] CAPCOA. 2021. Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity: Designed for Local Governments, Communities, and Project Developers. Available at: *https://caleemod.com/handbook/index.html*.

entrenched inequities experienced by the most overburdened Californians (e.g., Black, Indigenous, People of Color [BIPOC] and low-income communities). Local policies that make it easier for people to afford homes in places with good access to jobs, services, open space, and education, as well as a variety of transportation options that reduce the need to drive, advance equity and reduce GHG emissions.

Ensuring that vulnerable communities benefit from efforts to reduce GHG emissions is crucial to the State's climate strategy. For example, Senate Bill (SB) 32 (Pavley, Chapter 249, Statutes of 2016) recognized that efforts to meet the State's climate goals must be done in an equitable manner by directing CARB to achieve more stringent GHG emission reductions in a way that benefits disadvantaged communities, who often bear the burden of climate impacts. AB 32 also directs that CARB "ensure that the greenhouse gas emission reduction rules, regulations, programs, mechanisms, and incentives under its jurisdiction, where applicable and to the extent feasible, direct public and private investment toward the most disadvantaged communities in California and provide an opportunity for small businesses, schools, affordable housing associations, and other community institutions to participate in and benefit from statewide efforts to reduce greenhouse gas emissions."[8] To address the State goals for housing affordability, social equity, and climate simultaneously, local government institutions are well-positioned to take on a portfolio of integrated strategies such that housing policies are designed to address climate goals and climate policies are designed to meet the State's housing needs. In many cases, land use strategies that support more compact development in infill areas, particularly those already displaying efficient resident travel patterns, have the greatest potential to reduce emissions while also reducing combined housing and transportation costs for Californians and infrastructure costs for local governments due to avoided new roads, public schools, and other sprawl supporting infrastructure. Infill housing development alleviates pressure to develop on the urban periphery, preserving natural and working lands and areas often at risk of wildfire.

The issues that shape where development goes are complex, but the location and type of new housing that is developed matters for climate, health, and equity. Accelerating housing production to meet the extraordinary need for more homes can help reduce vehicle miles traveled (VMT) and GHG emissions and advance health and equity objectives when new housing is developed in types and locations that align with these goals, and particularly when accompanied by complementary policies and investments to create sustainable communities and prevent displacement of existing residents. See Appendix E, Sustainable and Equitable Communities, for strategies to foster sustainable development.

Fostering transportation-efficient, resource-rich, accessible, and inclusive communities is a key strategy for climate, equity, health, and affordability. Climate-smart locations include neighborhoods, commercial corridors, town centers, downtowns, and other areas where

[8] Health & Saf. Code, § 38565.

residents have access to a broad range of mobility options in addition to private automobiles (such as transit, walking, and biking), as well as where residents have access to housing, jobs, and other key destinations. Such communities make it possible for residents to live, work, and recreate without dependence on a personal car. For trips where driving is required, car trips can be relatively short and public infrastructure should support the use of zero-emission vehicles. The predominant historical land use development paradigm that centers on mobility (how far you can go in a given amount of time) over accessibility (how many key destinations, including jobs, housing, and other services, you can reach in that time) has not resulted in equitable outcomes for BIPOC and low-income households, and, in fact, has exacerbated barriers to access and upward economic progress. Increasing housing opportunities in transportation-efficient locations is a necessary paradigm shift and is part of the State's GHG emission reduction strategy.

However, ensuring that the households that would benefit most from living in more accessible areas are not displaced by new investments requires that State, regional, and local governments proactively anticipate and avoid potential unintended equity and social consequences, including gentrification and displacement of historically underserved and disadvantaged communities. The most recent wave of displacement stems from a variety of factors and policies: exclusionary zoning, job growth and reinvestment, changing housing preferences among higher-income households, local policies and local opposition to new housing development proposals, lack of funding for new affordable housing, increased costs of building new housing, and a dearth of policies to preserve existing affordable housing and protect tenants.[9] These variables interact to drive up housing prices and rents for all households—particularly low-income and BIPOC households—increasing displacement pressures in established neighborhoods and forcing people to live in car-dependent neighborhoods away from community support systems and economic opportunities and increase households' combined housing and transportation costs.[10] Policies to facilitate both market rate and subsidized affordable housing production in infill neighborhoods should, over time, stabilize housing costs, minimize displacement, and create new housing opportunities in transportation-efficient locations.

Communities and local jurisdictions have a range of tools and strategies that they can utilize to proactively avoid displacement while facilitating much-needed new infill housing development. The State encourages local jurisdictions and communities to cooperatively develop strategic anti-displacement and neighborhood stabilization plans. Some California jurisdictions have developed these strategic plans (e.g., the City of Oakland's Roadmap to Promote Housing

[9] See resources posted at the Urban Displacement Project: *https://www.urbandisplacement.org/about/what-are-gentrification-and-displacement/*.
[10] Ewing, R., & Hamidi, S. 2017. *Costs of Sprawl.* Taylor & Francis.

Equity[11] and the City of San Jose's Citywide Anti-Displacement Strategy[12]). Jurisdictions and communities that have not implemented localized anti-displacement strategies can review lessons from other jurisdictions and refer to a 2021 literature review funded by CARB that examines the real-world effectiveness of various strategies to curb displacement.[13] In addition to documenting the efficacy of different strategies, the literature review also examines the potential of each strategy to prevent displacement, the type of regional housing market where the strategy is most effective, the most appropriate scale to implement different strategies, and the timeframe for preventing displacement.

The Department of Housing and Community Development's (HCD) recently established Prohousing Designation Program also recognizes local jurisdictions that take actions to accelerate housing production while promoting holistic land use planning that reflects the State's climate goals and helps to reduce VMT.[14] Local governments that earn the prohousing designation are effective at simultaneously promoting multiple objectives, including: increasing housing supply, affirmatively furthering fair housing, preserving existing affordable housing, and supporting VMT reduction. Communities that earn the prohousing designation can receive additional points or preference in the scoring of competitive State housing, community development, and infrastructure funding programs.

2. The Role of Local Climate Action Planning in Supporting the State's Climate Goals

Local governments across the state have developed different types of plans to tackle climate change, including CAPs, sustainability plans, or GHG reduction plans incorporated into a general plan.[15] While CAPs have become an important avenue for climate action at the local level, 47 percent of California cities and counties have no known CAP.[16] Many jurisdictions find that performing or hiring consultants to perform a GHG inventory and developing a CAP is

[11] City of Oakland. 2015. *A Roadmap Toward Equity: Housing Solutions for Oakland, California.* Available at: *https://www.policylink.org/sites/default/files/pl-report-oak-housing-070715.pdf.*
[12] City of San Jose. 2019. *Community Strategy to End Displacement.* Available at: *https://www.sanjoseca.gov/your-government/departments-offices/housing/resource-library/housing-policy-plans-and-reports/citywide-anti-displacement-strategy*.
[13] Karen Chapple & Anastasia Loukaitou-Sideris. 2021. White Paper on Anti-Displacement Strategy Effectiveness. CARB Research Contract Number 19RD018. Available at: *https://ww3.arb.ca.gov/research/single-project.php?row_id=68795*.
[14] Department of Housing and Community Development. 2022. *Prohousing Designation Program*. Available at: *https://www.hcd.ca.gov/planning-and-community-development/prohousing-designation-program*.
[15] CARB's Climate Action Portal Map compiles information about local GHG reduction plans and strategies throughout the state. Available at: *https://webmaps.arb.ca.gov/capmap/*.
[16] Boswell et al. 2019. 2019 Report on the State of Climate Action Plans in California. CARB Research Contract Number 17RD033. Available at: *https://ww2.arb.ca.gov/sites/default/files/2020-03/17RD033.pdf*.

costly and time-consuming, regardless of their desire to take action on climate.[17] This section seeks to identify the most effective GHG reduction actions at the local level and other barriers to local climate action to help ensure that local climate efforts align with the State's climate goals.

For purposes of this appendix, a CAP that has been adopted through the CEQA review process and meets the criteria specified in CEQA Guidelines section 15183.5(b) for a "plan for the reduction of greenhouse gas emissions" will be referred to as a "CEQA-qualified CAP." These CEQA-qualified CAPs allow eligible projects to streamline their determination of significance for GHG emissions. Pursuant to CEQA Guidelines section 15183.5(b), CEQA-qualified plans must:

(A) Quantify greenhouse gas emissions, both existing and projected over a specified period, resulting from activities within a defined geographic area;
(B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;
(C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
(D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
(E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;
(F) Be adopted in a public process following environmental review.

