Appendix H
Major Climate Statutes and Regulations

This Page Intentionally Left Blank

Introduction

This document provides an overview of the statutes and regulations that support California's climate actions. This reference material includes summaries and links to the official websites for each of the policies. This list is not meant to be exhaustive, but highlight the more significant existing policies, programs, measures, regulations, and initiatives that provide a framework for helping achieve greenhouse gas (GHG) emissions reductions. Not all of the policies, programs, measures, regulations, and initiatives listed were primarily driven by climate change policy; but can contribute to reductions in GHG emissions as a co-benefit.

This Page Intentionally Left Blank

Table of Contents

This Page Intentionally Left Blank

Appendix H1
Low Carbon Energy Sector

Statute / Regulation / Program / Policy	Table H1-1. Electricity and Natural Gas Description
Clean Energy and Pollution Reduction Act (SB 350, de León, Chapter 547, Statutes of 2015)	This law increases California's renewable electricity procurement requirement from 33 percent by 2020 to 50 percent by 2030. In addition, Senate Bill (SB) 350 requires the California Energy Commission (CEC) to establish statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030. To help ensure these goals are met and the greenhouse gas emission reductions are realized, load-serving entities and large publicly owned utilities will be required to develop and submit Integrated Resource Plans (IRPs), which will detail how each entity will meet their customers' resource needs, reduce greenhouse gas emissions and ramp up the deployment of clean energy resources. In addition, the law calls for transforming the California Independent System Operator (CAISO) into a regional organization, contingent upon approval from the Legislature, and requires the California Public Utilities Commission (CPUC) to direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification. More information on SB 350 can be found at: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB350 http://www.energy.ca.gov/sb350 http://www.cpuc.ca.gov/sb350/
Energy: Greenhouse Gas Reduction (AB 1637, Low, Chapter 658, Statutes of 2016)	This law allowed CPUC to double the Self-Generation Incentive Program (SGIP) budget (from $83 million per year to $166 million per year through 2019) for renewable generation, energy storage and other generation technologies that meet a GHG emissions standard. More information on AB 1637 can be found at: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160AB1637
Emission Performance Standard (SB 1368, Perata, Chapter 598, Statutes of 2006)	This law limits long-term investments in baseload generation by the State's utilities to power plants that meet an emissions performance standard (EPS) jointly established by CEC and CPUC. More information on SB 1368 can be found at: http://www.energy.ca.gov/emission_standards/documents/sb_1368_bill_20060929_chaptered.pdf http://www.energy.ca.gov/emission_standards/
Energy Efficiency (AB 802, Williams, Chapter 590, Statutes of 2015)	This law mandates the establishment of a new statewide building energy use benchmarking and public disclosure program. Assembly Bill (AB) 802 revises Public Resources Code Section 25402.10 to require utilities to provide energy consumption data for covered buildings to the building owners upon request, and requires the CEC to establish a building energy use benchmarking and public disclosure program for certain buildings. More information on AB 802 can be found at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB802 http://www.energy.ca.gov/benchmarking

Statute / Regulation / Program / Policy	Table H1-1. Electricity and Natural Gas Description
Energy Storage	AB 2868 requires CPUC, in consultation with the California Air Resources Board (CARB) and CEC, to direct the State's three largest electrical corporations to file applications for programs and investments to accelerate widespread deployment of distributed energy storage systems, as defined. The bill authorizes CPUC to approve, or modify and approve, programs and investments in distributed energy storage systems, as provided, and requires CPUC to prioritize those programs and investments that provide distributed energy storage systems to public sector and low-income customers.
Multifamily Affordable Housing Solar Roofs Program (AB 693, Eggman, Chapter 582, Statutes of 2015)	This law creates the Multifamily Affordable Housing Solar Roofs Program. It requires that funding be put aside for the implementation of solar roofs on qualified multifamily buildings, starting in 2017, with the goals of at least 300 MW to be installed by 2030. The electricity generated is to be used primarily to offset usage by low-income tenants, with a credit on their utility bill. The program builds on existing legislation directing solar funds to low-income housing. More information on AB 693 can be found at: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160AB693
Net Energy	This law requires a successor tariff to net energy metering (NEM) to maintain
Comprehensive Energy Efficiency Program for Existing Buildings (AB 758, Skinner, Chapter 470, Statutes 2009)	This law requires CEC, in collaboration with CPUC and stakeholders, to develop a comprehensive program to achieve greater energy efficiency in the State's existing buildings. The program is comprised of a portfolio of techniques, applications, and practices, to achieve greater energy efficiency in existing structures, especially those structures that fall significantly below the efficiency required by the current California Building Energy Efficiency Standards. More information can be found at: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200920100AB758 http://www.energy.ca.gov/ab758/
The Waste Heat	This law encourages the installation and use of clean, efficient, small-scale combined More information can be found at: http://www.cpuc.ca.gov/General.aspx?id=5432

Statute / Regulation / Program / Policy	Table H1-1. Electricity and Natural Gas Description
Renewable Energy Resources: Biomethane (AB 1900, Gatto, Chapter 602, Statutes of 2012)	This law required CPUC to develop standards for constituents in biogas to protect human health and pipeline integrity and safety. In support of CPUC standards development efforts, the Office of Environmental Health Hazard Assessment (OEHHA) and CARB, in consultation with other State agencies, undertook certain actions including determining health protective measures for constituents of concern and identifying monitoring, testing, reporting, and recordkeeping requirements necessary to ensure that health protective levels are maintained. More information on CARB and OEHHA staff's recommendations for health protective standards for constituents of concern in biogas upgraded to biomethane and injected into the common carrier pipeline can be found at: https://www.arb.ca.gov/energy/biogas/biogas.htm More information on CPUC's Decision regarding the biomethane implementation tasks in AB 1900 can be found at: http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M086/K466/86466318.PDF http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M089/K271/89271227.PDF
SB 1298 (Statutes of 2000)	This law required CARB to adopt a certification program for Distributed Generation (DG) units that are exempt from local air district permits and to issue guidance for DG units that are subject to district permit. Currently, CPUC and CEC are working to streamline state interconnection processes for DG. More information can be found at: https://www.arb.ca.gov/energy/dg/dg.htm https://www.arb.ca.gov/energy/dg/background/background.htm
AB 970, amended by AB 1685, AB 2778, SB 412, and SB 861 (Statutes of 2000)	This law called for the creation of more energy supply and demand programs, which led to a 2001 CPUC decision creating the Self-Generation Incentive Program (SGIP) to offer financial incentives to their customers who install certain types of distributed generation to meet all or a portion of their energy needs. More information can be found at: http://www.cpuc.ca.gov/sgip/
Energy: Greenhouse Gas Reduction (AB 1637, Low, Chapter 658, Statutes of 2016)	AB 1637 modified and extended the existing Fuel Cell Net Energy Metering Program, administered by CPUC. AB 1637 directs CARB to establish GHG emission standards for fuel cell customer-generators who elect to participate in the program. More information can be found at: https://www.arb.ca.gov/energy/nem/nem.htm
California Building Energy Efficiency Standards (Title 24, Part 6 CCR – Energy Code)	The CEC develops Building Energy Efficiency Standards to provide a host of energy efficiency and environmental benefits for the State of California. Local governments enforce the Standards and have the option to adopt local energy efficiency codes that exceed the statewide Energy Efficiency Building Standards. Optional "Reach" Standards are adopted concurrently with the triennial statewide update. More information on CEC's Building Energy Efficiency Standards can be found at: http://www.energy.ca.gov/title24/
California Appliance Efficiency Regulations (Title 20 CCR)	The CEC's Appliance Energy Efficiency Standards regulate the efficiency standards for appliances sold in California by setting maximum energy or water usage levels; setting minimum energy efficiency design requirements; maintaining a database of certified appliances, and prohibiting the sale of noncompliant and noncertified appliances.

Statute / Regulation / Program / Policy	Table H1-1. Electricity and Natural Gas Description
	More information on CEC's Appliance Energy Efficiency Standards can be found at: http://www.energy.ca.gov/appliances/
Conditions for Solar Energy System Incentives (SB 1, Murray, Chapter 132, Statutes of 2006)	SB 1 provides up to $3.3 billion in financial incentives for the installation of residential, commercial, and institutional rooftop solar PV systems, with a goal of 3,000 MW of solar capacity and solar PV systems on 50 percent of new homes by 2020. The law includes three programs: 1) The California Solar Initiative (CSI) implemented by the CPUC for solar PV system installation on existing residential, existing or new commercial, agricultural, government and non-profit buildings; 2) The New Solar Homes Partnership (NSHP) administered by the CEC for installation of solar systems on new residential buildings; and 3) The publicly-owned utility (POU) component of the program, requiring the POUs to offer financial incentives for solar systems to customers within their service areas. More information can be found at: http://www.gosolarcalifornia.ca.gov/about/gosolar/history.php
Solar Water Heating and Efficiency (AB 1470, Huffman, Chapter 546, Statutes of 2007)	The California Solar Initiative-Thermal Program (CSI-Thermal) was implemented to develop a market for solar water heating and other solar thermal technologies in California via financial incentives, standards, marketing and outreach. The goal of the program is to install the equivalent of 200,000 residential solar water heating systems by 2018 within the investor-owned utility service areas. More information on the CSI-Thermal Program can be found at: www.csithermal.com
Federal Investment Tax Credit (ITC)	The federal business energy ITC available under 26 USC § 48 was expanded significantly by the Energy Improvement and Extension Act of 2008 (H.R. 1424), enacted in October 2008. This law extended the duration of the existing credits for solar energy, fuel cells and microturbines; increased the credit amount for fuel cells; established new credits for small wind-energy systems, geothermal heat pumps, and CHP systems; allowed utilities to use the credits; and allowed taxpayers to take the credit against the alternative minimum tax (AMT), subject to certain limitations. The credit was further expanded by the American Recovery and Reinvestment Act of 2009, enacted in February 2009. In December 2015, the expiration date was extended with a gradual step down of the credits between 2019 and 2022. More information can be found at: https://energy.gov/savings/business-energy-investment-tax-credit-itc
Production Tax Credit (PTC)	Originally enacted in 1992, the PTC has been renewed and expanded numerous times. In December 2015, the Consolidated Appropriations Act of 2016 extended the PTC and permission was granted for PTC-eligible facilities to claim the Investment Tax Credit in lieu of the PTC through the end of 2016 (and the end of 2019 for wind facilities). The Act also created a phase-down in the PTC amount for wind facilities commencing construction in 2017, 2018, or 2019. More information can be found at: https://energy.gov/savings/renewable-electricity-production-tax-credit-ptc
U.S. EPA's Rules to Regulate Power Plants	In fall 2015, under the authority of the federal Clean Air Act (CAA), the United States Environmental Protection Agency (U.S. EPA) issued final rules to limit carbon emissions from future (CAA Section 111(b)) and existing (CAA Section 111(d)) fossil-fueled power plants. More recently, under the Trump Administration, U.S. EPA announced in April 2017 that it was reviewing and, if appropriate, would initiate proceedings to suspend, revise, or rescind both rules.

Statute / Regulation / Program / Policy	Table H1-1. Electricity and Natural Gas Description
	On October 17, 2017, U.S. EPA issued a notice that it is proposing to repeal the rule for existing power plants, also referred to as the Clean Power Plan (CPP). Although the CPP is not currently being enforced and is in active litigation, it remains law. CARB has collaborated with CEC and CPUC to prepare a first-in-the-nation Compliance Plan to meet the requirements of the CPP. The Compliance Plan was approved by CARB and submitted to U.S. EPA. U.S. EPA is currently reviewing the New Source Performance Standards (NSPS) for GHG emissions from new and modified power plants issued under CAA Section 111(b). Until an action is taken by U.S. EPA, the NSPS remains in effect for newly constructed or modified fossil fuel-fired power plants. More information can be found at: https://www.arb.ca.gov/cc/powerplants/powerplants.htm https://www.epa.gov/energy-independence
California Clean Energy Jobs Act (Proposition 39 K-12 Schools Program)	Proposition 39 changed the corporate income tax code and allocates projected revenue to California's General Fund and the Clean Energy Job Creation Fund for five fiscal years (beginning FY 2013-14 through FY 2017-18). Under the initiative, up to $550 million annually is available for appropriation by the Legislature for eligible projects to improve energy efficiency and expand clean energy generation in schools. For more information: www.energy.ca.gov/efficiency/proposition39/index.html
Natural Gas: Leakage Abatement (SB 1371, Leno, Chapter 535, Statutes of 2014)	SB 1371 requires CPUC, giving priority to safety, reliability, and affordability of service, to adopt rules and procedures governing the operation, maintenance, repair, and replacement of those commission-regulated gas pipeline facilities that are intrastate transmission and distribution lines to minimize leaks as a hazard to be mitigated pursuant to the Natural Gas Pipeline Safety Act of 2011, consistent with specified federal regulations, and a specified order of the commission, and to reduce emissions of natural gas from those facilities to the maximum extent feasible in order to advance the state's goals in reducing emissions of greenhouse gases pursuant to the California Global Warming Solutions Act of 2006. The bill requires the commission to require gas corporations to file a report as soon as practicable, that includes a summary of utility leak management practices, a list of new methane leaks in 2013 by grade, a list of open leaks that are being monitored or are scheduled to be repaired, and a best estimate of gas loss due to leaks. CPUC is implementing this legislation via proceeding R.15-01-008. More information on SB 1371 can be found at: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB1371 http://www.cpuc.ca.gov/General.aspx?id=8829
Short-Lived Climate Pollutant Reduction Strategy (SB 1383, Lara, Chapter 395, Statutes of 2016)	CARB, in coordination with other State agencies and local air quality management and air pollution control districts, developed a comprehensive short-lived climate pollutant reduction strategy (SLCP Strategy). The State's framework on oil and gas methane emissions includes the following elements: • Adopt and implement a greenhouse gas emission standards for crude oil and natural gas facilities regulation; • Improve monitoring and standards to detect and minimize emissions; • Effectively implement SB 1371 to reduce emissions from pipelines

