

APPENDIX B

2012 Climate Action Plan 2017 Implementation Status Report

The City of Santa Barbara Climate Action Plan (CAP) was adopted in September 2012 with objectives to reduce community carbon emissions that contribute to global climate change, and to plan for community adaptation to climate change effects.

The CAP horizon extends through the year 2030. As funding becomes available in the City budget or from grants, implementation of programmatic CAP strategies is undertaken by City department programs and operations, or through joint efforts with private sector businesses or other agencies. Implementation of CAP strategies also occurs through the permitting process for development projects. Many in-place and future programs will be ongoing through the planning period to 2030 and others have target dates of 2015, 2020, 2025 or 2030 as noted in the chart. The CAP directs regular monitoring and reporting of plan implementation and status in coordination with General Plan reporting.

CAP strategies include both City government operations and communitywide measures. As noted within the chart, some CAP strategies incorporate the City’s General Plan Update Environmental Impact Report (EIR) Mitigation Measures; these strategies are cross referenced to the Mitigation Monitoring and Reporting Program (MMRP) chart. Strategies that are considered complete are noted with a check mark in the chart. The implementation status chart indicates that City facility operations and community efforts are on track toward CAP objectives.

In 2016, the City joined the Compact of Mayors, which subsequently merged into the Global Covenant of Mayors of Climate and Energy. The Global Covenant commits member cities’ to common greenhouse gas (GHG) emissions reporting processes that allow for consistent and reliable assessment of progress towards meeting GHG emissions targets. An update of the community-wide GHG emissions inventory was conducted in 2017 to monitor progress toward CAP emissions targets. The 2017 GHG emissions inventory used updated software to complete the inventory and the international standard Global Protocol for Community-Scale GHG Emission Inventories (GPC) for accounting and reporting GHG emissions. The new software and reporting protocols will allow the City to better track progress towards meeting GHG emissions reduction targets and compare Santa Barbara’s progress to other similar cities in the Global Covenant of Mayors.

Note: The following chart summarizes Climate Action Plan strategy language. Please refer to the Plan for the full text of referenced strategies.

Emission Reduction Strategies			
	Climate Plan Strategy	Target	Implementation/ Status (2013-2017)
Energy Efficiency and Green Building Measures			
These measures reduce carbon emissions that result from the combustion of fossil fuels for electricity generation, through more efficient electrical devices and conservation practices for existing and new structures. The CAP details many energy efficiency activities already undertaken or in place. The CAP measures below are additional actions towards energy efficiency.			
City Facilities and Operations			
	1. Energy-efficient city facilities <i>Incorporates EIR RM Climate-3/GP Policy ERS.2</i> Retrofit municipal systems with energy efficient equipment and operations.	Ongoing	Ongoing <ul style="list-style-type: none"> • See General Plan Program EIR Mitigation Monitoring and Reporting Program (MMRP) Energy and Climate Change Measure Class III #26, Energy Efficient City Facilities. • Implement City Energy Use Policy
	2. Recreational field lighting efficiency Install energy efficient lighting at Dwight Murphy and Pershing ball fields.	2015	Complete <ul style="list-style-type: none"> • Energy efficient lighting also installed at Cabrillo Ball Field and Ortega Park.