Once adopted, CEQA-qualified CAPs provide local governments with a valuable tool for 1) coordinated climate planning in their community and 2) streamlining the CEQA GHG analysis for projects consistent with a CEQA-qualified CAP. When jurisdictions have a CEQA-qualified CAP, an individual project that complies with the strategies and actions within a CEQA-qualified CAP can tier and streamline its project-specific CEQA GHG analysis to make a determination "that a project's incremental contribution to a cumulative [GHG] effect is not cumulatively considerable" (CEQA Guidelines Sections 15064.4 (b)(3) and 15183.5).[18, 19] Guidance for preparing a CEQA-qualified CAP and using it to tier and streamline CEQA GHG

[17] Deborah Salon, Sinott Murphy & Gian-Claudia Sciara. 2014. Local climate action: motives, enabling factors and barriers. *Carbon Management, 5:1,67-79, DOI 10.4155/cmt.13.81.* Available at: *https://www.tandfonline.com/doi/full/10.4155/cmt.13.81*.

[18] The guidelines implementing CEQA (or "CEQA Guidelines") were amended in 2009 to include criteria for the analysis and mitigation of GHG emissions. The CEQA Guidelines acknowledge the use of plans to reduce GHG emissions in a cumulative impacts analysis. (CEQA Guidelines Section 15183.5(b)).

[19] Cal. Code Regs., tit. 14, § 15183.5.

analysis for future projects can be found in Section 15183.5(b)(2) of the CEQA Guidelines, as well as Chapter 8 of OPR's General Plan Guidelines.[20] Typically, this tiering and streamlining evaluates whether the proposed project would demonstrate consistency with 1) the adopted plans, as well as the growth and land use assumptions that underlie the CEQA-qualified CAP, and 2) all applicable GHG reduction measures identified in the CAP. This includes determining whether the growth associated with the proposed project was accounted for in the CAP's projects and whether the project's GHG reduction measures were identified to help meet the CAP target.

To assist with using a CEQA-qualified CAP for future CEQA streamlining, some jurisdictions have prepared CAP compliance checklists that future projects may use to identify and document the CAP measures that are applicable to the proposed project and how the project is consistent with the CAP measures.[21] The CAP compliance checklists are then included as part of the proposed project's CEQA analysis documenting the project's consistency with the CEQA-qualified CAP. The use of the CEQA-qualified CAP also provides greater clarity in the environmental analysis and more consistent expectations for how GHG reduction measures are applied across projects in the jurisdiction.

Because CEQA-qualified CAPs are voluntary and not subject to any legislative criteria nor requirements, the CEQA Guidelines provide that a plan should include the measures or a group of measures that would collectively achieve the plan's emissions reduction target (Section 15183.5(b)(1)(D)). As the CEQA Guidelines are silent on what measures or groups of measures a CEQA-qualified CAP should contain, this appendix identifies three priority areas that address the State's largest sources of emissions that local governments have authority or influence over. Local jurisdictions should focus on these three priority areas when preparing a CEQA-qualified CAP:

1. Transportation electrification
2. VMT reduction
3. Building decarbonization

By prioritizing climate action in these three priority areas, local governments can address the largest sources of GHGs within their jurisdiction. Local governments that prepare CEQA-

[20] OPR. *General Plan Guidelines - Chapter 8 Climate Change.* Available at: *https://opr.ca.gov/planning/general-plan/guidelines.html.*

[21] Examples of CEQA-qualified CAPs include San Francisco's GHG compliance checklists for private development and municipal projects. These checklists are available at: *https://sfplanning.org/permit/environmental-consultant-pools-guidelines-and-resources*.

qualified CAPs that include strategies in these areas are contributing to alignment between local climate action and the State's climate goals.

The State encourages local governments to follow this approach and adopt a CEQA-qualified CAP addressing the three priority areas. However, as not all jurisdictions have sufficient resources (e.g., political capital, staffing, funding) to do so, jurisdictions that wish to take meaningful climate action (such as preparing a non-CEQA-qualified CAP or as individual measures) aligned with the State's climate goals in the absence of a CEQA-qualified CAP should also look to the three priority areas when developing local climate plans, measures, policies, and actions.

To assist local jurisdictions with developing local climate plans, measures, policies, and actions aligned with the State's climate goals, Table 1 presents a non-exhaustive list of impactful GHG reduction strategies that can be implemented by local governments. The strategies in Table 1 are not applicable to all local jurisdictions, nor are they the only strategies that local governments can adopt, but they represent the core strategies that most jurisdictions in California can implement to reduce GHG emissions regardless of whether they have developed a CEQA-qualified CAP. Reaching the outcomes of these priority GHG reduction strategies requires a locally appropriate, comprehensive adoption of policies in support of these objectives. When developing local climate plans, measures, policies, and actions, local jurisdictions should incorporate the recommendations described in Table 1 to the extent appropriate to ensure alignment with State climate goals.

Table 1 – Priority[22] GHG Reduction Strategies

Priority Areas	Priority GHG Reduction Strategies
Transportation Electrification	Convert local government fleets to ZEVs and provide EV charging at public sites
	Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans)
VMT Reduction	Reduce or eliminate minimum parking standards[23]
	Implement Complete Streets policies and investments, consistent with general plan circulation element requirements[24,25]
	Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc.
	Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking
	Implement parking pricing or transportation demand management pricing strategies

[22] These areas and strategies are designated as "priority" because they are the GHG reduction opportunities over which local governments have the most authority and that have the highest GHG reduction potential.
[23] AB 2097, adopted by the Legislature and signed by the Governor in September 2022 eliminates parking requirements for residential and commercial development within a half-mile of transit. Government Code, § 65863.2. "Residential, commercial, or other development types: parking requirements." Available at: *https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB2097*
[24] U.S. Department of Transportation. *Complete Streets.* Available at: *https://www.transportation.gov/mission/health/complete-streets.*
[25] OPR. *General Plan Guidelines - Chapter 4 Circulation Element.* Available at: *https://opr.ca.gov/planning/general-plan/guidelines.html.*

Priority Areas	Priority GHG Reduction Strategies
	Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing the allowable density of a neighborhood)[26]
	Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert "greenfield" land to urban uses (e.g., green belts, strategic conservation easements)
Building Decarbonization	Adopt all-electric new construction reach codes for residential and commercial uses[27]
	Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers)
	Adopt policies and incentive programs to electrify all appliances and equipment in existing buildings such as appliance rebates, existing building reach codes, or time of sale electrification ordinances
	Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing)
	Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings)

[26] AB 2011, adopted by the Legislature and signed by the Governor in September 2022 streamlines multifamily housing development that meet affordability, labor, and other objective standards in parcels zoned for office, retail, or parking uses. Government Code, § 65912.100. "Affordable Housing and High Road Jobs Act of 2022." Available at: *https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB2011*

[27] California Energy Commission. Local Ordinance Exceeding the 2019 Energy Code. Available at: *https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency-3.*

2.1 Setting Local GHG Targets

Historically, local climate action planning by California cities and counties has primarily focused on adopting supportive measures, such as replacing incandescent traffic lights with LED traffic lights, for reaching the State GHG emission reduction targets mandated by law. Initially, targets were based on consistency with meeting AB 32's 2020 GHG reduction target. More recently, local jurisdictions have looked to consistency with the longer-term targets in following the adoption of SB 32 and issuance of various executive orders (e.g., EO B-30-15 and EO B-55-18) to look beyond 2020 (e.g., 2030, 2045, 2050, etc.), when setting longer-term targets. In September 2022, Governor Newsom signed AB 1279 (Muratsuchi and Garcia, Chapter 337, Statutes of 2022), which codifies a statewide target to achieve carbon neutrality by no later than 2045. The State's climate strategy and the role of local governments continue to evolve as climate goals become more refined and ambitious, and as we advance our understanding of GHG emission sources. To be consistent with science-based statewide targets, local GHG reduction targets should evolve as well. In addition to being required for a local CAP to comply with CEQA, local targets have long been recommended as part of the process of developing, monitoring, and updating a CAP regardless of whether it is CEQA-qualified.[28]

The agency preparing a local GHG reduction target is responsible for determining the precise method for doing so. This appendix is not intended to limit or to provide an exhaustive list of options for setting a local GHG reduction target. Any target should be supported by substantial evidence and meet the criteria in CEQA Guidelines Section 15183.5. Ultimately, a jurisdiction's GHG reduction efforts and target(s) should help to better inform decision-makers and the public about the sources of GHG emissions under a jurisdiction's control (also known as a GHG emissions "inventory") that would be affected by a proposed project and provide a basis for identifying ways to avoid or reduce potentially significant GHG emission impacts. It can be challenging to localize and sub-allocate an individual jurisdiction's share of the GHG reductions needed to curb a global crisis. Developing a localized GHG reduction target requires an adequate local GHG inventory from which to calculate a target, which most jurisdictions have not developed. The 2017 Scoping Plan Update suggested some non-binding options for setting GHG reduction targets.[29] In recognition of different sources of, and opportunities to reduce, GHG emissions, this appendix recognizes the complexities involved in local GHG target-setting and, as a result, does not recommend a specific GHG target or target-setting method for local governments. However, the appendix presents some considerations for various target-setting approaches below.