Statute / Regulation / Program / Policy	Table H1-1. Electricity and Natural Gas Description
(SB 605, Lara, Chapter 523, Statutes of 2014)	More information on the SLCP Strategy can be found at: https://www.arb.ca.gov/cc/shortlived/shortlived.htm https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB1383 https://www.arb.ca.gov/cc/oil-gas/oil-gas.htm
Natural Gas Storage Wells (SB 887, Pavley, Chapter 673, Statutes of 2016)	SB 887 requires continuous monitoring of natural gas storage facilities to detect leaks, establishes standards for regular maintenance and inspection of wells, and requires operators to develop detailed emergency response plans. More information on SB 887 can be found at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB887
Public Utilities (PU) Code 454.56	CPUC, in consultation with CEC, (1) identifies all potentially achievable cost-effective natural gas efficiency savings and establishes gas efficiency targets for the gas corporation to achieve, and (2) requires gas corporations to first meet unmet resource needs through available natural gas efficiency and demand reduction resources that are cost effective, reliable, and feasible (PU Codes 890-900 provide public goods charge funding authorization for these programs). More information on the Public Utilities (PU) Code can be found at: https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=PUC&division=1.&title=&part=1.&chapter=3.&article=1
Methane Emissions (AB 1496, Thurmond, Chapter 604, Statutes of 2015)	AB 1496 requires CARB, in consultation with air districts, federal and state agencies, independent scientific experts, and others, to monitor and measure high-emission methane hot spots; gather information necessary to analyze the life-cycle GHG emissions of natural gas produced and imported into the state; update relevant policies to incorporate new data; and review the most recent scientific data on methane's role in ozone formation. More information on AB 1496 can be found at: http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160AB1496

Appendix H2
Industry Sector

Statute / Regulation / Program / Policy	Table H2-1. Industry Description
Post-2020 Cap-and-Trade Program (AB 398, E. Garcia, Chapter 135, Statutes of 2017)	This statute clarifies the role of the Cap-and-Trade Program through 2030. In addition, the statute requires CARB to include a price ceiling, price containment points, specific offset credit usage limits for projects with direct environmental benefits within the State, and industry assistance factors for allowance allocation as part of the regulation. Other provisions include developing approaches to increase offset projects with direct environmental benefits in the state while prioritizing disadvantaged communities, Native American or tribal lands, and rural and agricultural regions, with a new Compliance Offsets Protocol Task Force providing guidance to CARB. The statute establishes a new Independent Emissions Market Advisory Committee to report annually on the environmental and economic performance of the Cap-and-Trade Regulation and other climate policies. Two reports are required – one by the California Workforce Development Board on resources needed for education, job training, and workforce development related to meeting GHG reduction goals; the other by the Legislative Analyst's Office on the economic impacts and benefits of the GHG targets. For more information: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB398 https://www.arb.ca.gov/cc/capandtrade/capandtrade.htm
Community-Level Monitoring and Reduction of Criteria Pollutants and Toxic Air Contaminants (AB 617, C Garcia, Chapter 136, Statutes of 2017)	This statute was adopted as companion legislation to AB 398 (E. Garcia, 2017) to strengthen monitoring and reduce air pollution at the community level. It requires CARB to prepare a monitoring plan that assesses the current monitoring network and recommends priority locations around the State to deploy community air monitoring systems. It requires CARB to develop a statewide strategy to reduce criteria pollutants and toxic air contaminants in communities affected by high cumulative exposure through an approved community emissions reduction program, and also expedites implementation of best available retrofit control technology in areas that are nonattainment for federal and State ambient air quality standards. For more information: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB617 https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program-ab617
Short-Lived Climate Pollutant Reduction Strategy (SB 1383, Lara, Chapter 395, Statutes of 2016) (SB 605, Lara, Chapter 523, Statutes of 2014)	The May 2014 First Update to the Climate Change Scoping Plan identified the need for a short-lived climate pollutant reduction strategy (SLCP Strategy) to minimize the impact of these short-term, yet powerful, climate forcers. SB 605 requires CARB to develop a plan to reduce emissions of SLCPs and SB 1383 requires CARB to approve and begin implementing the plan by January 1, 2018. SB 1383 also sets targets for statewide reductions of SLCPs from 2013 levels by 2030–specifically, a 40 percent reduction of methane and hydrofluorocarbons (HFCs), and a 50 percent reduction of anthropogenic black carbon. Over three-quarters of HFC emissions in California come from the use of refrigerants in the commercial, industrial, residential, and transportation sectors. The annual Montreal Protocol Meeting of Parties in October 2016 resulted in an international agreement to globally phase down HFC production. Per the SLCP

Statute / Regulation / Program / Policy	Table H2-1. Industry Description
	strategy, depending on the level of future HFC reductions expected from this agreement, the State may also: - Consider placing restrictions on the sale or distribution of refrigerants with a global warming potential (GWP) >2,500; and - Consider prohibiting refrigerants with a GWP >150 in new stationary refrigeration equipment and refrigerants with a GWP >750 for new stationary air-conditioning equipment. The strategy was approved by CARB on March 23, 2017. On October 24, 2017, CARB held a public workshop to discuss a proposal for reducing high-GWP refrigerant emissions from stationary refrigeration and air-conditioning equipment using a two-step process: (1) begin a rulemaking process to adopt into state regulations, the U.S. EPA's Significant New Alternatives Policy Rule provisions as they relate to prohibitions on certain HFCs; and (2) further evaluate the proposed HFC mitigation strategies in the SLCP Strategy for potential future rulemakings. For more information: www.arb.ca.gov/cc/shortlived/shortlived.htm
Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities	This regulation is designed to reduce methane emissions from oil and gas production, processing, storage, and transmission compressor stations by requiring regulated entities to take actions to limit intentional (vented) and unintentional (leaked or fugitive) emissions from active and idle equipment and operations. These emissions account for about 4 percent of statewide methane emissions. The source categories covered under the regulation currently emit about 2.5 $MMTCO_2e$, and the regulation is expected to reduce those emissions by over 50 percent. Some methane reductions are already achieved as co-benefits of local air district regulations covering volatile organic compound (VOC) emissions. The regulation was approved by CARB on March 23, 2017. For more information: www.arb.ca.gov/cc/oil-gas/oil-gas.htm
Order Instituting Rulemaking to Adopt Rules and Governing - Regulated Pipelines and Gas Leakage Consistent with SB 1371	This rulemaking is carrying out the intent of SB 1371 (De Leon, Chapter 525, Statutes of 2014) to adopt rules and procedures to minimize natural gas leakage from CPUC-regulated natural gas pipeline facilities. Per SB 1371, gas corporations filed reports by May 15, 2015, on their natural gas leaks and their leak management practices. On January 19, 2017, a CPUC/CARB Joint Staff Annual Report on Analysis of June 17, 2016 Utilities' Reports and Commission Staff Proposal on Best Practices was entered into the rulemaking record for public comments. www.cpuc.ca.gov/General.aspx?id=8829
Energy Efficiency and Co-Benefits Audits for Large	On July 22, 2010, CARB approved the *Regulation for Energy Efficiency and Co-Benefits Assessment of Large Industrial Facilities*. The regulation became effective

Statute / Regulation / Program / Policy	Table H2-1. Industry Description
Industrial Sources	on July 16, 2011, and required the largest industrial facilities[1] to conduct a one-time energy efficiency assessment of sources of GHGs to determine the potential emission reduction opportunities, including those for criteria pollutants and toxic air contaminants. CARB staff developed five Public Reports compiling information submitted by the facilities. Phase 2 of the process is for CARB staff to develop a preliminary Findings Report that discusses what actions could be taken to maximize on-site GHG, criteria, and toxic pollutant reductions. Phase 3 of the process will use the Findings Report as a starting point for discussion with stakeholders on subsequent actions and approaches for implementing the identified emission reductions. For more information: www.arb.ca.gov/cc/energyaudits/energyaudits.htm www.arb.ca.gov/cc/energyaudits/publicreports.htm
Motor Vehicle Air-Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing	This regulation is intended to reduce HFC emissions associated with the use of small containers of automotive refrigerant. The regulation applies to the sale, use, and disposal of small containers of automotive refrigerant with a GWP >150. The regulation achieves reductions through implementation of four requirements: (1) use of a self-sealing valve on the container; (2) improved labeling instructions; (3) deposit and recycling program for small containers; and (4) education program that emphasizes best practices for vehicle recharging. This regulation went into effect on January 1, 2010. The target recycle rate was initially set at 90 percent and rose to 95 percent beginning January 1, 2012. For more information: www.arb.ca.gov/cc/hfc-mac/hfcdiy/hfcdiy.htm
SF_6 Limits in Non-Utility and Non-Semiconductor Applications	This regulation was adopted by CARB as an early action measure per AB 32 to reduce sulfur hexafluoride (SF_6), a potent GHG, emissions from non-electric and non-semiconductor applications. The regulation became effective on January 1, 2010. For more information: www.arb.ca.gov/cc/sf6nonelec/sf6nonelec.htm
Regulation to Reduce Greenhouse Gas Emissions from Semiconductor Operations	Semiconductor operation refers to the processing of semiconductor devices or related solid state devices. This may include the processing of diodes, zeners, stacks, rectifiers, integrated microcircuits, transistors, solar cells, light-sensing devices, and light-emitting devices. The types of operations include manufacturers, research and development organizations, and universities that do research and development. This regulation reduces emissions of fluorinated gases from semiconductor and related devices operations by setting maximum allowable GHG emission limits. The regulation was adopted as an early action measure per AB 32 and became effective on January 1, 2010. For more information: www.arb.ca.gov/cc/semiconductors/semiconductors.htm
SF_6 Leak Reduction Gas	The regulation was adopted in 2010 as an early action measure per AB 32. Since the 1980s, SF_6 has been used in electrical power systems as a dielectric medium

[1] Applicable facilities include all California facilities with 2009 GHG emissions equal to or greater than 0.5 $MMTCO_2e$, as well as cement plants and transportation-fuel refineries that emitted at least 0.25 $MMTCO_2e$ in 2009. Combined-cycle electrical generating facilities built after 1995 are exempted.

Statute / Regulation / Program / Policy	Table H2-1. Industry Description
Insulated Switchgear	(insulator) and interrupter (arc quencher) in medium and high voltage gas insulated switchgear (GIS). GIS is commonly found in electrical substations and in underground vaults located in urban areas. The regulation requires GIS owners to reduce SF_6 emissions from electrical equipment used mostly for the transmission and distribution of electricity throughout the State. For more information: www.arb.ca.gov/cc/sf6elec/sf6elec.htm
Limit Use of Compounds with High GWP in Consumer Products	Limiting the use of high-GWP compounds in consumer products is a part of the larger CARB Consumer Products Program, under which CARB adopts regulatory requirements for chemically formulated consumer products, fuel containers, and indoor air cleaning products. The Program is part of the overall effort to reduce VOCs, toxic air contaminants, and GHGs emitted from consumer products. The Regulation for Reducing Emissions from Consumer Products was amended in 2010. The amendments set new VOC limits for multi-purpose solvent and paint thinner products and lowered VOC limits for double phase aerosol air fresheners. In accordance with AB 32, compounds with high GWP are prohibited in these three categories to ensure compounds with GWP are not used as products are reformulated to meet the new VOC limits. The regulation became effective on October 20, 2010. For more information: www.arb.ca.gov/consprod/regact/ghgcp/ghgcp.htm
Refrigerant Management Program	CARB approved the Regulation for the Management of High GWP Refrigerants for Stationary Sources in December 2010 as an AB 32 early action measure. The regulation sets a limit on statewide GHG emissions from stationary facilities with refrigeration systems with more than 50 pounds of a high GWP refrigerant. Provisions of the regulation also pertain to companies and facilities that distribute and reclaim refrigerants and persons that service refrigerant containing appliances. The refrigerant management program is designed to: (1) reduce emissions of high-GWP GHG refrigerants from leaky stationary, non-residential refrigeration equipment; (2) reduce emissions from the installation and servicing of refrigeration and air-conditioning appliances using high-GWP refrigerants; and (3) verify GHG emission reductions. The strategy of the regulation includes: registration; refrigerant leak detection and monitoring; leak repair; reporting and recordkeeping; system retrofit or retirement planning; required service practices; and refrigerant distributor, wholesaler, and reclaimer prohibitions, recordkeeping, and reporting. For more information: www.arb.ca.gov/cc/rmp/rmp.htm
Cap-and-Trade Regulation	Cap-and-trade is a market based regulation that establishes a declining limit on major sources of GHG emissions beginning in 2013 to incentivize investment in cleaner, more efficient technologies. Allowances equal to the total amount of permissible emissions (the “cap”) are created over a given compliance period. Fewer allowances are created each year so that the annual cap declines and statewide emissions are reduced over time. CARB distributes allowances by free allocation and by sale at auctions. Funds from the sale of State-owned allowances at auction are placed into the Greenhouse Gas Reduction Fund. Each regulated entity has a compliance obligation set by its GHG emissions in a given compliance period; entities meet that obligation by acquiring and surrendering allowances. Entities can meet a limited portion of their obligation by acquiring and