Emission Reduction Strategies

	Climate Plan Strategy	Target	Implementation/ Status (2013-2017)
Communitywide Measures			
	<p>3. Energy-efficient buildings – voluntary actions</p> <p>Encourage new construction consistent with City green programs and policies, the California Green Building Code, and Architecture 2030 goals for energy efficiency in buildings.</p> <p>Further reduce energy consumption over time and establish a voluntary program and time line for increasing energy efficiency and carbon neutrality of new buildings, additions, and existing buildings. Provide:</p> <ul style="list-style-type: none"> • Information on options; • Incentives for voluntary upgrades; • Methods for greening the existing building stock; • Tools for financing energy-efficient upgrades and on-site solar and wind power; and • County green business program. 	Ongoing	<p>Ongoing</p> <p>Consistency with Building Code Requirements:</p> <ul style="list-style-type: none"> • The following updates to the state’s energy efficiency standards for buildings (updated approximately every three years) supersede the City’s Green Building Standards for Large Residences, Built Green program. <ul style="list-style-type: none"> ○ 2016 Building Energy Efficiency Standards for energy and water efficiency went into effect on 1/1/17. The 2016 standards focus on three key areas: 1) updating residential requirements to move closer to California’s zero net energy goals, 2) updating nonresidential and high-rise residential requirements, and 3) improving the existing regulations. ○ The 2013 California Green Building Standards Code (CALGreen), which went into effect on 7/1/14, was the nation’s first mandatory statewide green building standard. The 2016 CalGreen standards address clean air vehicles and increased requirements for electric vehicle charging infrastructure <p>Further Energy Efficiency Voluntary Actions:</p> <ul style="list-style-type: none"> • Building Green information brochure provides resources for construction and remodeling. • Financing tools and information are available through participation in South Coast Energy Efficiency Partnership, Central Coast emPower, and Green Business programs. • A City incentive provides priority plan check processing for projects that have received any green building certification (e.g., LEED, Built Green).
	<p>4. Energy-efficient buildings- further actions</p> <p>Institute additional outreach, incentives, and requirements if there is insufficient progress from the voluntary program (using 50% progress towards City’s Architecture 2030 efficiency goals by 2020).</p>	2025 - 2030	<p>Ongoing</p> <p>The Architecture 2030 Challenge requires all new buildings, developments, and major renovations to be carbon-neutral by 2030. The California Energy Commission has adopted a goal to achieve zero net energy buildings standards by 2020 for homes and 2030 for commercial buildings.</p> <p>No Budget or Work to Date</p> <ul style="list-style-type: none"> • No additional outreach and incentives developed.
	<p>5. Green building</p> <p>Promote use of more sustainable building and landscaping materials and methods. Establish additional incentives for the use of locally harvested, renewable, buildings or manufacturing materials.</p>	Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> • City Landscape Standards for Water Conservation and other programs provides advice and rebates for sustainable low water use landscaping and irrigation retrofits. <p>No Budget or Work to Date</p> <ul style="list-style-type: none"> • No incentives developed.

Emission Reduction Strategies			
	Climate Plan Strategy	Target	Implementation/ Status (2013-2017)
Renewable Energy Strategies			
<p>Renewable energy means power sources that will not be depleted, such as solar, wind, geothermal, hydroelectric, biomass, methane, and wave energy, as well as alternative non-petroleum fuels. Use of renewable energy sources reduces carbon emissions from electricity and vehicles powered with petroleum fuels. In 2012, the City had already increased its use of renewable energy from solar installations at City facilities and renewable energy projects at the wastewater treatment plant (twin fuel cell system converting methane to electricity and grease-to-gas injection project). The CAP measures below are additional renewable energy programs and projects.</p>			
City Facilities			
	<p>6. Hydroelectric plant re-commissioning Re-commission the City's Gibraltar Conduit Hydroelectric Plant.</p>	2015	<p>Complete</p> <ul style="list-style-type: none"> Plant is capable of producing up to 1,874 megawatt-hours of energy annually.
	<p>7. Solar photovoltaic (PV) project at airport Install PV panels over portions of the Airport long-term parking area; use power purchase agreement.</p>	2015	<p>In Progress</p> <ul style="list-style-type: none"> City entered a power purchase agreement with a new vendor to install and operate a 900kW solar array. Currently under design development.
Communitywide Measures			
	<p>8. Community choice aggregation Conduct feasibility study on bulk purchase or energy production from alternative sources.</p>	2020, 2030	<p>Complete</p> <ul style="list-style-type: none"> Santa Barbara County led the Technical Feasibility Study on Community Choice Aggregation (CCA) released in August 2017. The results of the study indicate the CCA does not meet feasibility criteria but other actions could be taken to support renewable power goals.
	<p>9. Alternative/advanced fuels Support and implement the State's Alternative Fuels Plan (AB 1007) goal for 20% alternative/advanced fuels use by 2020; 30% by 2030.</p>	2020, 2030	<p>Ongoing</p> <ul style="list-style-type: none"> The EV Alliance in collaboration with Santa Barbara County completed the Alternative Fuels Readiness Plan (2016) to guide the development of policies and infrastructure for the Central Coast region.
	<p>10. Alternative fuel infrastructure <i>Partially implements EIR RM AQ-1/ GP Policy ER8, ER8.1</i> Provide expedited processing for projects providing alternative/advanced fuel infrastructure.</p>	2015	<p>In Progress</p> <ul style="list-style-type: none"> See MMRP Class III Impacts, Air Quality Measure #1, Reduce Sources of Air Pollutants.
	<p>11. Small wind generators Study issues; develop siting standards.</p>	2020	<p>No Budget or Work to Date Per state legislation, California counties have adopted ordinances for the installation of small wind generators but no work has been initiated for the City.</p>
	<p>12. Facilitate renewable energy technologies Promote flexible design standards, streamlined permitting, and other incentives.</p>	2020	<p>Ongoing</p> <ul style="list-style-type: none"> Expedited solar permitting review process is available for systems of 10kW AC rating or less on one or two unit residential dwellings or accessory structures.