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[28] Climate Smart Communities. 2014. Climate Action Planning Guide. Available at: *https://cdrpc.org/wp-content/uploads/2015/05/CAP-Guide_MAR-2014_FINAL.pdf.*

[29] In the 2017 Scoping Plan, CARB recommended per capita, plan-level GHG targets of 6 MTCO2e per capita in 2030 and 2 MTCO2e per capita in 2050. Because the State is now pursuing carbon neutrality no later than 2045, CARB recommends that jurisdictions focus on developing locally appropriate, plan-level targets that align with the trajectory to carbon neutrality instead of focusing on a per capita 2050 target.

GHG reduction targets should typically be estimated for specific years aligned with the State's long-term climate targets established through existing laws or policy guidance. Various target years that are often, but not always, used in climate action planning include 2020 (for AB 32, SB 375, and EO S-3-05 consistency), 2030 (for SB 32 and EO B-30-15 consistency), 2035 (for SB 375 consistency), 2045 (for EO B-55-18 consistency, and there is now a statutory 2045 target in AB 1279), and 2050 (for EO S-3-05 and EO B-30-15 consistency),[30] as well as horizon years of local planning documents, such as general plans.

When establishing GHG reduction targets, jurisdictions should consider their respective share of the statewide reductions necessary to achieve the State's long-term climate target for each target year, and how they can best support those overall goals. Jurisdictions should also evaluate their specific inventory profile when establishing targets consistent with the State's long-term climate targets and should tailor their specific inventory profile to ensure the sectors included in the State's targets align with those included in the local jurisdiction's inventory and target, recognizing each region's distinctive sources and profile. For example, as the State's long-term climate targets address all emissions sectors within the state, a jurisdiction without an airport or port should "factor out" and remove these sectors from the State's long-term climate target when establishing local reduction targets. In essence, local governments should focus on sources and actions within their control, and set targets that support overall state goals.

Generally, a city or county that periodically examines their long-term GHG reduction trajectory is in a better position to determine whether GHG emission levels contemplated in their CAP are sustainable. This type of long-term approach benefits from interim reduction targets rather than a single target. Local governments that choose to adopt a single target year or opt to use a different method (e.g., project-by-project analysis, adopted significance thresholds, specific regional emissions targets, other State-related climate programs, etc.) should explain why their approach reflects sensible long-range planning horizons and should provide substantial evidence to support a conclusion that GHG emissions would decline along a trajectory consistent with the State's climate goals.

One approach to setting targets is to align local GHG-reducing strategies and actions with the respective State policies that will deliver GHG emission reductions, if successfully implemented and supported at the local level.[31] The CAP target-setting process should

[30] AB 32 calls for California to reduce GHG emission to 1990 levels by 2020; SB 375 requires CARB to develop and set regional targets, indexed to years 2020 and 2035, for emission reductions from passenger vehicles; EO S-3-05 established a statewide interim target to reduce GHG emissions to 1990 levels by 2020 and 80 percent below 1990 levels by 2050; SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030; EO B-55-18 and AB 1279 call for carbon neutrality as soon as possible, but no later than 2045; and EO B-30-15 established a statewide interim GHG reduction target of 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

[31] OPR. *General Plan Guidelines - Chapter 8 Climate Change.* Available at: *https://opr.ca.gov/planning/general-plan/guidelines.html.*

account for projected GHG emission reductions from State policies, programs, and strategies implemented over time. However, when using statewide data, local governments should avoid double-counting GHG emission reductions that are achieved through State-level efforts and should ensure that their target focuses on GHG emission reductions within the scope of the CAP. Local jurisdictions should refer to Table 2-2 in Chapter 2 of the 2022 Scoping Plan Update, which summarizes the key State actions (as well as supportive statutes, executive orders, and outcomes) under the Scoping Plan Scenario and identifies approaches to help guide setting targets that align with the State's GHG-reducing strategies. [32]

A number of these key State actions are directly relevant to the priority strategies described in this appendix and should be accounted for in local target-setting, including zero-emission light-duty vehicles (relevant to transportation electrification); smart growth/VMT reduction (relevant to vehicle miles traveled reduction); and new and existing residential and commercial buildings (relevant to building decarbonization). Table 2 summarizes these actions with milestones and benchmarks.[33] Local jurisdictions should consider these recommendations as a starting point when contextualizing the State's climate goals, GHG emissions inventory sectors, and actions for a CAP target-setting process to help align local targets with the State's climate goals.

[32] The Proposed Scenario is the Scoping Plan alternative that most closely aligns with existing statute and Executive Orders and assumes carbon neutrality by 2045 the deployment a broad portfolio of existing and emerging fossil fuel alternatives and clean technologies.

[33] The information in this table should be viewed as a general reference and may serve multiple uses, including providing resources that act as an aid to local governments when developing localized GHG targets for CAPs. The applicability of data, actions, and recommendations may vary across regions and should not be viewed or interpreted as official guidance, as thresholds of significance, or as dictating requirements for GHG target-setting processes. This is not considered an exhaustive list and does not represent the complete list of data resources and tools available. Not every recommendation provided will be relevant to, or appropriate for, a given area or plan.

Table 2 –Summary of Priority Key Actions[34] and Recommendations for CAP Target-Setting Processes

Priority Areas	Related Actions in the Proposed Scenario	Recommendations for Local CAP Target-Setting
Transportation Electrification	100 percent of light-duty vehicle sales are ZEVs by 2035	Potential data sources and tools to localize this for target-setting include EMFAC *Fleet Database* (by county) and *Scenario Analysis Tool* and *Department of Motor Vehicles Database* (by fuel type and registration)
VMT Reduction	VMT per capita reduced 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045	Potential data sources to localize this for target-setting include VMT modeling outputs prepared for, or consistent with, the travel outcomes associated with the adopted SCS or other applicable regional plan
Building Decarbonization	All electric appliances in new construction beginning 2026 (residential) and 2029 (commercial)	Potential data sources to localize these for target-setting include: *Commercial Building Energy Consumption Survey*

[34] These areas and strategies are designated as “priority” because they are the GHG reduction opportunities over which local governments have the most authority and that have the highest GHG reduction potential.