Statute / Regulation / Program / Policy	Table H2-1. Industry Description
	surrendering offsets, which are compliance instruments based on verified emission reductions that occur from projects outside the scope of the Cap-and-Trade Program. In July 2017, CARB adopted amendments to the regulation to extend the program beyond 2020, broaden the program through linkage with Ontario, Canada, and generally enhance oversight and implementation. The amendments equate to a cap decline of about 3.5 percent per year from 2021 through 2030. The amended regulation became effective on October 1, 2017. On October 12, 2017, CARB staff held a public workshop to discuss the next steps for amendments to the regulation to comply with the directives of newly passed AB 398 (E. Garcia, 2017), which provides specific direction for the design of a post-2020 Cap-and-Trade Program. For more information: https://arb.ca.gov/cc/capandtrade/capandtrade.htm www.arb.ca.gov/regact/2016/capandtrade16/capandtrade16.htm

This Page Intentionally Left Blank

Appendix H3
Transportation Sustainability Sector

Statute / Regulation / Program / Policy	Table H3-1. Transportation Infrastructure and Land Use Description
Sustainable Communities Act (SB 375, Steinberg, Chapter 728, Statutes of 2008)	This Act supports the State's climate action goals to reduce GHG emissions through coordinated transportation and land use planning with the goal of more sustainable communities. Under the Act, the California Air Resources Board (CARB or Board) sets regional targets for GHG emissions reductions from passenger vehicle use that must be updated every eight years. In 2010, CARB established these targets for 2020 and 2035 for each region covered by one of the State's metropolitan planning organizations (MPO). CARB has been undergoing the process of updating the SB 375 targets, which will take effect in 2018. More information on the Sustainable Communities Act can be found at: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200720080SB375 https://www.arb.ca.gov/cc/sb375/sb375.htm
Active Transportation Program (SB 99, Chapter 359, Statutes of 2013)	This Act consolidates existing federal and state transportation programs, including the Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA), and State Safe Routes to School (SR2S), into a single program with a focus to make California a national leader in active transportation. The goals of the Active Transportation Program (ATP) include an increase in trips accomplished by biking and walking; increase safety and mobility for non-motorized users, advanced active transportation efforts of regional agencies; enhance public health, including reduction of childhood obesity; and fully sharing of benefits with disadvantaged communities. More information on the SB 99 can be found at: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB99 https://www.arb.ca.gov/planning/tsag/bicycle/ati.htm http://www.dot.ca.gov/hq/LocalPrograms/atp/
Legislation in Support of Rail and Transit (SB 862, Chapter 36, Statutes of 2014) (SB 1029, Chapter 152, Statutes of 2012)	These laws establish requirements for agencies receiving Greenhouse Gas Reduction Fund (GGRF) monies, and provide continuous appropriations of future GGRF monies for transportation, transit, land use, housing, and agricultural land preservation programs. In addition, federal funds and state bond funds are appropriated to start construction of high-speed rail and related intercity and commuter rail projects. Ongoing programs such as State Transit Assistance and the State Transportation Improvement Program provide additional funding opportunities for rail and transit. More information on the SB 862 can be found at: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB862 More information on the SB 1029 can be found at: http://www.leginfo.ca.gov/pub/11-12/bill/sen/sb_1001-1050/sb_1029_bill_20120718_chaptered.pdf

Statute / Regulation / Program / Policy	Table H3-1. Transportation Infrastructure and Land Use Description
Transit Oriented Development (SB 743, Steinberg, Chapter 386, Statutes of 2013)	This Act creates a process to change the way that transportation impacts are analyzed under the California Environmental Quality Act (CEQA). Specifically, the Governor's Office of Planning and Research (OPR) is required to amend the CEQA Guidelines to provide an alternative to level of service for evaluating transportation impacts to promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. On January 20, 2016, OPR released for public review a revised proposal for changes to the CEQA Guidelines, in accordance with SB 743, that would streamline CEQA for projects that boost public transportation, walking and biking, and reduce the need for traveling long distances by car. The revised proposal will also make it easier for developers to complete residential, commercial, and mixed-use infill projects that improve air quality by reducing the number of miles driven by cars. More information on the SB 743 can be found at: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB743 http://www.opr.ca.gov/cega/updates/sb-743/
The California Complete Streets Act (AB 1358, Leno, Chapter 657, Statutes of 2008)	This Act impacts local general plan requirements and intends to promote GHG reductions by encouraging the most efficient use of urban land and transportation infrastructure, promoting physical activity, reducing vehicle miles traveled (VMT), and shifting from short trips in the automobile to biking, walking and use of public transit. More information on the Assembly Bill (AB) 1358 can be found at: ftp://www.leginfo.ca.gov/pub/07-08/bill/asm/ab_1351-1400/ab_1358_bill_20080930_chaptered.pdf https://www.opr.ca.gov/docs/Update_GP_Guidelines_Complete_Streets.pdf
Clean Energy and Pollution Reduction Act (SB 350, de León, Chapter 547, Statutes of 2015)	This Act emphasizes widespread transportation electrification as a means of achieving the 2030 GHG emissions reductions target. This includes a requirement to increase access to the use of electricity as a transportation fuel for all mobile sources. SB 350 requires large electric utilities to consider transportation electrification in their integrated resource planning and adopt an integrated resource plan (IRP) and a process for updating it at least every five years by January 1, 2019. More information on the SB 350 can be found at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB350 https://www.arb.ca.gov/msprog/bus/presentations/1cpuc.pdf http://www.energy.ca.gov/altfuels/2016-TRAN-01/ http://www.energy.ca.gov/sb350/

Statute / Regulation / Program / Policy	Table H3-2. Vehicle Technology and Fuel Description
Clean Car Standards (AB 1493, Pavley, Chapter 200, Statutes of 2002)	The 2004 CARB regulations, and 2009 amendments, resulting from this Act formed the foundation for the federal GHG and fuel-economy programs for light-duty vehicles for the 2012–2016 model years. The Pavley regulations were expected to reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs. More information on the Pavley Standards can be found at:

Statute / Regulation / Program / Policy	Table H3-2. Vehicle Technology and Fuel Description
	http://www.leginfo.ca.gov/pub/01-02/bill/asm/ab_1451-1500/ab_1493_bill_20020722_chaptered.pdf https://www.arb.ca.gov/cc/ccms/ccms.htm
Phase I Heavy-Duty GHG Standards	The CARB regulation for GHG emissions from heavy-duty trucks and engines sold in California established GHG emission limits on truck and engine manufacturers and harmonized with the adopted U.S. EPA rules for new trucks and engines nationally. Existing heavy-duty vehicle regulations in California include engine criteria emission standards, tractor-trailer GHG requirements to implement SmartWay strategies (i.e., the Heavy-Duty Tractor-Trailer Greenhouse Gas Regulation), and in-use fleet retrofit requirements such as the Truck and Bus Regulation. More information on the Phase I heavy-duty GHG standards can be found at: https://www.arb.ca.gov/msprog/onroad/phaselghg/phaselghg.htm
Phase 2 Heavy-Duty GHG Standards	CARB staff worked jointly with the U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) on the next phase of federal GHG emission standards for medium- and heavy-duty vehicles, called federal Phase 2. The federal Phase 2 standards were built on the improvements in engine and vehicle efficiency required by the Phase 1 emission standards and represent a significant opportunity to achieve further GHG reductions for 2018 and later model year heavy-duty vehicles, including trailers. U.S. EPA and NHTSA issued a Notice of Proposed Rulemaking for Phase 2 in June 2015, and published the final rule in October 2016. CARB staff plans to bring a proposed California Phase 2 program before the Board in early 2018. CARB staff remains committed to a strong national program which will support California's GHG reduction commitments. More information on the Phase 2 GHG standards can be found at: https://www.arb.ca.gov/msprog/onroad/caphase2ghg/caphase2ghg.htm
Executive Order B-16-2012	This Executive Order established targets to build infrastructure to support 1 million zero-emission vehicles (ZEVs) by 2020 and to deploy 1.5 million ZEVs on California's roadways by 2025. It also directed State agencies to replace at least ten percent of fleet vehicle purchases with ZEVs by 2015, and at least 25 percent of fleet vehicle purchases with ZEVs by 2020. More information can be found at: https://www.gov.ca.gov/news.php?id=17472 https://www.documents.dgs.ca.gov/ofa/fars/eo-b-16-12impplan.pdf
Advanced Clean Cars (ACC) Program	In January 2012, CARB adopted the Advanced Clean Cars (ACC) program, which closely aligns the Low-Emission Vehicle (LEV) criteria emission program, the Pavley GHG vehicle program, and the ZEV program to lay the foundation for the next generation of ultra-clean vehicles with increasing stringency through the 2025 model year. The ACC program includes tighter criteria pollutant standards for all light- and medium-duty vehicles starting with the 2015 model year, more stringent GHG emission standards for passenger vehicles starting with the 2017 model year, and increased ZEV production requirements, starting in 2018. ACC is a set of CARB regulations that will reduction GHG emissions from new light-duty vehicles by approximately 4.5 percent per year from 2017-2025. More information on the CARB's Advanced Clean Cars program can be found at: https://www.arb.ca.gov/msprog/acc/acc.htm

Statute / Regulation / Program / Policy	Table H3-2. Vehicle Technology and Fuel Description
Zero Emission Vehicle (ZEV) Program; SB 1275 (De León, Chapter 530, Statutes of 2014); SB 1204 (Lara, Chapter 524, Statutes of 2014)	The ZEV Program is designed to achieve the State's long-term emission reduction goals by requiring manufacturers to offer for sale specific numbers of the very cleanest cars available as quickly as possible. In 2009, CARB staff undertook an analysis of pathways to meet California's long term 2050 GHG reduction goals in the light-duty vehicle subsector, which showed ZEVs would need to reach nearly 100 percent of new vehicle sales between 2040 and 2050. In 2014, SB 1275 codified the Charge Ahead Initiative, which provides consumer incentives and rebates to support the goal of 1 million ZEVs on California roads by 2023. The same year, SB 1204 established the Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program to incentivize commercial purchase of heavy-duty ZEVs and near-ZEVs. More information on the ZEV Program can be found at: https://www.arb.ca.gov/msprog/zevprog/zevprog.htm
Low Carbon Transportation Investments and Air Quality Improvement Program (AQIP)	AQIP is a mobile source incentive program that focuses on reducing criteria pollutant and diesel particulate emissions with concurrent reductions in GHG emissions. AQIP has an annual budget of about $25 million and has provided funding for the Clean Vehicle Rebate Project (CVRP), the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP), and demonstrations for advanced emission reduction vehicle technologies since 2009. In recent years, these projects have been primarily funded from the Low Carbon Transportation appropriations because demand has exceeded AQIP's budget, and the majority of AQIP funds have been directed to the Truck Loan Assistance Program which helps small business truckers to secure financing for newer trucks and diesel exhaust retrofits to meet compliance deadlines for CARB's in-use truck and bus regulation. More information on the Low Carbon Transportation and Fuels Investments and AQIP https://www.arb.ca.gov/msprog/aqip/aqip.htm
Electric Program Investment Charge (EPIC)	CPUC established funding to support pre-commercial clean energy technologies and strategies. This program, known as the Electric Program Investment Charge (EPIC), is designed to provide funding for research and development, technology demonstration and deployment, and market facilitation. CPUC identified CEC and the State's three largest investor-owned utilities (IOUs) to administer EPIC. More information on EPIC can be found at: http://www.energy.ca.gov/research/epic/
Technology Program (AB 118, Chapter 750, 2007) (AB 109, Núñez,	This Act authorizes CEC to develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the state's climate change policies. CEC has an annual program budget of approximately $100 million to support projects • Develop and improve alternative and renewable low-carbon fuels. • Optimize alternative and renewable fuels for existing and developing engine technologies. • Decrease, on a full fuel cycle basis, the overall impact and carbon footprint of alternative and renewable fuels and increase sustainability. • Expand fuel infrastructure, fueling stations, and equipment. • Improve light-, medium-, and heavy-duty vehicle technologies. • Retrofit medium- and heavy-duty on-road vehicle fleets.