Emission Reduction Strategies

	Climate Plan Strategy	Target	Implementation/ Status (2013-2017)
	<p>13. Solar energy Encourage solar photovoltaic (PV) arrays for new development:</p> <p>(a) <i>Multi-Family Residential (≥3 du)</i>: Minimum 2 kW system required if feasible.</p> <p>(b) <i>Small Residential (1-2 du)</i>: 300 SF roof area for future solar installation required if feasible.</p> <p>(c) <i>Commercial/industrial</i>: Minimum 5 kW system per net new SF, or PV system providing 30% of average energy demand required.</p>	<p>2015, Ongoing</p>	<p>Complete</p> <ul style="list-style-type: none"> “Solar Ready” roof space design provision is required on newly constructed single unit and low-rise (3 stories or fewer) multiunit residential buildings and commercial buildings under 10 stories. <p>Ongoing</p> <ul style="list-style-type: none"> Project applicants receive advisory statements reflecting City policies in support of solar energy facilities. <p>In Progress</p> <ul style="list-style-type: none"> Multiunit residential and commercial design guidelines for PV arrays.
<p>Travel and Land Use Strategies</p> <p>Travel and land use measures aim to reduce carbon emissions from the combustion of petroleum-based vehicle fuels. Examples of local methods to reduce vehicle trips and associated emissions include telecommuting, alternate work hours, ride sharing, car sharing and enhancing the convenience of using alternatives to driving alone. Land use measures include designations and incentives to establish housing closer to employment and local services. The CAP measures below include continuing and expanding existing City and community-wide travel and land use strategies that reduce carbon emissions from single occupancy petroleum-based vehicles.</p>			
<p>City Facilities and Operations</p>			
	<p>14. Fleet vehicles Transition City fleet vehicles to more alternative technologies/fuels with lower carbon emissions.</p>	<p>Ongoing</p>	<p>Ongoing</p> <ul style="list-style-type: none"> The City maintains 52% of its fleet with alternative technology/fuel vehicles, including electric, hybrid, B20 biodiesel, compressed natural gas, ethanol, and liquid propane vehicles.
	<p>15. City employee travel changes <i>Incorporates EIR MM Trans-2c/ GP Policies C6, C6.3 - 6.4, C6.6-6.8</i> Expand programs to reduce employee commute and work-related vehicle trips.</p>	<p>Ongoing</p>	<p>Ongoing</p> <ul style="list-style-type: none"> See MMRP Class I Transportation Measure #5, Expand Transportation Demand Management (TDM) Program.
<p>Communitywide Measures – Land Use</p>			
	<p>16. Mixed use land use policies Implement new policies for smaller unit and density incentives to encourage workforce and affordable housing close to transit, services, employment.</p>	<p>2015, Ongoing</p>	<p>Complete</p> <ul style="list-style-type: none"> Implementing activities include the Nonresidential Growth Management Ordinance / Traffic Management Strategy and Average Unit-Size Density (AUD) Incentive Ordinance. See the AUD high density and priority overlay. Housing units under the AUD program are located close to transit services and employers.
	<p>17. Sustainable neighborhood plans Develop neighborhood plans to enhance livability and accessibility, and reduce carbon footprint.</p>	<p>2020, 2030</p>	<p>No Budget or Work to Date</p> <ul style="list-style-type: none"> The City has not initiated work on the Sustainable Neighborhood Plans; however, the Mesa Architects neighborhood volunteer group has started initial work on a Mesa Village neighborhood plan.
	<p>18. Experimental development Establish permit process and flexible standards on limited basis for alternative development materials and techniques that reduce carbon.</p>	<p>2015, Ongoing</p>	<p>Complete</p> <ul style="list-style-type: none"> Green roof design criteria and procedure outlined in the City’s Storm Water Best Management Practices Guidance Manual (2013); however, Fire Code update prohibits green roofs in designated High Fire areas. <p>No Budget or Work to Date</p> <ul style="list-style-type: none"> Permit process and flexible standards.