Priority Areas	Related Actions in the Proposed Scenario	Recommendations for Local CAP Target-Setting
	For existing residential buildings, 80 percent of appliance sales are electric by 2030 and 100 percent of appliance sales are electric by 2035 (appliances replaced at end of life) For existing commercial buildings, 80 percent of appliance sales are electric by 2030 and 100 percent of appliance sales are electric by 2045 (appliances replaced at end of life)	*California Commercial End Use Survey* *Residential Appliance Saturation Survey*

California's overall state goal of achieving carbon neutrality no later than 2045 can also inform GHG reduction targets at individual community levels, and some communities or regions may be able to reach neutrality themselves. However, it is important to design targets in ways that support overall state goals, recognizing that each region has distinctive sources and systems. For instance, energy and transportation systems that serve Californians do not stop at jurisdictional boundaries, and some decisions can have ramifications for other communities (e.g., by inadvertently exporting emissions from a jurisdiction with a net-zero target to another jurisdiction with less stringent or no target). Jurisdictions considering a net-zero target should carefully consider the implications it may have on emissions in neighboring communities and beyond. Jurisdictions should also avoid creating targets that are impossible to meet as a basis to determine significance. For example, a net-zero target may imply that the GHG emissions of any project that are not reduced or offset to zero would be considered potentially significant. This may lead to undue burdens and frustrate project approval processes, which may be particularly problematic for residential development in climate-smart, infill areas. In addition, some jurisdictions have more land capacity to remove and store carbon, while others host GHG-emitting facilities that serve necessary functions and will take time to transition to new technology (e.g., municipal wastewater treatment plants, landfills, energy generation facilities). In those cases, jurisdictions that work together on a regional framework to rapidly decarbonize together may have better success in maximizing both emission reductions and other co-benefits. Ultimately, a net-zero target that makes it more difficult to achieve statewide goals by prohibiting or complicating projects that are needed to support the State's climate goals, like infill development or solar arrays, is not consistent with the State's goals. The scale of GHG reductions needed across all communities will be substantial. Local governments have the discretion to adopt targets that apply to their jurisdictions and may utilize the streamlining functions afforded in CEQA[35] so long as those targets are supported by substantial evidence.

3. The Role of Land Use Plans and Development Projects in Supporting the State's Climate Goals

3.1 Housing Demand and GHG Efficiency

Local governments are responsible for adopting and updating land use plans and related implementing ordinances, such as zoning and other development codes, as well as evaluating and making decisions regarding a development project's impact on the environment. The adoption of, or update to, local plans, as well as local discretionary approvals for new development, are subject to environmental review under CEQA, which requires public agencies, including local governments, to evaluate and disclose potential environmental effects from their discretionary decisions and actions and implement feasible mitigation. This environmental review process must address whether GHG emissions from a proposed project,

[35] Cal. Code Regs., tit. 14, § 15183.5.

as defined in Section 15378 of the CEQA Guidelines, would result in a cumulatively considerable contribution to climate change. As part of this review, lead agencies must consider whether a proposed project or plan would be consistent with, and supportive of, the State's climate goals.[36] Section 15064.4(b)(3) of the CEQA Guidelines states that lead agencies should evaluate whether a proposed project would "[c]onflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases." Moreover, CEQA Guidelines Section 15125(d) requires a discussion "of any inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans…regional transportation plans …[and]…plans for the reduction of greenhouse gas emissions," among others.

However, the discretionary processes through which local jurisdictions permit land use development projects vary widely across California and are sometimes not uniformly applied within the same jurisdiction.[37] O'Neill et al. (2022) found that restrictive local zoning and development approval processes are the chief regulatory contributors to California's housing crisis. Local governments have a clear opportunity to eliminate these barriers by reforming their local laws to facilitate dense development in infill areas, particularly those in high-resource and/or low-VMT communities. Local jurisdictions can also choose to adopt ministerial entitlement processes[38] for housing instead of imposing discretionary review processes (some jurisdictions currently even impose multiple layers of discretionary review) that provide project opponents opportunities to slow or stop projects, sometimes without advancing legitimate environmental goals.

The literature review conducted by O'Neill et al. (2022) does not find a consensus among CEQA experts on the impact of litigation (or the threat thereof) on new housing construction. The report finds that litigation rates among entitled housing projects in the jurisdictions studied were low (less than three percent overall). Of the relatively small percentage of projects that were litigated, approximately two-thirds were challenged based on claimed deficiencies in their GHG or VMT analysis. (Note, however, that this statistic in itself is not particularly revealing, since attorneys frequently include in their lawsuits a range of claims regarding various CEQA resource areas to maximize chances of prevailing.) Thus, among other bases for CEQA challenges, CEQA GHG impact analyses and mitigation measures can to be sources of

[36] See, e.g., *Cleveland Nat'l Forest Found. v. San Diego Assn. of Governments* (2017) 3 Cal. 5th 497, 519 (holding that CEQA requires planning agencies to ensure their CEQA GHG analysis stays in step with evolving scientific knowledge and state regulatory schemes).

[37] O'Neill et al. 2022. "Final Report: Examining Entitlement in California to Inform Policy and Process: Advancing Social Equity in Housing Development Patterns." Available at: *https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3956250.*

[38] CEQA environmental review requirements only apply to discretionary project approvals; ministerial approvals are not subject to CEQA review. (Cal. Code Regs., tit. 14, § 15002(i).)

litigation and delay for projects, especially for housing projects in high-resource areas.[39] While the State has long been clear that urban infill projects, particularly in high-resource and low-VMT areas, would be generally supportive of the State's climate and regional air quality goals, such claims can persist. Although CEQA litigation can present additional complexity for housing development, restrictive local zoning and development approval processes are clearly the primary hurdles for housing development in California. Local jurisdictions have clear discretion to remove these barriers.

California continues to experience a severe housing shortage. The State must plan for more than 2.5 million residential units over the next eight years, and no less than one million of those residential units must be affordable to lower-income households.[40] This represents more than double the housing planned for during the last eight years.[41] The housing crisis and the climate crisis must be confronted simultaneously, and it is possible to address the housing crisis in a manner that supports the State's climate and regional air quality goals.[42] The following section includes recommendations to make doing so easier.

3.2 Evaluating Plan-Level and Project-Level Alignment with the State's Climate Goals in CEQA GHG Analyses

CEQA requires lead agencies to analyze the potential GHG-related impacts from their proposed projects.[43] As part of these analyses, agencies consider the extent to which their projects are consistent with the State's climate goals and requirements.[44] Land use plans (e.g., general plans, specific plans, area plans) and development projects have long operational lifespans, potentially locking in GHG emissions for decades. Some agencies have improperly attempted to use compliance with statewide regulatory programs to determine that their projects' GHG impacts are mitigated or are otherwise consistent with the Scoping Plan. While CARB has developed programs such as the State vehicle emissions standards (e.g., Advanced Clean Cars), the Low Carbon Fuel Standard, and the Cap-and-Trade program to reduce sector-wide GHG emissions, these programs were not designed to directly mitigate individual land use development project emissions from a CEQA perspective. Therefore, claimed consistency with these programs should not be used to conclude that motor vehicle

[39] O'Neill et al. 2022. Final Report: Examining Entitlement in California to Inform Policy and Process: Advancing Social Equity in Housing Development Patterns. CARB Research Contract 19STC005. Available at: *https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3956250*.
[40] California Department of Housing and Community Development. 2022. *Statewide Housing Plan*. Available at: *https://www.hcd.ca.gov/docs/statewide-housing-plan.pdf*.
[41] Ibid.
[42] Elkind, E. N., Galante, C., Decker, N., Chapple, K., Martin, A., & Hanson, M. 2017. Right Type, Right Place: Assessing the Environmental and Economic Impacts of Infill Residential Development through 2030. Available at: *https://ternercenter.berkeley.edu/research-and-policy/right-type-right-place/*.
[43] Cal. Code Regs., tit. 14, § 15064.4.
[44] Cal. Code Regs., tit. 14, § 15064.4(b)(3).

emissions from a land use development project are fully mitigated or that such projects are definitively consistent with the Scoping Plan—particularly where the project at issue is not itself directly regulated by these programs.[45]

This section outlines three distinct approaches that lead agencies may consider for evaluating alignment of proposed plans and residential and mixed-use[46] development projects with the State's climate goals and, therefore, may have a less-than-significant impact on GHG emissions. These approaches are recommendations only and are not requirements. They do not supplant lead agencies' discretion to develop their own evidence-based approaches for determining whether a project would have a potentially significant impact on GHG emissions.[47]

The recommendations outlined in this section apply only to residential and mixed-use development project types. California currently faces both a housing crisis and a climate crisis, which necessitates prioritizing recommendations for residential projects to address the housing crisis in a manner that simultaneously supports the State's GHG and regional air quality goals. CARB plans to continue to explore new approaches for other land use types in the future.

3.2.1 Project Attributes for Residential and Mixed-Use Projects to Qualitatively Determine Consistency with the Scoping Plan

Absent consistency with an adequate, geographically specific GHG reduction plan such as a CEQA-qualified CAP, as described in Section 2, the first approach the State recommends for determining whether a proposed residential or mixed-use residential development would align with the State's climate goals is to examine whether the project includes key project attributes that reduce operational GHG emissions while simultaneously advancing fair housing. Consistent with the Priority Strategies shown in Table 1, empirical research shows that the following project attributes result in reduced GHG emissions from residential and mixed-use development. Residential and mixed-use projects that have all of the key project attributes in Table 3 should accommodate growth in a manner consistent with State GHG reduction and equity prioritization goals.