Statute / Regulation / Program / Policy	Table H3-2. Vehicle Technology and Fuel Description
Chapter 313, Statutes of 2008) (AB 8, Perea, Chapter 401, Statutes of 2013)	• Expand infrastructure connected with existing fleets, public transit, and transportation corridors. • Establish workforce training programs, conduct public education and promotion, and create technology centers. More information on the Alternative and Renewable Fuel and Vehicle Technology Program can be found at: http://www.energy.ca.gov/altfuels/
2016 Mobile Source Strategy	The Mobile Source Strategy identifies actions to be undertaken to simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease toxics health risk, and reduce petroleum consumption from transportation emissions by 2031. More information on the Mobile Source Strategy can be found at: https://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc.htm
The California Sustainable Freight Action Plan	The California Sustainable Freight Action Plan (Action Plan) is a multi-State agency effort to improve freight system efficiency by 25 percent by 2030, and to deploy over 100,000 freight vehicles and equipment capable of zero emission operation, and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030. The Action Plan Includes recommendations on: • A long-term 2050 Vision and Guiding Principles for California's future freight transport system. • Targets for 2030 to guide the State toward meeting the Vision. • Opportunities to leverage State freight transport system investments. • Actions to initiate over the next five years to make progress towards the Targets and the Vision. • Pilot projects to achieve on-the-ground progress in the near-term. • Additional concepts for further exploration and development, if viable. More information on can be found at: http://www.dot.ca.gov/casustainablefreight/
Low Carbon Fuel Standard	The Low Carbon Fuel Standard (LCFS) requires producers of petroleum-based fuels to reduce the carbon intensity of their products, beginning with a quarter of a percent in 2011 culminating in a 10 percent total reduction in 2020. Petroleum importers, refiners and wholesalers can either develop their own low carbon fuel products, or buy LCFS Credits from other companies that develop and sell low carbon alternative fuels, such as biofuels, electricity, natural gas or hydrogen. More information on can be found at: https://www.arb.ca.gov/fuels/lcfs/lcfs.htm

Statute / Regulation / Program / Policy	Table H3-3. Sustainable Freight Description
California State Rail Plan	This is a long-term plan for freight and passenger rail. It includes a vision and plan for integrating passenger rail networks, including high-speed, intercity and regional. The 2013 California State Rail Plan (CSRP) establishes a statewide vision and objectives, sets priorities, and develops policies and implementation strategies to enhance passenger and freight rail service in the public interest. The CSRP details a long-range investment program for California's passenger and freight infrastructure. It supports the State's goal to develop an integrated, multimodal transportation network. Finally, the CSRP will guide federal and state rail investments that will improve the movement of people and goods while enhancing economic growth and quality of life. More information on the 2013 California State Rail Plan can be found at: http://www.dot.ca.gov/hq/rail/StateRailPlan.htm
California Freight Mobility Plan	The purpose of this plan is to identify freight routes and transportation facilities that are critical to California's economy, with the intent to strengthen the freight system through strategic investment decisions and maintaining of a sustainable freight system. More information on the California Freight Mobility Plan can be found at: http://www.dot.ca.gov/hq/tpp/offices/ogm/california_freight_mobility_plan.html
California Transportation Plan 2040	The California Transportation Plan (CTP 2040) is a statewide long-range policy plan that presents a vision for California's future transportation system. CTP 2040 defines goals, policies, and strategies to achieve a vision and recommended performance measures for assessing their effectiveness. It provides a strong, common framework to help guide transportation decisions and investments that support a statewide, sustainable and integrated multimodal transportation system. CTP 2040 takes a comprehensive approach to provide for the State's future mobility needs in a manner that is economically, equitably, and environmentally responsible, and supports the overall vision of a low carbon and sustainable transportation system that enhances the quality of life. CTP 2040 addresses the existing status and expected needs of the State's transportation system to optimize the movement of people, goods, services, and information to meet the States' future multimodal mobility needs for the people who live, work, and visit California. More information on the California Transportation Plan 2040 can be found at: http://www.dot.ca.gov/hq/tpp/californiatransportationplan2040/
2015 Sustainable Freight Pathways to Zero and Near-Zero Discussion Document	This document describes actions that identify, prioritize, and recommend specific measures and actions to meet the state's air quality attainment and climate needs. In 2012, the CARB directed staff to identify and implement actions to quickly reduce health risk from diesel particulate matter. The Sustainable Freight Pathways to Zero and Near-Zero Discussion Document (Discussion Document) describes actions that respond to the Board's direction to Identify, prioritize, and recommend specific measures and actions to meet the State's air quality attainment and climate needs. More information on the 2015 Sustainable Freight Pathways to Zero and Near-Zero Discussion Document can be found at: https://www.arb.ca.gov/gmp/sfti/sfti.htm

Appendix H4
Natural and Working Lands / Agricultural Lands Sector

Statute / Regulation / Program / Policy	Table H4-1. Natural and Working / Agricultural Lands Description
Natural and Working Lands	
Forest Climate Action Team / Forest Carbon Plan	The Forest Climate Action Team (FCAT) was assembled in August 2014 with the primary purpose of developing a Forest Carbon Plan by the end of 2016 to promote healthy wildland and urban forests that protect and enhance forest carbon and the broader range of ecosystem services for all forests in the State. FCAT is comprised of Executive level members from many of the State's natural resources agencies, State and federal forest land managers, and other key partners directly or indirectly involved in California forestry. FCAT is under the leadership of the California Department of Forestry and Fire Protection (CAL FIRE), California Environmental Protection Agency (Cal/EPA), and the California Natural Resources Agency (CNRA). FCAT has released the Draft of the California Forest Carbon Plan (January 20, 2017) for public review. Comments were due by March 17, 2017. The plan is being targeted for finalization by early 2018. For more information: www.fire.ca.gov/fcat www.fire.ca.gov/fcat/downloads/California%20Forest%20Carbon%20Plan%20Draft%20for%20Public%20Review_Jan17.pdf
Resource Conservation: Working and Natural Lands (SB 1386, Wolk, Chapter 545, Statutes of 2016)	Adds Public Resources Code Section 9001.5 to declare it to be the policy of the State that protection and management of natural and working lands is an important strategy in meeting GHG reduction goals due to removal and sequestration of carbon. It requires all relevant state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands. Defines "working lands" to mean lands used for farming, grazing, or forest production purposes. Defines "natural lands" to means lands consisting of wetlands, watersheds, wildlands, wildlife habitat, or used for recreational purposes. For more information: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB1386
Greenhouse Gas Emissions and Biomass (SB 859, Committee on Budget and Fiscal Review, Chapter 368, Statutes of 2016)	Among other things, this bill establishes new procurement requirements for bioenergy generated with forest-source biomass from tree mortality high hazard zones in California. It also calls for CARB, in consultation with CNRA and CAL FIRE to complete a standardized GHG emission inventory for natural and working lands, including forests. The legislation further directs CNRA to establish a working group on expanding wood products markets that can use woody biomass, especially that from high hazard zones determined by the Tree Mortality Task Force. The SB 859 Wood Products Working Group completed their report, *Recommendations to Expand Wood Products Markets in California: Investing in communities and California's climate resilient future*, in October 2017 and submitted it to the Legislature.

Statute / Regulation / Program / Policy	Table H4-1. Natural and Working / Agricultural Lands Description
	For more information: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB859 http://resources.ca.gov/wp-content/uploads/2014/07/Wood-Products-Recommendations.pdf
Source Watersheds: Financing (AB 2480, Bloom, Chapter 695, Statutes of 2016)	This statute identifies watersheds as part of California's water infrastructure. While no implementation conditions are included, it is possible that this bill could result in increased investment in the State's headwaters in the future. For more information: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB2480
Governor's Action on Tree Mortality (2015 Emergency Declaration, Tree Mortality Task Force)	On October 30, 2015, Governor Brown issued a Proclamation of a State of Emergency due to an unprecedented scale of forest tree mortality caused by severe drought conditions and bark beetle infestation – increasing wildfire and safety risks; increasing threats of erosion; damaging wildlife habitat; and releasing GHG emissions. The emergency declaration includes 19 directives, a few of which are listed here: • CAL FIRE, CNRA, California Department of Transportation (CalTrans), and CEC shall identify areas of the State that represent high hazard zones for wildfire and falling trees. • State agencies, utilities, and local governments shall undertake efforts to remove dead or dying trees in high hazard zones per guidelines issued by CAL FIRE. • CAL FIRE shall identify storage locations for removed trees across impacted areas. • CalTrans shall request assistance through the Federal Highway Administration's Emergency Relief Program for assistance for removal of dead and dying trees adjacent to highways. • Department of General Services (DGS) shall identify State facilities, and CalTrans shall identify highway and road corridors, where woodchips from dead trees can be used as mulch. • Governor's Office of Emergency Services (OES) and CAL FIRE shall work with impacted counties to distribute portable equipment in high hazard zones so communities can remove and process wood waste locally. • CARB and CAL FIRE shall work with federal land managers and U.S. EPA to expand prescribed burns and temporarily increase the number of days to burn tree waste removed from high hazard areas. • CPUC shall use its authority to extend contracts on existing forest bioenergy facilities receiving feedstock from high hazard zones. • CPUC shall take action to ensure contracts for new forest bioenergy facilities that receive feedstock form high hazard zones can be executed within six months, including initiation of a renewable auction mechanisms and consideration of adjustments to the BioMAT Program. • CEC shall prioritize Electric Program Investment Charge grants for woody biomass-to-energy technology development and deployment. • CalRecycle and CAL FIRE shall work with affected counties and existing wood product markets to determine feasibility for expanded wood products markets in California.

Statute / Regulation / Program / Policy	Table H4-1. Natural and Working / Agricultural Lands Description
	A Tree Mortality Task Force, comprised of State and federal agencies, local governments, utilities, and various stakeholders, was created to coordinate efforts associated with implementation of the directives contained in the Emergency Proclamation, and monitor ongoing conditions to address tree mortality. More information on the Tree Mortality Task Force can be found at: www.fire.ca.gov/treetaskforce www.gov.ca.gov/docs/10.30.15_Tree_Mortality_State_of_Emergency.pdf https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB859
Forest Practices: Resource Conservation Standards (AB 417, Dahle, Chapter 182, Statutes of 2015)	This bill provides the Board of Forestry and Fire Protection with additional flexibility in setting post timber harvest tree stocking standards in order to, in part, contribute to specific forest health and ecological goals as defined by the Board. For more information: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB417
Forest Practices: Working Forest Management Plans (AB 904, Chesbro, Chapter 648, Statutes of 2013)	This bill created a new forest designation, the Working Forest Management Plan (WFMP) – expanding on the Nonindustrial Timber Management Plan (NTMP), which allows small forest landowners to harvest timberlands without preparing Timber Harvest Plans. The NTMP requires that the landowner have ≤2,500 acres of timberland. AB 904 expanded the NTMP by allowing forest landowners who own up to 15,000 acres of timberland to file for a WFMP. Similar to the NTMP, a landowner under the WFMP must practice unevenaged management and sustained yield. It also mandates a periodic 5-year agency review to look for compliance issues, and mandates erosion control plans. For more information: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB904
Forest Resource Management (AB 1492, Committee on Budget, Chapter 289, Statutes of 2012)	This bill established the Timber Regulation and Forest Restoration Fund to finance timber harvest regulatory programs at State agencies and a grants program for forest restoration. These funds are generated by a 1 percent assessment on lumber and wood products sold at the retail level in California. Forest restoration grant programs using these funds are currently being administered by CAL FIRE, the Department of Fish and Wildlife, and the State Water Resources Control Board (SWRCB). For more information: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120AB1492
Bioenergy Market Adjusting Tariff (BioMAT)	SB 1122 (Rubio, Chapter 612, Statutes of 2012) created a bioenegy incubation program requiring the State's three large IOUs (PG&E, SCE, SDG&E) to procure a share of the required 250 MW of renewable capacity from small-scale bioenergy projects that commence operation on or after June 1, 2013, in three feedstock categories: (1) biogas from wastewater treatment, municipal organic waste diversion, food processing and codigestion; (2) dairy and other agriculture; and (3) byproducts of sustainable forest management.