Emission Reduction Strategies

	Climate Plan Strategy	Target	Implementation/ Status (2013-2017)
	<p>19. Complementary land uses <i>Incorporates EIR MM Trans-2a/ GP Policy LG4.4</i></p> <p>Establish provisions to facilitate uses serving daily needs of neighborhoods and employment areas as part of Downtown infill, mixed-use development, and Sustainable Neighborhood Plans.</p>	<p>2020, Ongoing</p>	<p>Complete</p> <ul style="list-style-type: none"> See MMRP Class I Transportation Measure #3, Neighborhood Stores. <p>Ongoing</p> <ul style="list-style-type: none"> Mixed-use development and downtown infill projects. <p>No Budget or Work to Date</p> <ul style="list-style-type: none"> Sustainable Neighborhood Plans (see CAP Strategy #17).
	<p>20. Electric vehicle (EV) charging stations <i>Incorporates EIR RM AQ-1/ GP Policy ER8, ER8.1</i></p> <p>Work with the business community and interest groups to facilitate installation of a network of additional EV charging stations:</p> <ul style="list-style-type: none"> Install stations in City parking facilities. Implement the Plug-In Electric Vehicle (PEV) Readiness Plan for the Central Coast (sites, grants, outreach). Expedited permit process Consider requiring EV pre-wiring; designating zones for quick and slow charging facilities; requiring % required parking with EV charging equipment. 	<p>2015 and Ongoing</p>	<p>Complete</p> <ul style="list-style-type: none"> Installed 8 public EV charging stations at City parking lots. See MMRP Class III Air Quality Measure #1, Reduce Sources of Air Pollutants. <p>Ongoing</p> <ul style="list-style-type: none"> Implementation of the PEV Readiness Plan. <p>No Budget or Work to Date</p> <ul style="list-style-type: none"> Designate zones and land uses for quick charging and slow charging EV facilities.
Communitywide Measures - Transportation			
	<p>21. Pedestrian infrastructure <i>Incorporates EIR MM Trans-2d/GP Policy C1.1</i></p> <p>Continue to implement additional pedestrian improvements.</p>	<p>2020, Ongoing</p>	<p>Ongoing</p> <ul style="list-style-type: none"> See MMRP Class I Transportation Measure #6, Enhance Bicycle and Pedestrian Access and Infrastructure.
	<p>22. Bicycle infrastructure improvements <i>Incorporates EIR MM Trans-2d/GP Policy C1.1</i></p> <p>Continue to implement additional Bicycle Master Plan measures and safe routes to school improvements. Coordinate with South Coast agencies to expand regional routes.</p>	<p>2015, Ongoing</p>	<p>Ongoing</p> <ul style="list-style-type: none"> See MMRP Class I Transportation Measure #6, Enhance Bicycle and Pedestrian Access and Infrastructure.
	<p>23. Personal transportation <i>Incorporates EIR MM Trans-2c/ GP Policies C6, C6.3 - 6.4, C6.6-6.8</i></p> <p>Work with business and community to establish car and bicycle sharing programs.</p>	<p>Ongoing</p>	<p>Complete</p> <ul style="list-style-type: none"> Carshare Vehicle Program initiated in 2017. <p>Ongoing</p> <ul style="list-style-type: none"> See MMRP Class I Transportation Measure #5, Expand TDM Program. A bike sharing program is proposed in the Bicycle Master Plan and CIP, bike sharing system design is underway.
	<p>24. Inter-modal connections</p> <p>Continue to improve route connections between car pool vehicles, transit, bicycles, and pedestrians.</p>	<p>Ongoing</p>	<p>Ongoing</p> <ul style="list-style-type: none"> Inter-modal connections are included in projects as applicable; examples include bike/pedestrian components of roundabout and bridge designs.