[45] CEQA Guidelines section 15064.4(b)(3) allows compliance with "regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions" as an approach for the determination of significance for GHG emissions.
[46] Mixed use residential is defined as development including both residential and nonresidential uses with at least two-thirds of the square footage designated for residential use per Cal. Gov. Code., tit. 7, § 65589.5(h)(2)(B)).
[47] Cal. Code Regs., tit. 14, § 15064.4.

Table 3 – Key Residential and Mixed-Use Project Attributes that Reduce GHGs

Priority Areas	Key Project Attribute
Transportation Electrification	Provides EV charging infrastructure that, at minimum, meets the most ambitious voluntary standard in the California Green Building Standards Code at the time of project approval[48]
VMT Reduction	Is located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer)[49]
	Does not result in the loss or conversion of natural and working lands
	Consists of transit-supportive densities (minimum of 20 residential dwelling units per acre),[50] or Is in proximity to existing transit stops (within a half mile),[51] or Satisfies more detailed and stringent criteria specified in the region's SCS[52]
	Reduces parking requirements[53] by: Eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or Providing residential parking supply at a ratio of less than one parking space per dwelling unit; or

[48] Cal. Code Regs., tit. 24, Part 11.
[49] Government Code, § 65041.1. "Statewide Environmental Goals and Policy Report." Available at: *https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV&sectionNum=65041.1*.
[50] Federal Transit Administration. 2014. *Planning for Transit-Supportive Development: A Practitioner's Guide.* Available at: *https://www.transit.dot.gov/funding/funding-finance-resources/transit-oriented-development/planning-transit-supportive*.
[51] Washington Department of Transportation. 2013. *Tools for Estimating VMT Reductions from Built Environment Changes.* Available at: *https://www.wsdot.wa.gov/research/reports/fullreports/806.3.pdf.*
[52] One example of an evaluation of consistency with the region's SCS is from the 2013 draft EIR for The Cannery in Davis, p. 3.7-26. Available at: *https://www.cityofdavis.org/home/showpublisheddocument/650/635607772224000000.*
[53] CAPCOA. 2021. Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity: Designed for Local Governments, Communities, and Project Developers. Available at: *https://caleemod.com/handbook/index.html*.

Priority Areas	Key Project Attribute
	For multifamily residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit.[54]
	At least 20 percent of units included are affordable to lower-income residents[55, 56]
	Results in no net loss of existing affordable units
Building Decarbonization	Uses all-electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking[57, 58]

These project attributes are intended as a guide to help local jurisdictions qualitatively identify those residential and mixed-use projects that are ***clearly*** consistent with the State's climate goals, since these attributes address the largest sources of operational emissions for residential projects. In general, residential and mixed-use development projects that incorporate ***all*** of these key project attributes are aligned with the State's priority GHG reduction strategies for local climate action as shown in Table 1 and with the State's climate and housing goals. As such, they are considered to be consistent with the Scoping Plan or other plans, policies, or regulations adopted for the purposes of reducing GHGs; therefore, the GHG emissions associated with such projects may result in a less-than-significant GHG impact under CEQA. Lead agencies may determine, with adequate additional supporting evidence,

[54] AB 2097, adopted by the Legislature and signed by the Governor in September 2022 eliminates parking requirements for residential and commercial development within a half-mile of transit. Government Code, § 65863.2. "Residential, commercial, or other development types: parking requirements." Available at: *https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB2097*

[55] Newmark, G. and Haas, P. 2015. Income, Location Efficiency, and VMT: Affordable Housing as a Climate Strategy. Available at: *https://chpc.net/wp-content/uploads/2016/05/CNT-Working-Paper-revised-2015-12-18.pdf*.

[56] California Housing Partnership Corporation and TransForm. 2014. Why Creating and Preserving Affordable Homes Near Transit is a Highly Effective Climate Protection Strategy. Available at: *https://1p08d91kd0c03rlxhmhtydpr-wpengine.netdna-ssl.com/wp-content/uploads/2015/11/4-AffordableTODResearchUpdate070114.pdf*.

[57] Energy and Environmental Economics. 2019. Residential Building Electrification in California: Consumer economics, greenhouse gases and grid impacts. Available at: *https://www.ethree.com/wp-content/uploads/2019/04/E3_Residential_Building_Electrification_in_California_April_2019.pdf*.

[58] Energy and Environmental Economics. 2021. Achieving Carbon Neutrality in California: PATHWAYS Scenarios Developed for CARB. Available at: *https://ww2.arb.ca.gov/sites/default/files/2020-10/e3_cn_final_report_oct2020_0.pdf.*

that projects that incorporate some, but not all, of the key project attributes are consistent with the State's climate goals.

This qualitative approach to determining the significance of GHG impacts is only intended for residential and mixed-use development projects. CARB will continue to explore this qualitative approach for evaluating the significance of GHG impacts for other types of land uses and encourages CEQA practitioners and lead agencies to do the same. The following two sections describe additional approaches lead agencies may employ in CEQA analyses.

3.2.2 Net-Zero Threshold of Significance

Absent consistency with an adequate, geographically specific GHG reduction plan, as described in Section 2 or consistency with the project attributes approach identified in Table 3 for residential and mixed-use development project types, lead agencies can make a significance determination, consistent with Section 4 below, based on whether the project would result in net-zero GHG emissions. (Note that lead agencies can also use other valid significance thresholds, as described in subsection 3.2.3 below.) Although achieving net-zero GHG emissions may be an appropriate overall objective, it should be noted this approach may not be feasible or appropriate for every project. Furthermore, in determining a project's net GHG impacts, agencies should carefully consider how to view the GHG emissions implications of changes to existing land uses at the project site, particularly where such uses may simply relocate to another location. Lead agencies should consider whether there is substantial evidence that the GHG emissions generated by existing uses of the project site will cease to exist as a direct result of the proposed project and will not merely occur at a different location after the proposed project is developed. If substantial evidence demonstrates that emissions from existing sources currently operating or generating emissions at the project site would continue elsewhere, lead agencies should account for those emissions when calculating the net change in emissions associated with the proposed project.

However, there are recent examples of land use development projects in California that have demonstrated that it is feasible to design projects of nearly any scale that achieve net-zero GHG emissions. Several projects have received certification from the Governor under AB 900, the Jobs and Economic Improvement through Environmental Leadership Act (Buchanan, Chapter 354, Statutes of 2011) and a similar program authorized under SB 7 (Atkins, Chapter 19, Statutes of 2021), demonstrating an ability to design economically viable projects that create jobs while contributing net-zero GHG emissions.[59] These projects have included mixed-use housing and commercial developments, large-scale residential projects, sports arenas, a medical center, and business campuses.

As discussed in Section 3.2.1, "Project Attributes for Residential Projects to Qualitatively Determine Consistency with the Scoping Plan," development in infill and transit-oriented areas

[59] OPR. 2021. *Judicial Streamlining*. Available at: *https://www.opr.ca.gov/ceqa/judicial-streamlining/*.

helps to reduce or avoid increasing GHG emissions. Although, while land use development patterns in California have become, in general, more compact than in the past, new low-density, auto-oriented development is still being planned for and built.[60] Despite this continuing challenge, several large and mixed-use projects within California have ultimately committed to achieving net-zero GHG emissions. For example, as part of the Downtown West Mixed Use Plan,[61] the applicant, Google LLC, ultimately committed to achieving net-zero GHG emissions for an approximately 80-acre mixed-use property, including almost 6,000 residential units, as well as retail, office, and other land uses, located in downtown San Jose, California. This commitment will be achieved through a combination of on-site measures and the purchase and retirement of carbon offset credits from CARB-approved registries in the voluntary market. Similarly, the Oakland Athletics, the applicant for the Oakland Waterfront Ballpark District Project located in Oakland, California, also committed its development to result in no net increase of GHG emissions through a combination of on-site and local mitigation measures and the purchase and retirement of carbon offset credits from CARB-approved registries in the voluntary market.[62] Design and local reduction measures[63] were employed by the developers to reduce 54 percent of total non-residential emissions, while 49 percent of operational emissions were reduced via carbon offset credits from the voluntary market.