Statute / Regulation / Program / Policy	Table H4-1. Natural and Working / Agricultural Lands Description
	The bill was implemented via two CPUC Decisions, D.14-12-081 and D.15-09-004. D.14-12-081 (December 26, 2014) allocated the program capacity to each IOU based on its share of statewide peak demand. D.15-09-004 (September 22, 2015) modified the IOUs' tariff and contract implementing the BioMAT program. For more information: www.pge.com/en_US/for-our-business-partners/floating-pages/biomat/biomat.page https://scebiomat.accionpower.com/BioMAT/home.asp www.sdge.com/procurement/bioenergy-market-adjusting-tariff-bio-mat
Forest Resources: Carbon Sequestration (AB 1504, Skinner, Chapter 534, Statutes of 2010)	Requires CAL FIRE to ensure that its rules and regulations that govern timber harvesting consider the capacity of forest resources to sequester CO_2 emissions sufficient to meet or exceed the State's GHG reduction requirements for the forestry sector, consistent with the AB 32 Climate Change Scoping Plan goal of 5 $MMTCO_2e$ sequestered per year. For more information: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200920100AB1504
California Fire Plan	The California Fire Plan is the State's road map for reducing wildfire risk. The Fire Plan is a cooperative effort between the State Board of Forestry and Fire Protection and CAL FIRE. The current plan was updated in April 2016. For more information: http://cdfdata.fire.ca.gov/fire_er/fpp_planning_cafireplan
California Forest Legacy Act of 2000 and 2007 (SB 1832, Chesbro)	This program allows CAL FIRE to acquire conservation easements, and permit federal, State agencies, local governments and nonprofit land trust organizations to hold conservation easements acquired pursuant to the California Forest Legacy Program (FLP), a voluntary program to protect environmentally important forestland threatened with conversion to non-forest uses. For more information: http://calfire.ca.gov/resource_mgt/resource_mgt_forestryassistance_legacy
California Urban Forestry Act of 1978	The Act expands and improves the management of trees and related vegetation in communities throughout California. It includes tree planting and establishment, enhanced urban forest conservation and management, multi-benefit green infrastructure, and urban wood and biomass utilization. For more information: www.fire.ca.gov/resource_mgt/downloads/UrbanForestry_ACT_2010.pdf

Statute / Regulation / Program / Policy	Table H4-1. Natural and Working / Agricultural Lands Description
California Forest Improvement Program / California Forest Improvement Act of 1978	California Forest Improvement Act of 1978 added a new part to the Public Resources Code to provide technical and financial assistance for practices that will improve the long-term quality of forested lands. It established the California Forest Improvement Program (CFIP) program to encourage private and public investment in, and improved management of, forest lands. For more information: http://calfire.ca.gov/resource_mgt/resource_mgt_forestryassistance_cfip
Z'berg-Nejedly Forest Practice Act of 1973	This Act establishes the regulatory framework around which all non-federal forest lands in California must be managed to help ensure that logging is done in a manner that will preserve and protect California's fish, wildlife, forests, and streams. The Act establishes Forest Practice Rules (FPRs), promulgated by the Board of Forestry and Fire Protection. The FPRs require a Timber Harvesting Plan, which is a CEQA-equivalent document, to be completed by the landowner and approved by CAL FIRE.
Agriculture	
Short-Lived Climate Pollutant Reduction Strategy (SB 1383, Lara, Chapter 395, Statutes of 2016) (SB 605, Lara, Chapter 523, Statutes of 2014)	The May 2014 First Update to the Climate Change Scoping Plan identified the need for a short-lived climate pollutant reduction strategy (SLCP Strategy) to minimize the impact of these short-term, yet powerful, climate forcers. SB 605 requires CARB to develop a plan to reduce emissions of SLCPs and SB 1383 requires CARB to approve and begin implementing the plan by January 1, 2018. SB 1383 also sets targets for statewide reductions of SLCPs from 2013 levels by 2030– specifically, a 40 percent reduction of methane and hydrofluorocarbons, and a 50 percent reduction of anthropogenic black carbon. With respect to methane from the dairy and livestock sector, SB 1383 requires CARB, in partnership with the California Department of Food and Agriculture (CDFA), to develop a regulation to reduce manure methane emissions for implementation on or after January 1, 2024. It also requires that emission reductions from enteric fermentation be provided through voluntary, incentive-based efforts until proven measures are available that do not compromise the health of animals or consumers, or affect consumer acceptance of dairy products. Before adopting a regulation, a number of considerations called out in the bill must be addressed in a report, including the impact that a regulation may have on emissions leakage. As an interim step, CARB and CDFA must complete a report by July 1, 2020, on the progress the dairy and livestock sector has made to meet the methane reduction goals. The strategy was approved by CARB on March 23, 2017. In May 2017, CARB, CDFA, CEC, and CPUC convened a Dairy and Livestock Working Group to address existing hurdles to developing biomethane projects from manure management to reduce methane emissions. For more information: www.arb.ca.gov/cc/shortlived/shortlived.htm https://www.arb.ca.gov/cc/dairy/dairy.htm
Dairy Digester Research and Development Program	CDFA's Dairy Digester Research and Development Program (DDRDP) provides financial assistance for the installation of dairy digesters in California to reduce GHG emissions. CDFA received $50 million from the Greenhouse Gas Reduction Fund in 2016 for methane emissions reductions from dairy and livestock operations. CDFA will allocate $29-36 million from the total $50 million

Statute / Regulation / Program / Policy	Table H4-1. Natural and Working / Agricultural Lands Description
	appropriation as incentives to support digester projects on California dairy operations. The remainder of the funding appropriation will incentivize development of non-digester practices to reduce methane emissions through the Alternative Manure Management Program. DDRDP is guided by the Statement of Principles of the California-Federal Dairy Digester Working Group. The Working Group is a partnership of state, federal and local agencies with the common goal of identifying and removing barriers to the wide adoption of dairy digester systems in California. For more information: www.cdfa.ca.gov/oefi/ddrdp/
Alternative Manure Management Program	Management practices exist for reducing methane emissions from animal manure through non-digester methodologies. CDFA received $50 million from the Greenhouse Gas Reduction Fund in 2016 for methane emissions reductions from dairy and livestock operations. The Alternative Manure Management Program (AMMP) is being developed and implemented by CDFA to support non-digester dairy methane reduction practices. CDFA will allocate $9-16 million from the total $50 million appropriation as incentives to support project development to support the AMMP objective. The remainder of the funding appropriation will incentivize development of dairy digesters through the DDRDP. The AMMP application period closed on October 16, 2017. Fifty-three applications were received for a total funding request of approximately $29.5 million. The review process is underway, and CDFA expects to announce and award funding in January 2018. For more information: www.cdfa.ca.gov/oefi/ammp/
California's Healthy Soils Initiative	The Healthy Soils Initiative is a collaboration of State agencies led by the CDFA, to promote the development of healthy soils on California's farm and ranchlands. The Initiative is a key part of the State strategy to reduce GHGs by increasing carbon sequestration in and on natural and working lands. Actions include: • Working with stakeholders to establish short- and long-term goals for building soil organic matter in agricultural and degraded soils. • Developing and funding incentive and demonstration programs with new and existing resources to promote GHG reductions, sequester carbon, increase water-holding capacity, and increase crop yields, through on-farm management practices. • Securing resources to work with academic institutions to develop a user-friendly soil management database to host research findings and practical applications. • Securing funding sources to support a robust scientific research program to support and enhance healthy soils. • Increasing generation and use of compost to improve soil health, by permitting 100 new composting and anaerobic digestion facilities in California by 2020. • Coordinating agency activities and working across the Cabinet to facilitate broader discussions on soil health and climate change.

Statute / Regulation / Program / Policy	Table H4-1. Natural and Working / Agricultural Lands Description
	More information on the Healthy Soils Initiative can be found at: www.cdfa.ca.gov/oefi/healthysoils/ www.cdfa.ca.gov/oefi/healthysoils/docs/CA-HealthySoilsActionPlan.pdf
California Farmland Conservancy Program	The California Farmland Conservancy Program (CFCP) seeks to encourage the long-term, private stewardship of agricultural lands through the voluntary use of agricultural conservation easements. The CFCP provides grant funding for easement and planning projects that support agricultural land conservation statewide. As of January 2015, CFCP funded more than 175 conservation easements. For more information: www.conservation.ca.gov/dlrp/cfcp
Sustainable Agricultural Land Conservation Program	The Sustainable Agricultural Lands Conservation Program (SALC Program) is a component of the Strategic Growth Council's Affordable Housing and Sustainability Program (AHSC). The SALC Program complements investments made in urban areas with the purchase of agricultural conservation easements, development of agricultural land strategy plans, and other mechanisms that result in GHG reductions and a more resilient agricultural sector. The California Department of Conservation works in cooperation with CNRA and the California Strategic Growth Council to implement the SALC Program. The program receives funding from California's Climate Investments Fund. For more information: www.conservation.ca.gov/dlrp/SALCP
California Land Conservation Act of 1965 (Williamson Act)	The Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based on farming and open space uses as opposed to full market value. For more information: www.conservation.ca.gov/dlrp/lca
2014 Sustainable Groundwater Management Act (AB 1739, SB 1318, SB 1168)	The Sustainable Groundwater Management Act (SGMA) provides for sustainable management of groundwater basins; enhances local management of groundwater consistent with rights to use or store groundwater; establishes minimum standards for effective, continuous management of groundwater; provides local groundwater agencies with authority, technical, and financial assistance to maintain groundwater supplies; avoids or minimizes impacts of land subsidence; improves data collection and understanding of groundwater resources and management; increases groundwater storage and removes impediments to recharge; empowers local agencies to manage groundwater basins while minimizing state intervention. The California Department of Water Resources (DWR) has developed a Strategic Plan to implement its responsibilities under SGMA. Some of these responsibilities include: (1) developing regulations to revise groundwater basin boundaries; (2) adopting regulations for evaluating and implementing Groundwater Sustainability Plans and coordination agreements; (3) identifying basins subject to critical conditions of overdraft; (4) identifying water available for groundwater replenishment; and (5) publishing best management practices for sustainable management of groundwater.

Statute / Regulation / Program / Policy	Table H4-1. Natural and Working / Agricultural Lands Description
	For more information: www.water.ca.gov/groundwater/sgm/
State Water Efficiency and Enhancement Program (SWEEP)	This program is administered by CDFA and provides financial assistance in the form of grants to implement on-farm irrigation systems that reduce GHGs and save water. On October 10, 2017, CDFA announced fifty-eight projects were selected to receive 2017 SWEEP funding. For more information: www.cdfa.ca.gov/oefi/sweep/
Water-Energy Grant Program	Program provides funds to implement water efficiency programs or projects that reduce GHG emissions, and reduce water and energy use. Funding is appropriated from the Greenhouse Gas Reduction Fund to DWR to establish a grant program. Eligible applicants are local agencies, joint powers authorities, and non-profit organizations. Eligible projects include residential water efficiency, commercial water efficiency, institutional water efficiency programs, or projects that reduce GHGs, reduce water and reduce energy use. The 2016 solicitation focused on these eligible programs/projects: • Commercial water efficiency or institutional water efficiency programs. • Residential water efficiency programs that benefit disadvantaged communities. • Projects that reduce GHG, reduce water, and reduce energy use. • Only projects with water conservation measures that also save energy. On March 23, 2017, DWR released Final Awards for the 2016 Water-Energy Grant Program. For more information: www.water.ca.gov/waterenergygrant/
National Conservation Practice Standards and Funding Programs	The Natural Resources Conservation Service (NRCS) is the U.S. Department of Agriculture's principal agency for providing conservation technical assistance to private landowners, conservation districts, tribes, and other organizations. The primary purposes of NRCS' Conservation Technical Assistance (CTA) Program are to: • Reduce soil loss from erosion • Solve soil, water quality, water conservation, air quality, and agricultural waste management problems • Reduce potential damage caused by excess water and sedimentation or drought • Enhance the quality of fish and wildlife habitat • Improve the long-term sustainability of lands, including cropland, forestland, grazing lands, coastal lands, and developed/developing lands • Assist other in facilitating changes in land use as needed for natural resource protection and sustainability The CTA Program works through a voluntary conservation network that fosters partnership between NRCS, conservation districts, state conservation agencies, and private landowners. Most technical assistance leads to the voluntary development of a conservation plan; a successful plan helps clients achieve their objectives while, at the same time, meet his or her responsibility to care for the land. Some NCRS resources are described below.