Emission Reduction Strategies			
	Climate Plan Strategy	Target	Implementation/ Status (2013-2017)
	<p>25. Optimize roadway capacity, flow</p> <p>Continue to use and refine Intelligent Transportation System (ITS) techniques such as signal timing.</p>	Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> The City continues to use and refine ITS.
	<p>26. Mid-block traffic improvements</p> <p><i>Incorporates EIR MM Trans-1b/GP Policy C1.5</i></p> <p>Continue measures to improve mid-block flow, connectivity, and sustainable mode access.</p>	Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> See MMRP Class II Transportation Measure #25, Implement a “Friction” – Reducing Program for City Streets.
	<p>27. Regional transportation and transit</p> <p><i>Incorporates EIR MM Trans-2f/GP Policy C2.2, 2.3</i></p> <p>Continue to coordinate regionally to improve network efficiency in conjunction with Sustainable Communities Strategy (SCS) planning.</p>	Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> See MMRP Class I Transportation Measure Class I #8, Improve Transit Services. Regional transportation coordination occurs through SBCAG’s Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS). <p>In Progress</p> <ul style="list-style-type: none"> The RTP/SCS (Fast Forward 2040) is being updated by SBCAG. The Highway 101 High-Occupancy Vehicle (HOV) Lane project is undergoing further design for permitting, analysis of funding options.
	<p>28. Vehicle speeds</p> <p>Advocate legislation to promote speed limits that consider street design, land uses, travel modes.</p>	2015	<p>In Progress</p> <ul style="list-style-type: none"> The City’s Legislative Platform specifically supports strategy #28.
	<p>29. Bus pull-out right of way</p> <p>Advocate legislation to facilitate buses merging back into traffic.</p>	2015	<p>In Progress</p> <ul style="list-style-type: none"> The City’s Legislative Platform specifically supports strategy #29.
	<p>30. Circulation improvements</p> <p><i>Incorporates EIR MM Trans-1a/ GP Policy C6.1 and MM Trans-1c/GP Policy C6.2</i></p> <p>Identify intersection deficiencies, improvements, funding, and install improvements.</p>	Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> See MMRP Class I Transportation Measure #1, Installation of Improvements at Intersections Currently Controlled by Stop Signs and #2, Intersection Master Plan to Address Problem Intersections.
	<p>31. Transit passes</p> <p><i>Incorporates EIR MM Trans-2c/ GP Policies C6, C6.3-6.4, C6.6-6.8</i></p> <p>Establish program to require employer-paid transit passes; work with region to include bus and rail.</p>	Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> See MMRP Class I Transportation Measure Class I #5, Expand TDM Program.
	<p>32. Parking policies</p> <p><i>Incorporates EIR MM Trans-2e/ GP Policy C6.5, C7, C7.1</i></p> <p>Continue to refine parking policies in support of traffic management and reduced vehicle emissions.</p>	Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> See MMRP Class I Transportation Measure #7, Parking Management. Average Unit-Size Density (AUD) incentive program includes reduced parking provisions that are being considered for further refinement.