Even California's largest, most sprawl-intensive housing developments have ultimately committed to achieving net-zero GHG emissions, even if only after intense legal battles. For example, under the Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan,[64] the applicant, Newhall Land and Farming Company, ultimately committed to achieving net-zero GHG emissions for an almost 12,000-acre plan area in the Santa Clarita Valley. This commitment will be achieved through a combination of on-site and local mitigation measures and the purchase and retirement of carbon offset credits from the voluntary market. Similarly, as a result of a recent settlement agreement, Tejon Ranch Company, the developer for the Centennial Specific Plan located in northern Los

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[60] CARB. 2022. Draft 2022 Progress Report California's Sustainable Communities and Climate Protection Act. P. 22-25. Available at: *https://ww2.arb.ca.gov/sites/default/files/2022-07/2022_SB_150_Main_Report_Draft_ADA.pdf*.

[61] OPR. 2022. *Judicial Streamlining: Archived Applications*. Available at: *https://opr.ca.gov/ceqa/judicial-streamlining/archive.html*.

[62] Ibid.

[63] Local reduction measures include measures to reduce VMT and trips (including reduced parking and transportation network surcharges), installing EV chargers at 10 percent of onsite parking spaces, electrification (i.e., prohibition of non-electric energy, such as natural gas) of 50 percent of residential units, and either converting an existing jet-fueled peaker plant to battery storage or installing 1,013 EV charging stations in the community.

[64] California Department of Fish and Wildlife. 2021. Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan: Final EIS/EIR Documents. Available at: (*https://nrm.dfg.ca.gov/documents/ContextDocs.aspx?cat=NewhallRanchFinal*).

Angeles County,[65] also committed its development to result in no net increase of GHG emissions.[66] Mitigation measures employed by these developers include the prohibition of natural gas in residential and commercial properties; the requirement of on-site solar photovoltaic energy systems on residential and commercial properties; the installation of almost 30,000 EV chargers within and outside the plan area; funding incentives for the purchase of 10,500 passenger EVs and electric school buses and trucks; and procuring and retiring carbon offset credits from the voluntary market.

Although the projects in San Jose and Oakland may not meet all of the key project attributes for qualitatively determining project consistency with statewide GHG goals, as shown in Table 3, and the Newhall and Tejon Ranch projects do not necessarily represent the type of development that California most needs to simultaneously tackle the housing and climate crises, they do demonstrate the feasibility of a net-zero approach for other large and complex residential development projects.

3.2.3 Recommended Thresholds of Significance

Lead agencies may also analyze the GHG impact of proposed projects by employing a threshold of significance recommended by the applicable air district[67] or other lead agencies.[68] As stated in CEQA Guidelines section 15064.7(b), "a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence." However, thresholds for analyzing a project's GHG emissions can become outdated if they are not aligned with the State's most recent GHG reduction goals.[69] To be defensible, CEQA significance thresholds must be supported by substantial evidence.[70] Mitigating GHG emissions below an applicable GHG threshold of significance is one way lead agencies may demonstrate that a project's GHG emissions would have a less-than-significant impact on the environment. For lead agencies that pursue this approach, CAPCOA, which

[65] Los Angeles County Department of Regional Planning. 2019. *Specific Plan No. 02-232 / Centennial Specific Plan.* Available at: *https://planning.lacounty.gov/case/view/specific_plan_no_02_232_centennial_specific_plan*.
[66] Tejon Ranch. 2021. *Settlement Agreement Reached in Centennial lawsuit.* Available at: *https://tejonranch.com/settlement-agreement-reached-in-centennial-lawsuit/*.
[67] CARB research indicates that less than 20 percent of California's population is located in an area with CEQA GHG thresholds of significance addressing SB 32 reduction goals adopted by an air district (Bay Area Air Quality Management District and Sacramento Metropolitan Air Quality Management District).
[68] As with all CEQA significance thresholds, GHG significance thresholds must be supported by substantial evidence. Some lead agencies, such as the City of San Luis Obispo and County of Santa Barbara, have adopted CEQA GHG thresholds of significance due to the absence of a local air district-adopted threshold or because a local CEQA-qualified CAP used to tier and streamline its project-specific CEQA GHG analysis (per CEQA Guidelines Sections 15064.4 (b)(3) and 15183.5) may not be available or applicable.
[69] CEQA GHG analyses (including significance determinations) "must reasonably reflect evolving scientific knowledge and state regulatory schemes." (Cal. Code Regs., tit. 14, §§ 15064.4(b))
[70] Cal. Code Regs., tit. 14, § 15064.7(b).

provides a forum for the sharing of knowledge, experience, and information between air districts throughout the state, has developed tools and guidance for CEQA practitioners, such as the California Emissions Estimator Model[71] (CalEEMod) and guidance for developing and quantifying project-level GHG mitigation measures.[72]

4. Mitigating Greenhouse Gas Emissions Pursuant to CEQA

If a lead agency determines that a proposed project's GHG emissions would result in a significant impact and a cumulatively considerable contribution to climate change, the lead agency must impose feasible mitigation measures to reduce the project's GHG impact to a less-than-significant level.[73] According to the CEQA Guidelines, mitigation measures must be feasible, roughly proportional, not inappropriately deferred, capable of being monitored or reported, fully enforceable, and based on substantial evidence. They must also have a nexus to a legitimate governmental interest.[74] Any GHG offsets used as CEQA mitigation must not be otherwise required (e.g., by regulation or by existing permitted CEQA projects).[75] Lead agencies should present substantial evidence to document that a given mitigation measure would actually serve to mitigate the proposed project's GHG emissions.[76]

CAPCOA has developed tools and guidance for CEQA practitioners for developing and quantifying project-level GHG mitigation measures. These include CAPCOA's Handbook,[77] which it published in 2021 along with the mitigation module in CalEEMod.[78]

As the severe impacts of climate change become better understood and the State's climate goals become more stringent over time, local, off-site CEQA GHG mitigation measures will become increasingly necessary. However, several factors often hinder the adoption of local, off-site GHG mitigation under CEQA, including confusion about CEQA's requirements for GHG mitigation, a focus on carbon offset credits and lack of awareness of local GHG mitigation

[71] CAPCOA. 2022. *California Emissions Estimator Model.* Available at: *www.caleemod.com*.
[72] CAPCOA. 2021. Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity: Designed for Local Governments, Communities, and Project Developers. Available at: *https://caleemod.com/handbook/index.html*.
[73] Cal. Code Regs., tit. 14, § 15126.4(c).
[74] Cal. Code Regs., tit. 14, § 15126.4(a)(4)(A).
[75] Cal. Code Regs., tit. 14, § 15126.4(c)(3)).
[76] Cal. Code Regs., tit. 14, § 15126.4(c)).
[77] CAPCOA. 2021. Handbook for Analyzing Greenhouse Gas Emissions Reductions. Assessing Climate Vulnerabilities and Advancing Health and Equity: Designed for Local Governments, Communities, and Project Developers. Available at: *https://caleemod.com/handbook/index.html*.
[78] CAPCOA. 2022. *California Emissions Estimator Model.* Available at: *www.caleemod.com*.

opportunities, and a perception of high costs (e.g., mitigation costs for project sponsors, administrative costs for lead and responsible agencies).

This section seeks to assist in overcoming barriers to GHG mitigation under CEQA and reduce the use of statements of overriding considerations by lead agencies by establishing a hierarchy of mitigation opportunities that reflect the State's priorities for mitigation. In doing so, this section encourages project applicants and local governments to use local and non-local off-site GHG mitigation approaches (including carbon offset credits) consistent with CEQA's requirements. This section also seeks to clarify how CEQA's mitigation requirements apply to GHG mitigation (including carbon offset credits).

While this section identifies ways to overcome some common barriers to local CEQA GHG mitigation, other barriers may take longer to remove and may even require legislative or other State-level action. Through appropriate application of local GHG mitigation under CEQA, lead agencies have an opportunity to benefit their communities while addressing the climate crisis. Local, off-site mitigation measures implemented in the communities in which project impacts occur have the added potential co-benefit of reducing emissions of toxic air contaminants and criteria air pollutants, which will improve health and social and economic resiliency to climate-related impacts. Verification of local mitigation can also be more straightforward than verification of mitigation that is outside of the jurisdictional boundaries of the lead agency.