Statute / Regulation / Program / Policy	Table H4-1. Natural and Working / Agricultural Lands Description
	National conservation practices standards Technical guides are the primary scientific references for NRCS. They contain technical information about the conservation of soil, water, air, and related plant and animal resources. Environmental Quality Incentives Program (EQIP) EQIP is a voluntary program that provides financial and technical assistance to agricultural producers to plan and implement conservation practices that improve soil, water, plant, animal, air and related natural resources on agricultural land and non-industrial private forestland. EQIP may also help producers meet federal, state, tribal, and local environmental regulations. For more information: www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/ www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/technical/cta/ www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/technical/cp/ncps/?cid=nrcs143_026849 www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/

This Page Intentionally Left Blank

Appendix H5
Waste Management Sector

Statute / Regulation / Program / Policy	Table H5-1. Waste Management Sector Description
Short-Lived Climate Pollutant Reduction Strategy (SB 1383, Lara, Chapter 395, Statutes of 2016) (SB 605, Lara, Chapter 523, Statutes of 2014)	The May 2014 First Update to the Climate Change Scoping Plan identified the need for a short-lived climate pollutant reduction strategy (SLCP Strategy) to minimize the impact of these short-term, yet powerful, climate forcers. SB 605 requires CARB to develop a plan to reduce emissions of SLCPs and SB 1383 requires CARB to approve and begin implementing the plan by January 1, 2018. SB 1383 also sets targets for statewide reductions of SLCPs from 2013 levels by 2030– specifically, a 40 percent reduction of methane and hydrofluorocarbons, and a 50 percent reduction of anthropogenic black carbon. With respect to waste and landfills, SB 1383 requires CalRecycle to adopt regulations to achieve statewide disposal targets to reduce landfilling of organic waste by: (1) 50 percent from the 2014 level by 2020, and (2) 75 percent from the 2014 level by 2025. The regulations shall also include requirements intended to meet the goal that at least 20 percent of edible food that is currently disposed of is recovered for human consumption by 2025. The regulations shall take effect on or after January 1, 2022. By July 1, 2020, CalRecycle is to analyze the progress that the waste sector, State government, and local governments have made in achieving these goals. In addition, the CEC is to develop recommendations for the development and use of renewable gas as part of the 2017 Integrated Energy Policy Report (IEPR), and based on these recommendations, adopt policies and incentives to increase sustainable production and use of renewable gas. There are additional provisions pertaining to livestock and dairy operations. The strategy was approved by the ARB on March 23, 2017. Since February 2017, CalRecycle has been holding informal stakeholder workshops for feedback on the development of regulations related to SB 1383 implementation. On October 16, 2017, CEC released the 2017 Draft IEPR. Chapter 9 of the report addresses renewable gas as required by SB 1383. The CEC is scheduled to consider adopting the final 2017 IEPR in February 2018. For more information: www.arb.ca.gov/cc/shortlived/shortlived.htm http://www.calrecycle.ca.gov/Climate/SLCP/ http://www.energy.ca.gov/2017_energypolicy/index.html
Direct Reporting Requirements (AB 901, Gordon, Chapter 746, Statutes of 2015)	The statute provides CalRecycle with enforcement authority for existing disposal reporting requirements and updates reporting requirements for recycling, composting, and solid waste disposal facilities. This will help CalRecycle accurately measure progress toward the 75 percent goal. For more information: www.calrecycle.ca.gov/Laws/Rulemaking/Reporting/default.htm
Organic Waste Composting Promotion (AB 1045, 2015)	The statute requires the California Environmental Protection Agency (Cal/EPA) in coordination with CalRecycle, State Water Resources Control Board (SWRCB), CARB, and CDFA to develop and implement policies that divert organic waste from landfills by promoting composting and appropriate uses of that compost.

Statute / Regulation / Program / Policy	Table H5-1. Waste Management Sector Description
	For more information: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160AB1045
Compostable Organics (AB 876, McCarty, Chapter 593, Statutes of 2015)	The bill is intended to address longer-term planning for organics infrastructure. The statute requires local counties and regional agencies to include in annual reports to CalRecycle: estimated amount of organic waste over a 15-year period, estimated additional infrastructure required, and locations for new/expanded infrastructure. For more information: www.calrecycle.ca.gov/LGCentral/AnnualReport/OrganicInfra.htm
Alternative Energy: Recycled Feedstock Tax Break (AB 199, 2015)	The statute provides tax exemptions for businesses purchasing recycling and composting equipment. It also expands eligibility for this tax exclusion to equipment that uses recycled feedstock to make new products. For more information: http://treasurer.ca.gov/caeatfa/ste/ab199.asp
Mandatory Commercial Organics Recycling (AB 1826, Chesboro, Chapter 727, Statutes of 2014)	Beginning April 2016, businesses that generate at least 8 cubic yards of organic waste (food scraps, yard clippings) per week must arrange for the recycling of that waste. The law phases in the requirements on more businesses, including multi-family residential dwellings that consist of five or more units, over time, with full implementation realized in 2019. A 2020 trigger will increase the scope of affected businesses if waste reduction targets are not met. The implementation schedule is: • January 1, 2016: local jurisdictions have an organic waste recycling program in place. Jurisdictions shall do outreach and education to inform businesses how to recycle and monitor compliance. • April 1, 2016: Businesses that generate 8 cubic yards of organic waste per week shall arrange for recycling services. • January 1, 2017: Businesses that generate 4 cubic yards of organic waste per week shall arrange for recycling services. • August 1, 2017 and ongoing: Jurisdictions shall provide information on program implementation in an annual report to CalRecycle. • Fall 2018: CalRecycle to review 2016 annual reports for jurisdictions on a two-year review cycle. • January 1, 2019: Businesses that generate at least 4 cubic yards commercial solid waste per week shall arrange for recycling services. • Fall 2020: CalRecycle to review 2019 annual reports for all jurisdictions. • Summer/Fall 2021: If CalRecycle determines organic waste disposal in 2020 has not been reduced by 50 percent, then the requirements shall expand to cover businesses that generate at least 2 cubic yards commercial solid waste per week. For more information: www.calrecycle.ca.gov/recycle/commercial/Organics/default.htm
Waste Management (AB 1594, Williams, Chapter 719, Statutes of 2014)	Starting January 1, 2020, the use of green material as alternative daily cover (ADC) will no longer constitute diversion through recycling and will instead be considered disposal in term of meeting a jurisdiction's annual 50 percent per capita disposal rate (Public Resource Code Section 41781.3). For more information: www.calrecycle.ca.gov/lgcentral/basics/ADCGreen/default.htm
75 Percent Statewide	In 2011, the Legislature implemented a new approach to solid waste management. Assembly Bill (AB) 341 establishes a statewide goal of 75 percent recycling through

Statute / Regulation / Program / Policy	Table H5-1. Waste Management Sector Description
Recycling Goal by 2020 (AB 341, Chesboro, Chapter 476, Statutes of 2011)	source reduction, recycling, and composting by 2020, and requires that CalRecycle adopt a mandatory commercial recycling regulation to help meet the goal. The Mandatory Commercial Recycling Regulation, effective July 1, 2012, requires commercial enterprises and public entities that generate at least four cubic yards of waste per week, and multi-family housing complexes with five or more units, to adopt recycling practices. AB 341 differs from AB 939 in some significant ways. First, AB 341 establishes a statewide policy goal rather than a jurisdictional mandate, which places the responsibility for achieving the goal on the State rather than the cities and counties. Second, different metrics are used to calculate the statewide recycling rate. In particular, several activities that count towards diversion under AB 939 do not count towards recycling under AB 341; instead, these are defined as disposal-related activities, which mean that a greater quantity of materials will need to be source reduced, recycled, or composted to meet the 75 percent goal. For more information: www.calrecycle.ca.gov/75Percent/
Mandatory Commercial Recycling Regulation (AB 341, Chesboro, Chapter 476, Statutes of 2011)	Effective July 1, 2012, regulations are designed to help meet California's recycling goal of 75 percent by 2020 and require commercial enterprises and public entities that generate four or more cubic yards per week of waste and multi-family housing complexes with five or more units, to adopt recycling practices. Local government jurisdictions need to implement a program that includes education, outreach, and monitoring. The regulations allow for phased-in implementation. Local jurisdictions are required to report on their initial education, outreach, and monitoring efforts, and, if applicable, on any enforcement activities or exemptions implemented by the jurisdiction. The regulation helps reduce GHGs by diverting commercial solid waste to recycling efforts and to expand the opportunities for additional recycling services and recycling manufacturing facilities in California. More information can be found at: www.calrecycle.ca.gov/recycle/commercial
Landfill Methane Control Measure	Regulation primarily requires owners and operators of certain uncontrolled municipal solid waste landfills to install gas collection and control systems, and requires existing and newly installed gas and control systems to operate in an optimal manner to reduce methane emissions. The regulation allows local air districts to voluntarily enter into a memorandum of understanding (MOU) with CARB to implement and enforce the regulation and to assess fees to cover costs. More information can be found at: www.arb.ca.gov/regact/2009/landfills09/landfillfinalfro.pdf www.arb.ca.gov/cc/landfills/landfills.htm www.arb.ca.gov/regact/2009/landfills09/landfills09.htm
Integrated Waste Management Act of 1989 (AB 939)	California adopted its first comprehensive solid waste management program in 1989 via AB 939, which required cities and counties to implement programs to achieve 25 percent diversion of all solid waste from disposal by January 1, 1995, and 50 percent diversion by January 1, 2000. Municipalities have almost universally met this mandate. Under AB 939, disposal includes landfilling, exported waste sent for disposal, and most transformation (at three waste-to-energy facilities), while diversion includes source reduction, recycling, composting, ADC, alternative intermediate cover (AIC), beneficial reuse at solid waste landfills, transformation diversion credit, and related activities. For more information:

Statute / Regulation / Program / Policy	Table H5-1. Waste Management Sector Description
	www.calrecycle.ca.gov/laws/legislation/calhist/1985to1989.htm
Bioenergy Market Adjusting Tariff (BioMAT)	SB 1122 (Rubio, Chapter 612, Statutes of 2012) created a bioenegy incubation program requiring the State's three large IOUs (PG&E, SCE, SDG&E) to procure a share of the required 250 MW of renewable capacity from small-scale bioenergy projects that commence operation on or after June 1, 2013, in three feedstock categories: (1) biogas from wastewater treatment, municipal organic waste diversion, food processing and codigestion; (2) dairy and other agriculture; and (3) byproducts of sustainable forest management. The bill was implemented via two CPUC Decisions, D.14-12-081 and D.15-09-004. D.14-12-081 (December 26, 2014) allocated the program capacity to each IOU based on its share of statewide peak demand. D.15-09-004 (September 22, 2015) modified the IOUs' tariff and contract implementing the BioMAT program. For more information: www.pge.com/en_US/for-our-business-partners/floating-pages/biomat/biomat.page https://scebiomat.accionpower.com/BioMAT/home.asp www.sdge.com/procurement/bioenergy-market-adjusting-tariff-bio-mat
Biomethane Pipeline Injection (AB 1900)~~e~~ Phase 1-Standards	On January 16, 2014, CPUC issued Decision (D.14-01-034) adopting health and safety standards which limit the amounts of certain constituents determined to be harmful to either human health or pipeline integrity in pipeline injected biomethane. For more information: http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M086/K466/86466318.PDF
Biomethane Pipeline Injection (AB 1900)~~e~~ Phase 2-Costs	On June 11, 2015, CPUC issued a Decision (D.15-06-029) finding that gas producers should bear all costs relating to the processing and pipeline injection of biomethane. To provide initial support to a developing market, the Decision also adopted a five-year ratepayer funded program that will: • Offset a portion of the costs to gas producers of connecting to utility pipelines. • Be capped at a total of $40 million. • Pay up to 50 percent of a project's interconnection cost, up to $1.5 million per project. For more information: http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M152/K572/152572023.PDF
Energy Research, Development, Demonstration & Deployment Projects within Electric Program Investment Charge (EPIC)	EPIC funds innovative projects in three stages; applied research and development, technology demonstration and deployment and market facilitation, that advance science and technology to improve California's electric system. Some of these projects include supporting the management and conversion of a range of organic wastes such as wood wastes from forest management, food processing wastes, agricultural wastes, including dairy wastes, and municipal sewage. For more information: www.energy.ca.gov/research/epic/index.html

Appendix H6
Water Sector

Statute / Regulation / Program / Policy	Table H6-1. Water Sector Description
Executive Order B-37-16: Making Water Conservation a California Way of Life	This Governor's Executive Order (EO) aims to bolster climate and drought resilience by directing five State agencies[2] to establish a long-term water conservation framework. The framework is part of the broader, multi-faceted implementation of the California Water Action Plan. Per the EO, Actions will be implemented within existing authority for: - Emergency water conservation regulation for 2017; - Permanent prohibition of wasteful practices; - Reduce water supplier leaks and water losses; - Certification of innovative technologies for water conservation and energy efficiency. Recommendations that will require additional authority for implementation: - New water use targets based on strengthened standards; - Strengthen urban water shortage contingency plan; - Improve drought planning for small water suppliers and rural communities; - Update agricultural water management plan requirements. Directives that will be incorporated into the above actions and recommendations, where applicable: - Acceleration of data collection; - Consultation; - Methods for reporting, compliance and enforcement. On November 30, 2016, the EO agencies released a *Draft Report on Implementing Executive Order B-37-16* to summarize individual and collective implementation actions and recommendations for the items in the EO. The comment period closed on December 19, 2016. For more information: www.gov.ca.gov/docs/5.9.16_Executive_Order.pdf www.water.ca.gov/wateruseefficiency/conservation/
Short-Lived Climate Pollutant Reduction Strategy (SB 1383, Lara, Chapter 395, Statutes of 2016) (SB 605, Lara, Chapter 523, Statutes of 2014)	The May 2014 First Update to the Climate Change Scoping Plan identified the need for a short-lived climate pollutant reduction strategy (SLCP Strategy) to minimize the impact of these short-term, yet powerful, climate forcers. SB 605 requires CARB to develop a plan to reduce emissions of SLCPs and SB 1383 requires CARB to approve and begin implementing the plan by January 1, 2018. SB 1383 also sets targets for statewide reductions of SLCPs from 2013 levels by 2030– specifically, a 40 percent reduction of methane and hydrofluorocarbons, and a 50 percent reduction of anthropogenic black carbon. The plan includes new measures to reduce methane from wastewater treatment plants. The strategy was approved by CARB on March 23, 2017. For more information:

[2] California Department of Water Resources (DWR), State Water Resources Control Board (SWRCB), California Public Utilities Commission (CPUC), California Department of Food and Agriculture (CDFA), and California Energy Commission (CEC).