4.1 GHG Mitigation Hierarchy

CEQA requires lead agencies to impose all feasible mitigation measures necessary to avoid or reduce GHG emissions to a less-than-significant level prior to certifying an Environmental Impact Report (EIR) or mitigated negative declaration. CEQA does not require mitigation measures that are infeasible for specific legal, economic, technological, or other reasons. If there are not sufficient mitigation measures that the lead agency determines are feasible for avoiding GHGs or reducing GHGs to a less-than-significant level, before approving a project, the lead agency must adopt all measures that are feasible and adopt a statement of overriding considerations (or significance "override") that explains why additional mitigation is infeasible.[79] The statement of overriding considerations must be supported by substantial evidence in the record.

A wide array of CEQA GHG mitigation that can help avoid the need to adopt statements of overriding considerations is discussed in Section 4.1.2 below. The hierarchy outlined below may provide a helpful reference for lead agencies and project sponsors on how to approach mitigation in a way that maximizes benefits to communities surrounding projects, with a particular emphasis on benefitting historically underserved and disadvantaged communities.

[79] Cal. Code Regs., tit. 14, § 15093(b).

The State recommends prioritizing CEQA GHG mitigation according to a geographic hierarchy as follows:

1. On-site design measures;
2. Off-site GHG mitigation:
    a. Funding or implementing local, off-site GHG reduction projects (within the communities or neighborhoods in the vicinity of the project);
    b. Funding or implementing non-local, off-site GHG reduction projects;
3. Purchasing and retiring carbon offset credits:
    a. That originate in the same air basin as the project;
    b. That originate elsewhere in California;
    c. That originate outside of California.

This geographical hierarchy is consistent with SB 7, in which the Legislature mandated a similar hierarchy for land use development projects seeking to be designated as "environmental leadership development projects" and granted certain streamlining provisions. Under this hierarchy, the community in which the project is located is prioritized to receive the environmental and economic co-benefits of the mitigation, especially the reductions in emissions of criteria air pollutants and toxic air contaminants that accompany many GHG reduction measures. Similar prioritization was included in the Oakland Waterfront Ballpark District Project, which required that a minimum of 50 percent of the GHG emission reductions from non-residential land uses result from local, direct measures, and stipulated that no more than 50 percent of reductions may result from offset credits.[80]

The following sections discuss each level of mitigation in the suggested hierarchy of mitigation.

4.1.1 On-site GHG Mitigation

Lead agencies should prioritize on-site design features within the project site that minimize GHG emissions. On-site GHG mitigation includes the implementation of project features, project design, or other measures, including but not limited to energy efficiency measures, installation of renewable energy electricity generation, all-electric building design, EV charging connections, and features that reduce VMT, such as a transportation demand management plan or the provision of shared mobility options (such as facilitating carpooling, providing active transportation and transit vouchers, and implementing telecommuting and alternate work schedules). Chapter 3 of CAPCOA's 2021 *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*,[81] includes

[80] Bonta, Chapter 959, Statutes of 2018. California Environmental Quality Act: Oakland Sports and Mixed-Use Project. Available at: *https://leginfo.legislature.ca.gov/faces/billPdf.xhtml?bill_id=201720180AB734&version=20170AB73492CHP*.

[81] CAPCOA. 2021. Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity: Designed for Local Governments, Communities, and Project Developers. Available at: *https://caleemod.com/handbook/index.html*.

many on-site GHG reduction measures for a variety of project and plan types for lead agencies to consider. Many on-site GHG mitigation measures also result in a reduction in emissions of criteria air pollutants and toxic air contaminants in the air basin in which the project is located, as well as emissions of toxic air contaminants on or near the project site, consistent with legislative direction from SB 32 to "achieve the state's more stringent greenhouse gas emission reductions in a manner that benefits the state's most disadvantaged communities."

4.1.2 Off-site GHG Mitigation

If implementation of all feasible on-site GHG reduction measures is insufficient to reduce a project's impact to a less-than-significant level, the State recommends that the lead agency next explore options to fund or implement ***local***, off-site direct GHG reduction strategies.

Funding or implementing GHG mitigation measures in the project's vicinity may allow the project proponent and the lead agency to work directly with the impacted community to identify and prioritize the mitigation measures that meet its needs while minimizing multiple environmental and societal impacts. Direct, local investments help build relationships for future mutually beneficial development and mitigation opportunities in that community and may also provide a multitude of other co-benefits to the neighborhood's residents. To help remove barriers to employing these types of mitigation, lead agencies may wish to consider developing a local mitigation bank[82] that enables project applicants to fund such projects in exchange for being credited with the resulting GHG reductions in their CEQA analyses. The lead agency should also provide substantial evidence to show that the mitigation would actually serve to mitigate the proposed project's GHG emissions (i.e., a project cannot take credit for unrelated off-site measures that would occur independently of the proposed project). Examples of local investments and their co-benefits include:

- **Local urban forestry** programs that increase the number of trees and other plants in urban areas can sequester carbon, reduce air pollution and ambient temperatures, help manage stormwater and improve water quality, provide shade to reduce energy demand for cooling buildings (and the associated cost and GHG emissions of that energy), improve aesthetics, foster mental health, and encourage physical activity of residents and employees, among many other benefits.
- **Local building retrofit programs** targeting existing residential and commercial buildings in the project's vicinity can fund installation of cool roofs, solar panels, solar or heat pump water heaters, smart meters, and energy efficient lighting and appliances; replacement of fossil fuel-powered appliances with electric models; installation of energy efficient windows, insulation, and other building envelope measures; and

[82] As discussed in Section 5, below, the Regional GHG Collaborative Group along the Central Coast are working to educate and provide avenues for offset projects to help meet current and future local GHG reduction targets and CEQA GHG reduction needs.

implementation of water conservation measures. These investments can improve comfort, reduce utility bills, and help manage the demand for electricity while reducing GHG emissions.

- **Off-site EV chargers** can increase access to EV charging throughout a community. Some examples could include EV chargers in multi-unit dwellings in disadvantaged or low-income areas, public locations (schools, libraries, city centers), workplaces, key destinations (e.g., parks, recreation areas, sports arenas).
- **Public transit subsidies** can increase access to transit and to daily activities served by transit and can encourage less reliance on driving and increased reliance on other modes of transportation (e.g., transit and active transportation), which provides air quality and cost savings co-benefits to residents.

Like many on-site GHG mitigation measures, implementation of most local, off-site GHG reduction strategies also results in reductions of toxic air contaminants and criteria air pollutants and their precursors in the same air basin in which the project is located. The State recommends that lead agencies prioritize GHG mitigation that also increases a community's social and economic resilience to adverse impacts exacerbated by climate change. Applying a local lens to GHG mitigation and allowing for community-led decision-making helps prioritize the mitigation measures that address community-identified needs and can also fill gaps in the existing local approach to climate action.

If a project needs further GHG reductions after adoption of all feasible local, off-site mitigation options, applicants should next consider non-local, off-site mitigation. There has been concern that GHG emission reductions from off-site GHG mitigation measures (including carbon offset credits) may double count GHG emission reductions from California's Cap-and-Trade program. However, off-site mitigation measures, such as EV charging or building efficiency retrofits, are viable options for mitigation under CEQA and would not be double counted, provided they are not otherwise required by law or regulation and would not have happened but for the mitigation requirements of the project. If the mitigation would have been implemented or required through another statute, regulation, existing local program, or requirement other than the project it is mitigating, then the project being mitigated may not also claim credit for the reductions.

4.1.3 Conditions Applicable to Carbon Offset Credits

If implementation of all feasible on-site GHG reduction measures and all feasible off-site GHG reduction measures are insufficient to reduce a project's impact to a less-than-significant level, then the lead agency or project applicant should consider purchasing and retiring carbon offset credits. The State recommends that carbon offset credits retired as CEQA mitigation be registered with a recognized and reputable carbon registry on the voluntary market. For example, while CARB does not review or authorize voluntary-market offset registries or protocols for use as CEQA mitigation, CARB notes that the registries

approved by CARB for the Cap-and-Trade Program also serve as voluntary market credit registries, with voluntary market offsets available for CEQA mitigation purposes.[83]

In addition, starting in 2023, the California Carbon Sequestration and Climate Resiliency Project Registry[84] will be maintained by the California Natural Resources Agency for the purposes of identifying and listing projects in the state that drive climate action on the state's natural and working lands. The Registry is seeking funding from State agencies and private entities and may provide additional carbon offset credits. Note that compliance offsets for the Cap-and-Trade Program (a state market-based carbon program unaffiliated with CEQA) cannot be used for any purpose other than Cap-and-Trade compliance by covered entities and therefore cannot be purchased for use as CEQA mitigation.[85] As with other types of off-site mitigation, the State recommends pursuing carbon offset credits that are as close to the project site as possible in the following order of priority: (1) carbon offset credits that originate in the same air basin as the project, (2) carbon offset credits that originate elsewhere in California, (3) carbon offset credits that originate outside of California.

4.2 Clarifying CEQA's Requirements for GHG Mitigation

Over the years, agencies and courts have provided direction and guidance regarding GHG mitigation. Given the variety of potential projects and mitigation scenarios, some uncertainty and misconceptions persist. For example, when lead agencies consider off-site GHG mitigation (including carbon offset credits), they may sometimes conflate the requirements for compliance-grade offsets in California's Cap-and-Trade regulation with the requirements for GHG mitigation measures under CEQA. The Cap-and-Trade regulation requires that compliance offsets used in the Cap-and-Trade Program meet certain regulatory criteria, including that they be real, additional, quantifiable, permanent, verifiable, and enforceable. In general, the State's Cap-and-Trade Program restricts compliance offsets from being used for any purpose other than Cap-and-Trade compliance, including being used as mitigation under CEQA.

When designing GHG mitigation measures (whether local, off-site mitigation or carbon offset credits), the State recommends that lead agencies focus on applying the requirements specified in the CEQA statute, Guidelines, and case law – e.g., not otherwise required (see CEQA Guidelines section 15126.4(c)(3)); enforceable (see CEQA Guidelines section 15126.4(a)(2)); supported by substantial evidence; etc. – rather than strictly importing all of the regulatory requirements used for compliance offsets within California's Cap-and-Trade

[83] CARB. 2022. *Offset Project Registries.* Available at: *https://ww2.arb.ca.gov/our- work/programs/compliance-offset-program/offset-project-registries*.
[84] Skinner, Chapter 237, Statutes of 2021. Carbon sequestration: state goals: natural and working lands: registry of projects. Available at: *https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB27*.
[85] Cal. Code Regs., tit. 14, Chapter 3, §§ 15000 et seq.

program. It may be appropriate for lead agencies to require CEQA mitigation that helps localities meet targets or commitments set in local planning documents, including CAPs, lacking sufficient funding and are not otherwise explicitly required by regulation. Lead agencies should use substantial evidence to document that a specific off-site mitigation measure is not otherwise required and would not have occurred at that time ***but for*** the requirement to mitigate a project's GHG impacts. Examples of off-site GHG mitigation that would not have occurred but for the requirement to mitigate a project's GHG impacts and could therefore be not otherwise required are included in Section 4.1.2, Off-site GHG Mitigation.

5. Importance of Regional Collaboration

While local jurisdictions have considerable authority to act individually, it is important to consider the many benefits of regional collaboration. Transportation, land use, housing, climate, and energy issues are often interconnected. Local governments can benefit from collaborating with neighboring jurisdictions and regional agencies as they seek to reduce GHG emissions from these sectors. For example, CAPs that consider regional travel patterns, job and housing availability, and regional opportunities to mitigate GHG emissions can be more effective. In collaboration with other regional entities, local jurisdictions can leverage investments, data, best practices, and opportunities for GHG emission reductions in an equitable manner.

Regional collaboration and partnership across levels of government can bring together community leaders, agencies, academia, industry, community-based organizations, and other stakeholders from multiple jurisdictions within a region to share expertise, information, lessons learned, and strategies to promote mutually defined goals. Regional collaboration may include leveraging existing collaboratives and partnerships or establishing new ones. There are many excellent examples of regional collaboration in California that support the intersection of transportation, housing, and land use in tackling climate change. Local jurisdictions can leverage the work of these collaboratives and build on existing efforts to support equitable implementation of priority strategies and GHG mitigation. Examples of existing regional collaboratives include Community Choice Aggregators (CCAs), Regional Energy Networks (RENs), Regional Climate Collaboratives, Regional Housing Collaboratives, and Plug-in Electric Vehicle Collaboratives. The Integrated Climate Adaptation and Resiliency Program (ICARP)[86] offers funding, case studies, and tools for forming regional climate coordination entities.

Regional collaboration has tremendous potential to address barriers and expand opportunities for successful local GHG mitigation. It can help increase local opportunities for feasible GHG mitigation under CEQA that also benefit the communities impacted by the development. It can

[86] Governor's Office of Planning and Research. 2022. *Integrated Climate Adaptation and Resiliency Program (ICARP)*. Available at: https://opr.ca.gov/climate/icarp/.

help overcome barriers, such as project and administrative costs. It can help increase awareness of local mitigation opportunities for project applicants and lead agencies, improve connections with existing programs that offer mitigation opportunities, and identify sites for off-site mitigation opportunities, all in an effort to support a local voluntary mitigation market. And it can help site owners aggregate smaller mitigation projects to potentially reduce costs, increase the efficiency of mitigation projects, and leverage expertise on mitigation strategies and quantification methodologies.

Regional collaboration can also lend support to lead agencies and air districts as they seek opportunities for local GHG mitigation. San Luis Obispo County Air Pollution Control District, County of Santa Barbara, County of Ventura, City of Santa Barbara, City of San Luis Obispo, and Community Environmental Council formed a tactical Regional GHG Collaborative Group to understand and identify opportunities for local carbon sequestration and GHG reduction projects.

Developing a local voluntary mitigation market will help a city or region capture mitigation dollars and provide local benefits that are not realized by the purchase of distant, out-of-state carbon offset credits, while providing greater transparency and enforceability. Keeping GHG mitigation dollars within communities or regions can also be a strategy to address community needs and inequities from historic and ongoing underinvestment in vulnerable and disadvantaged communities.

Creating, sustaining, and expanding regional collaboratives takes time, resources, and expertise that are not always available to local jurisdictions. There may be a role for the State to ensure that all regions have access to mitigation opportunities. One potential avenue to accomplish this would be through the creation of a statewide GHG mitigation bank designed for CEQA mitigation purposes.

6. Conclusion

Local governments are essential partners in California's efforts to reduce GHGs. Their unique expertise and respective authorities allow them to shape growth and development patterns within their jurisdiction, and as a result, local actions remain critical for reducing GHG emissions from the built environment and transportation. Indeed, the Scoping Plan proposes transformative reductions in GHG emissions from the building and transportation sectors. These critical emission reductions rely on significant electrification of the state's vehicle fleet and building stock, but also require a significant shift in the transportation choices for Californians favoring active mobility, shorter trips, and robust public transit rather than sprawl and automobile dependence. Local governments have a critical role to play in this transition through their land use policies, transportation investments, and partnerships with neighboring jurisdictions, community organizations, business and labor groups, and the State.

Local leadership and regional collaboration are paving the way for reducing emissions in these sectors, and this appendix seeks to inform jurisdictions about opportunities to promote transportation electrification, VMT reduction, and building decarbonization through:

- Developing local CAPs and strategies consistent with the framework described in Section 2: “The Role of Local Climate Action Planning in Supporting the State’s Climate Goals;”
- Localizing State-level GHG priorities when approving individual land use plans and projects as described in Section 3: “The Role of Land Use Development Projects in Supporting the State’s Climate Goals;”
- Implementing mitigation to reduce GHG emissions associated with CEQA projects, consistent with Section 4: “Mitigating Greenhouse Gas Emissions Pursuant to CEQA;” and
- Leveraging regional collaboration to enhance the effectiveness of local climate action and overcome barriers to CEQA GHG mitigation as highlighted in section 5: “Importance of Regional Collaboration.”

California must accommodate population and economic growth in a far more sustainable and equitable manner than in the past. California’s climate trajectory relies on local efforts that align with and help implement the State’s priorities. The recommendations provided in this appendix are non-binding and should not be interpreted as a directive to local governments, but rather as evidence-based analytical tools to assist local governments with their role as essential partners in achieving California’s climate goals.