Statute / Regulation / Program / Policy	Table H6-1. Water Sector Description
	www.arb.ca.gov/cc/shortlived/shortlived.htm
Water-Energy Nexus Registry (SB 1425, Pavley, Chapter 596, Statutes of 2016)	The bill requires Cal/EPA to oversee the development of a voluntary registry for GHG emissions resulting from the water-energy nexus using the best available data. It authorizes Cal/EPA to enter into a contract with a qualified nonprofit organization to develop and administer the registry. The registry will encourage activities that reduce the carbon intensity of the State's water system and help publicize actions of agencies that take voluntary action to do so. For more information: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB1425
Urban Retail Water Suppliers: Water Loss Management (SB 555, Wolk, Chapter 679, Statutes of 2015)	To reduce water loss by urban retail water suppliers, the bill requires: - Each urban retail water supplier, on or before October 1, 2017, and on or before October 1 of each year thereafter, to submit a completed and validated water loss audit report for the previous calendar year or previous fiscal year as prescribed by rules adopted by DWR on or before January 1, 2017, and updated as provided. - DWR to post all validated water loss audit reports on its Internet Web site in a manner that allows for comparisons across water suppliers and to make these reports available for public viewing. - DWR to provide technical assistance to guide urban retail water suppliers' water loss detection programs. - SWRCB, no earlier than January 1, 2019, and no later than July 1, 2020, to adopt rules requiring urban retail water suppliers to meet performance standards for the volume of water losses. - SWRCB to contribute up to $400,000 using funds available for the 2016–17 fiscal year towards procuring water loss audit report validation assistance for urban retail water suppliers. For more information: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160SB555 www.water.ca.gov/wateruseefficiency/wlaudits/
Water Management: Urban Water Management Plans (SB 1420, Wolk, Chapter 490, Statutes of 2014)	Urban Water Management Plans (UWMPs) are prepared by California's urban water suppliers to support their long-term resource planning, and ensure adequate water supplies are available to meet existing and future water demands. Every urban water supplier that either provides over 3,000 acre-feet of water annually, or serves more than 3,000 urban connections is required to assess the reliability of its water sources over a 20-year planning horizon, and report its progress on 20 percent reduction in per-capita urban water consumption by the year 2020, as required in the Water Conservation Act of 2009. The plans must be prepared every 5 years and submitted to DWR. DWR reviews the plans to make sure they have completed the requirements identified in the Water Code, Sections §10608– 10656, then submits a report to the Legislature summarizing the status of the plans. For each round of UWMPs, DWR provides guidance for urban water suppliers via a Guidebook. This bill requires that an UWMP quantify the water loss in the distribution system beginning with the 2015 plan. For more information: www.water.ca.gov/urbanwatermanagement/uwmp2015.cfm

Statute / Regulation / Program / Policy	Table H6-1. Water Sector Description
Water Conservation Act of 2009 (SBX7-7)	The Water Conservation Act of 2009 established a requirement for a 20 percent reduction in urban per capita water use by December 31, 2020, promoting expanded development of sustainable water supplies at the regional level, and requiring agricultural water management plans and efficient water management practices for agricultural water suppliers. The SWRCB and DWR are currently working on stronger water-use efficiency standards that build upon SB X7-7. State-level measures that help achieve the water conservation target include appliance efficiency standards, promulgated by the CEC, which include efficiency standards for water and energy use in appliances and equipment, sold or offered for sale in California. For more information: www.water.ca.gov/wateruseefficiency/sb7/
Recycled Water Policy	In 2009, the SWRCB adopted a statewide Recycled Water Policy. It moves the State towards sustainable management of surface waters and groundwater, together with enhanced water conservation, water reuse, and the use of stormwater, with goals to (1) increase the use of recycled water over 2002 levels by at least 1 million acre-feet per year (afy) by 2020 and at least 2 million afy by 2030; (2) increase the use of stormwater over use in 2007 by at least 500,000 afy by 2020 and by at least 1 million afy by 2030; (3) increase the amount of water conserved in urban and industrial uses by comparison to 2007 by at least 20 percent by 2020; and (4) substitution of as much recycled water for potable water as possible by 2030. Water recycling has the potential to reduce GHG emissions if it replaces, and not merely serves as an alternative to, an existing, higher carbon water supply. Therefore, while water recycling provides a benefit in expanding total water supply in times of drought, its use as a GHG reduction measure must be evaluated for a given application. For more information: www.swrcb.ca.gov/water_issues/programs/water_recycling_policy/
California Water Action Plan	The plan outlines the State's roadmap towards water sustainability. It is intended to complement and align existing State and local water planning efforts. Its three broad objectives are more reliable water supplies, the restoration of important species and habitat, and a more resilient, sustainably managed water resources system (water supply, water quality, flood protection, and environment) that can better withstand pressures in the coming decades. For more information: http://resources.ca.gov/california_water_action_plan/
2014 Sustainable Groundwater Management Act (AB 1739, SB 1318, SB 1168)	The Sustainable Groundwater Management Act (SGMA) provides for sustainable management of groundwater basins; enhances local management of groundwater consistent with rights to use or store groundwater; establishes minimum standards for effective, continuous management of groundwater; provides local groundwater agencies with authority, technical, and financial assistance to maintain groundwater supplies; avoids or minimizes impacts of land subsidence; improves data collection and understanding of groundwater resources and management; increases groundwater storage and removes impediments to recharge; empowers local agencies to manage groundwater basins while minimizing state intervention. DWR has developed a Strategic Plan to implement its responsibilities under SGMA. Some of these responsibilities include: (1) developing regulations to

Statute / Regulation / Program / Policy	Table H6-1. Water Sector Description
	revise groundwater basin boundaries; (2) adopting regulations for evaluating and implementing Groundwater Sustainability Plans and coordination agreements; (3) identifying basins subject to critical conditions of overdraft; (4) identifying water available for groundwater replenishment; and (5) publishing best management practices for sustainable management of groundwater. For more information: www.water.ca.gov/groundwater/sgm/
Department of Water Resources Climate Action Plan	DWR is implementing efforts to reduce its environmental impacts and lead by example through its approved department-wide Climate Action Plan. The first phase of this Climate Action Plan is a Greenhouse Gas Emissions Reduction Plan, which guides project development and decision making with respect to energy use and GHG emissions. The Plan shows how DWR will make substantial reductions in its GHG emissions to meet its near-term goal to reduce GHGs by 50 percent below 1990 levels by 2020 and 80 percent below 1990 levels by 2050. DWR has identified eleven GHG emissions reduction measures that it will implement to meet these goals. Measures include DWR's termination of its participation and associated delivery of electricity from a coal-fired power plant, efficiency improvements for the State Water Projects and other existing DWR facilities, purchase and development of renewable and high efficiency electricity supplies, comprehensive improvements to DWR's construction practices, and improvements to DWR's business activities that will reduce GHG emissions. As of 2014, DWR's carbon emissions were already approximately 30 percent below 1990 levels. For more information: www.water.ca.gov/climatechange/CAP.cfm .
California Appliance Efficiency Regulations (Title 20 CCR)	At the federal level, the U.S. Department of Energy (DOE) is responsible for setting minimum appliance standards and test procedures for an array of residential and commercial appliances and equipment. Many states, like California, are implementing appliance and equipment efficiency standards for products that are not already covered by federal government standards. In California, Public Resources Code Section 25402(c) authorizes the CEC to adopt energy efficiency standards for appliances that use a significant amount of energy. These regulations establish efficiency standards for water and energy use in appliances and equipment, sold or offered for sale in California, such as televisions, lamps, heating, kitchen and lavatory faucets, toilets, urinals, and other devices that use electricity, gas, and/or water. Updated toilet, urinal, and faucet regulations were adopted on April 8, 2015, and started to go into effect on January 1, 2016. For more information: www.energy.ca.gov/appliances/
Building Standards: Recycled Water Systems (AB 2282, Gatto, Chapter 606, Statutes of 2014)	Health and Safety Code § 17921.5 and 18940.6 as amended by AB 2282 in September 2014 directed the California Department of Housing and Community Development (HCD) and California Building Standards Commission (BSC) to conduct research during the 2016 Intervening Code Cycle to assist in development of mandatory green building standards for the installation of recycled water systems for newly constructed single-family, multi-family residential buildings, and non-residential buildings. As defined in the Water Code subdivision (n) of Section 13050, "recycled water means water which, as

Statute / Regulation / Program / Policy	Table H6-1. Water Sector Description
	a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource." HCD and BSC must consider development of building standards for recycled water systems in outdoor applications and indoor applications that require purple piping. They must identify the cost of the systems and estimate water savings. HCD and BSC may also limit the requirements to local jurisdictions that have access to a water recycling facility. The timeline for the adoption of the new standards for the 2016 Intervening Code Adoption Cycle would make the standards effective for applicable new construction on July 1, 2018. For more information: www.bsc.ca.gov/calendar/othermtgs.aspx
Water-Efficient Landscaping Ordinance (AB 2515, Weber, Chapter 576, Statutes of 2016)	AB 2515 requires DWR, on or before January 1, 2020, and at least every three years thereafter, to either update the Model Water-Efficient Landscaping Ordinance (MWELO) or make a finding that an update is not a useful or effective means to improve either the efficiency of landscaping water use or the administration of the ordinance. The bill also requires DWR, MWELO is update, to submit the update to the BSC for consideration during the triennial revision process of the California Green Building Standards Code. For more information: www.water.ca.gov/wateruseefficiency/landscapeordinance/
Green Building Standards Code (Title 24, Part 11 CCR – CALGreen Code)	The California Green Building Standards Code, commonly known as the "CALGreen Code," was a first-in-the nation state-adopted green building code. First published in 2008, the CALGreen Code sets goals for energy efficiency, water conservation, and environmentally preferable materials used in construction such as low-emitting and/or recycled-content flooring, carpeting, paint, coatings, and thermal insulation. CALGreen works in harmony with the State's other mandatory building codes. (See also Appendix I7 on Green Buildings) Regulations contain mandatory and voluntary building standards for the reduction of indoor and outdoor water use for residential and commercial construction. Chapter 4.3 contains mandatory residential water reduction regulations. Chapter A4.3 contains voluntary residential enhanced water reduction regulations. Chapter 5.3 contains mandatory non-residential (commercial) water reduction regulations. In addition to the Title 20 plumbing standards listed above, Title 24 includes: • Submeters for commercial properties >50,000 sf • Kitchen faucets 1.8 gpm@ 60 psi • Wash fountains 1.8/20 gpm @ 60 psi • Metering faucets 0.20 gal/cycle • Metering faucets for wash fountains 0.20/gpm @ 60 psi • Food Waste Disposers Chapter A5.3 contains voluntary non-residential (commercial) enhanced water reduction regulations including: • Clothes washers • Commercial dishwashers • Icemakers • Food steamers • Combination ovens

Statute / Regulation / Program / Policy	Table H6-1. Water Sector Description
	• Commercial pre-rinse spray valves • Food waste pulping systems • Tier 1 30 percent indoor water use savings • Tier 2 35 percent indoor water use savings • Reach standard 40 percent indoor water use savings • Nonpotable water use systems for indoor use For more information: www.bsc.ca.gov/Home/CALGreen.aspx www.arb.ca.gov/cc/greenbuildings/greenbuildings.htm
Renewable Energy Self-Generation Bill Credit Transfer (AB 2466, AB 1031, AB 512)	The Renewable Energy Self-Generation Bill Credit Transfer (RES-BCT) program was established by the Legislature effective January 1, 2009; it is codified in Public Utilities Code Section 2830. It allows local governments to generate energy from an eligible renewable generating facility for its own use and to export energy not consumed to the electrical grid. The exported energy is converted into bill credits that are applied to eligible benefitting accounts as designated by the local government. AB 1031 expanded applicability to universities. AB 512, effective January 1, 2012, modified the program to increase the generator size limit to 5 MW per generation account. Benefitting accounts must receive service under a time-of-use rate schedule. It requires the three largest electrical corporations to offer contracts to local governments under the RES-BCT program until the statewide cumulative generating capacity of all eligible renewable facilities within their service territories reaches 250 MW.
Water-Energy Grant Program	Program provides funds to implement water efficiency programs or projects that reduce GHG emissions, and reduce water and energy use. Funding is appropriated from the Greenhouse Gas Reduction Fund to DWR to establish a grant program. Eligible applicants are local agencies, joint powers authorities, and non-profit organizations. Eligible projects include residential water efficiency, commercial water efficiency, institutional water efficiency programs, or projects that reduce GHGs, reduce water and reduce energy use. The 2016 solicitation focused on these eligible programs/projects: - Commercial water efficiency or institutional water efficiency programs. - Residential water efficiency programs that benefit disadvantaged communities. - Projects that reduce GHG, reduce water, and reduce energy use. - Only projects with water conservation measures that also save energy. On March 23, 2017, DWR released Final Awards for the 2016 Water-Energy Grant Program. For more information: www.water.ca.gov/waterenergygrant/
State Water Efficiency and Enhancement Program (SWEEP)	This program is administered by CDFA and provides financial assistance in the form of grants to implement on-farm irrigation systems that reduce GHGs and save water. On October 10, 2017, CDFA announced fifty-eight projects were selected to receive 2017 SWEEP funding. For more information: www.cdfa.ca.gov/oefi/sweep/

Statute / Regulation / Program / Policy	Table H6-1. Water Sector Description
Water-Energy Research, Development, Demonstration & Deployment Projects within Electric Program Investment Charge (EPIC)	EPIC funds innovative projects in three stages; applied research and development, technology demonstration and deployment and market facilitation, that advance science and technology to improve California's electric system. Some of these projects include advancing water-energy efficient strategies and pre-commercial technologies so long as they provide a direct improvement to the electric system and benefits to ratepayers within electric Investor-Owned Utility territories. For more information: www.energy.ca.gov/research/epic/index.html

This Page Intentionally Left Blank

Appendix H7
Green Buildings Strategy

Statute / Regulation / Program / Policy	Table H7-1. Building Sector Description
California Building Energy Efficiency Standards (Title 24, Part 6 CCR – Energy Code)	CEC has the authority to adopt energy efficiency standards for buildings. California's Building Energy Efficiency Standards are updated on an approximately 3-year cycle. The 2016 standards continue to improve upon the current 2013 standards for new residential and nonresidential building construction, and major additions and alternations to. The 2016 standards went into effect on 1/1/2017. The CEC is using these standards to achieve the state's zero-net energy goal for all new residential buildings by 2020 and all new commercial buildings by 2030. For more information: www.energy.ca.gov/title24/
California Appliance Efficiency Regulations (Title 20 CCR)	At the federal level, the U.S. Department of Energy (DOE) is responsible for setting minimum appliance standards and test procedures for an array of residential and commercial appliances and equipment. Many states, like California, are implementing appliance and equipment efficiency standards for products that are not already covered by federal government standards. In California, Public Resources Code Section 25402(c) authorizes the CEC to adopt energy efficiency standards for appliances that use a significant amount of energy. These regulations establish efficiency standards for water and energy use in appliances and equipment, sold or offered for sale in California, such as televisions, lamps, heating, kitchen and lavatory faucets, toilets, urinals, and other devices that use electricity, gas, and/or water. For more information: www.energy.ca.gov/appliances/
Utility Energy Efficiency Programs	Investor-Owned Utilities (IOUs) and Publicly-Owned Utilities offer programs to target residential and nonresidential buildings and agricultural and industrial customers, including low income customers. CPUC has authorized $1 billion budgets annually for the IOUs, and the IOU's portfolios add approximately 2,500 GWh and 60 MM Therms of additional first year savings each year. Programs support energy efficiency activities through: • Customer rebates • Financing • Marketing, outreach and education • Workforce education and training • Codes and Standards advocacy • Emerging technologies and market transformation • Government partnerships

Statute / Regulation / Program / Policy	Table H7-1. Building Sector Description
Existing Buildings Energy Efficiency Action Plan (AB 758, Skinner, Chapter 470, Statutes of 2009)	Framework with recommended actions to focus State and local governments, building contracting industries, real estate industries, and other stakeholders in achieving greater energy and water efficiency in existing residential, commercial, and public buildings to meet Governor Brown's goal of doubling energy savings in California's buildings by 2030. Actions recommended within this Action Plan are funded through multiple sources but the Action Plan itself has no funding associated with it. For more information: www.energy.ca.gov/ab758/
California Clean Energy Jobs Act (Proposition 39 K-12 Schools Program)	Proposition 39 changed the corporate income tax code and allocates projected revenue to California's General Fund and the Clean Energy Job Creation Fund for five fiscal years (beginning FY 2013-14 through FY 2017-18). Under the initiative, up to $550 million annually is available for appropriation by the Legislature for eligible projects to improve energy efficiency and expand clean energy generation in schools. For more information: www.energy.ca.gov/efficiency/proposition39/index.html
Energy Savings Assistance Program	The program provides no-cost weatherization services to low-income households who meet California Alternate Rates for Energy (CARE) income guidelines. Services include attic insulation, energy efficiency refrigerators, energy efficiency furnaces, weather stripping, caulking, low-flow showerheads, water heater blankets, and door and building envelope repairs which reduce air infiltration. The program is implemented through California utility programs, with an annual funding authorization of approximately $300 million for the investor owned utilities. For more information: www.csd.ca.gov/services/residentialenergyefficiencyservices.aspx
Weatherization Assistance Program	U.S. DOE program provides grants to states, territories, and some Native American tribes to improve the energy efficiency of homes of low-income families. In California, the program is implemented by the California Department of Community Services & Development who partners with nonprofit and local government providers to deliver weatherization services around the State. Common types of weatherization services include, sealing holes and cracks around windows, doors, and pipes; ensuring proper levels of insulation; fixing or replacing windows; putting an insulated blanket around the water heater; and making sure heating and air conditioning systems are working properly. For more information: https://energy.gov/eere/wipo/weatherization-assistance-program
Energy Efficiency Financing Program (aka Energy Conservation Assistance Account ECAA)	Low-interest loan program for public entities (cities, counties, special districts and hospitals) to finance energy efficiency and clean energy generation projects For more information: www.energy.ca.gov/efficiency/financing/

Statute / Regulation / Program / Policy	Table H7-1. Building Sector Description
Executive Order B-18-12	This Governor's executive order sets goals for California to lead by example by greening State government buildings. The order requires State agencies and departments to reduce entity-wide GHG emissions by 10 percent by 2015 and 20 percent by 2020; to reduce grid-based energy purchases by at least 20 percent by 2018; achieve LEED[3] "Silver" certification level or higher for new or major renovated State buildings; ensure all new buildings and half of existing buildings are zero-net energy (ZNE) buildings by 2025; and install electric vehicle charging stations to accommodate future infrastructure demand. Data from 2015 demonstrates that State agencies are on track to meet or exceed the goals. State agencies have reduced water use by 40 percent compared to 2010, meeting the order's reduction goal of 20 percent by 2020, and are well on their way toward meeting the goal of 20 percent energy savings by 2018. State energy and water use are benchmarked and reported using the online tool ENERGY STAR Portfolio Manager. Over 150 State owned and leased buildings have been certified to LEED. California state agencies have also been able to reduce entity-wide GHG emissions by 50 percent below 2010 baseline levels for a total reduction of 1.6 $MMTCO_2e$. These GHG emission reductions are based on savings in natural gas use, vehicle fuels, and purchased electricity. In the future, these State agencies could realize additional reductions by preventing, rescuing, and recycling food waste as required by AB 1826 (Mandatory Commercial Organics Recycling). More information on how State buildings are meeting the Executive Order's goals can be found on the following website: www.greenbuildings.ca.gov/.
Green Building Standards Code (Title 24, Part 11 CCR – CALGreen Code)	The California Green Building Standards Code, commonly known as the "CALGreen Code," was a first-in-the nation state-adopted green building code. First published in 2008, the CALGreen Code sets goals for energy efficiency, water conservation, and environmentally preferable materials used in construction such as low-emitting and/or recycled-content flooring, carpeting, paint, coatings, and thermal insulation. CALGreen works in harmony with the State's other mandatory building codes. The CALGreen Code includes mandatory high global warming potential (high-GWP) regulations to reduce refrigerant leaks in supermarkets. All new residential and commercial buildings must install electric vehicle (EV) charging infrastructure to accommodate future installation of EV charging stations. Fueling vehicles with electricity helps to reduce GHG emissions especially when the electricity is generated by renewable energy. Because of California's severe drought, the California Building Standards Commission (BSC) approved emergency building standards in May 2015 to reduce potable water use for exterior landscape irrigation. These building standards amended sections on outdoor water use in the CALGreen Code and went into effect on June 1, 2015. The 2016 CALGreen Code includes a new requirement to divert at least 65 percent of construction and demolition waste from landfills, which will assist with reducing additional GHG emissions.

[3] LEED, or Leadership in Energy and Environmental Design, is a third-party verification for green buildings. LEED is tailored to all buildings at all phases of development. Projects pursuing LEED certification earn points across several areas that address sustainability issues. Based ono the number of points achieved, a project then receives one of four LEED rating levels: Certified, Silver, Gold, and Platinum.

Statute / Regulation / Program / Policy	Table H7-1. Building Sector Description
	For more information: www.bsc.ca.gov/Home/CALGreen.aspx www.arb.ca.gov/cc/greenbuildings/greenbuildings.htm
Beyond Code Local Ordinance	Local governments are often at the forefront of climate action. Cities and counties statewide are continuing to advance innovative green building programs and have adopted voluntary "reach" standards. Over and above mandatory building standards, the CALGreen Code includes a voluntary component known as the Tiers. Tier 1 and Tier 2 give local governments an option to adopt consistent and streamlined green building standards that go beyond mandatory code requirements. More progressive local governments are adopting requirements for all new construction and major renovations to be certified to third party certified green building rating systems such as LEED, GreenPoint Rated, and/or the Living Building Challenge. Each of these methods will assist local jurisdictions to further reduce GHG emissions, promote even more sustainable construction practices, and begin to address social equity. As more local governments continue to adopt "beyond code" measures, they will assist with meeting California's 2030 target. Additional GHG emission reductions may be achieved if local government actions are further incentivized. For more information: www.bsc.ca.gov/Rulemaking/LocalCodeOrdinances.aspx
Doubling Energy Savings (SB 350, De Leon, Chapter 547, Statutes of 2015)	SB 350 seeks to increase energy efficiency in buildings by 50 percent by 2030, and gives California's energy agencies the authority to review and revise energy efficiency programs to marshal the funds and regulatory actions necessary to reach this target. SB 350 requires the CEC to establish annual targets for statewide energy efficiency savings and demand reduction to achieve a doubling of savings in electricity and natural gas final end uses of retail customers by 2030. In concert, the CPUC will establish energy efficiency targets for electrical and gas corporations consistent with the statewide goal and the publicly-owned utilities will establish their own annual targets to meet the statewide goal. For more information: https://apps.cpuc.ca.gov/apex/f?p=401:1:0 (Proceeding R.16-02-007) www.energy.ca.gov/sb350/
Commercial Building Energy Use Disclosure (AB 802, Williams, Chapter 590, Statutes of 2015)	AB 802 requires the creation of a new energy-use benchmarking and disclosure program, expanding the eligibility for IOU energy efficiency incentives, and improving electricity system infrastructure planning through more accurate statewide electricity and natural gas demand forecasting. For more information: www.energy.ca.gov/benchmarking/
Building Standards: Recycled Water Systems (AB 2282, Gatto, Chapter 606, Statutes of 2014)	Health and Safety Code § 17921.5 and 18940.6 as amended by AB 2282 in September 2014 directed the California Department of Housing and Community Development (HCD) and California Building Standards Commission (BSC) to conduct research during the 2016 Intervening Code Cycle to assist in development of mandatory green building standards for the installation of recycled water systems for newly constructed single-family, multi-family residential buildings, and non-residential buildings. As defined in the Water Code subdivision (n) of Section 13050, "recycled water means water

Statute / Regulation / Program / Policy	Table H7-1. Building Sector Description
	which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource." HCD and BSC must consider development of building standards for recycled water systems in outdoor applications and indoor applications that require purple piping. They must identify the cost of the systems and estimate water savings. HCD and BSC may also limit the requirements to local jurisdictions that have access to a water recycling facility. The timeline for the adoption of the new standards for the 2016 Intervening Code Adoption Cycle would make the standards effective for applicable new construction on July 1, 2018. For more information: www.bsc.ca.gov/calendar/othermtgs.aspx
Mandatory Commercial Recycling (AB 341, Chesboro, Chapter 476, Statutes of 2011) **Mandatory Commercial Organics Recycling (AB 1826, Chesboro, Chapter 727, Statutes of 2014)**	AB 341 and AB 1826 have added requirements to businesses, including state operations, which will require the use of recycling services when specific thresholds are met for both solid waste and organics generation. For more information: www.calrecycle.ca.gov/recycle/commercial/ www.calrecycle.ca.gov/Recycle/Commercial/Organics/
Water-Efficient Landscaping Ordinance (AB 2515, Weber, Chapter 576, Statutes of 2016)	AB 2515 requires DWR, on or before January 1, 2020, and at least every three years thereafter, to either update the Model Water-Efficient Landscaping Ordinance (MWELO) or make a finding that an update is not a useful or effective means to improve either the efficiency of landscaping water use or the administration of the ordinance. The bill also requires DWR, MWELO is update, to submit the update to the BSC for consideration during the triennial revision process of the CALGreen Code. For more information: www.water.ca.gov/wateruseefficiency/landscapeordinance/
Climate Change Infrastructure Planning (AB 2800, Quirk, Chapter 580, Statutes of 2016)	AB 2800 requires State agencies to take into account the current and future impacts of climate change when planning, designing, building, operating, maintaining, and investing in State infrastructure, through July 1, 2020. By July 1, 2017, the California Natural Resources Agency is required to establish a Climate-Safe Infrastructure Working Group for the purpose of examining how to integrate scientific data concerning projected climate change impacts into State infrastructure engineering, as prescribed. For more information: http://resources.ca.gov/climate/climate-safe-infrastructure-working-group/