Emission Reduction Strategies			
	Climate Plan Strategy	Target	Implementation/ Status (2013-2017)
	<p>33. Car-pooling and telecommuting</p> <p><i>Incorporates EIR MM Trans-2c/ GP Policies C6, C6.3 - 6.4, C6.6-6.8</i></p> <p>Continue to work with public/private interests and regional partners to promote carpooling/ telecommuting.</p>	Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class I Transportation Measure #5, Expand TDM Program.
	<p>34. Car-sharing</p> <p><i>Incorporates EIR MM Trans-2c/ GP Policies C6, C6.3 - 6.4, C6.6-6.8</i></p> <p>Continue to work with public/private interests and regional partners to establish car sharing programs.</p>	Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class I Transportation Measure #5, Expand TDM Program. • Also see CAP Strategy #23 regarding car sharing.
	<p>35. Development impact fees</p> <p><i>Incorporates EIR RM Serv-3/ GP Policy EF26</i></p> <p>Conduct feasibility study of development fee to fund circulation improvements.</p>	2015	<p>Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class III Public Services Measure #22, Development Impact Fee. • Development fee to fund periodic traffic model updates was adopted (2013) and is applied to projects.
	<p>36. Street widths</p> <p>Continue to consider street width or lane reductions to accommodate improvements where appropriate.</p>	Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> • Street width and lane reductions are considered in appropriate circumstances, including implementation of Bicycle Master Plan and Pedestrian Master Plan.
	<p>37. New development vehicle emissions</p> <p>Require new development to demonstrate how projects will support the City in attaining GHG vehicular emissions reduction targets established by SBCAG pursuant SB 375.</p>	2015	<p>No Budget or Work to Date</p> <p>Per the 2040 Regional Transportation Plan and Sustainable Communities Strategy (2013), SBCAG's regional GHG emission reduction target is a zero net increase in per capita GHG emissions from vehicles and trucks in 2020 and 2035 compared to 2005 emissions. A new target has been proposed by the California Air Resources Board (CARB) of a 13% decrease in GHG emissions by 2020 and a 17% reduction by 2035. To date, individual development projects have not been charged with demonstrating how to support these targets.</p>
	<p>38. Marine shipping emissions</p> <p>Support regional and state efforts to reduce marine shipping emissions.</p>	Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> • The City worked with SB County Air Pollution Control District (APCD) to advocate for reduced ship speed limits through the SB channel to reduce GHG emissions. • The APCD, working with partners, initiated a Vessel Speed Reduction Incentive Trial Program in the SB Channel in 2014, with six shipping companies participating. The program has been expanded to include protection of endangered whale species and 10 shipping companies are participating as of 2016.

Emission Reduction Strategies

	Climate Plan Strategy	Target	Implementation/ Status (2013-2017)
<p>Vegetation Strategies</p> <p>Trees are an important factor in climate change because they remove carbon emissions from the atmosphere by photosynthesis or growth (known as carbon sequestration), as well as providing cooling shade. There are many activities to provide and preserve trees and vegetation in Santa Barbara including <i>Santa Barbara Beautiful</i> financing the planting of street trees, the City's parks, landscape, and tree maintenance program, City tree preservation policies and landscape guidelines, and creeks restoration. The CAP measures below are additional future communitywide measures.</p>			
<p>Communitywide Measures - Vegetation</p>			
	<p>39. Tree planting</p> <p>Plant 1,000 net new trees to increase carbon sequestration.</p>	<p>2030</p>	<p>Ongoing</p> <ul style="list-style-type: none"> • The City with Santa Barbara Beautiful planted 265 street trees since FY13. • The City's Creek Restoration Program resulted in 135 trees planted since FY13 and 384 riparian trees and shrubs planted since FY14. • In 2014 the City suspended tree planting activity in light of severe drought conditions, including 120 trees programmed for Mission Creek. Activity will resume as soon as feasible.
	<p>40. Street trees</p> <p>Update Street Tree Master Plan to address long-term tree preservation measures.</p>	<p>2015, Ongoing</p>	<p>Ongoing</p> <ul style="list-style-type: none"> • Urban Forest Master Plan (adopted 2014) has direction for updating Street Tree Master Plan. • Historic and Specimen Tree Drought Action Plan prepared in 2014. • Vacant street tree site inventory initiated in FY15. • Street Tree Infrastructure Study completed for Downtown, Westside, Eastside neighborhoods. <p>No Budget or Work to Date</p> <ul style="list-style-type: none"> • 2016-2021 CIP includes unfunded project to update the Street Tree Master Plan.
	<p>41. Tree and landscaping protection</p> <p><i>Incorporates EIR RM Bio-1/GP Policy ER11-11.3</i></p> <p>Protect native trees and promote use of native, drought-tolerant species in landscaping.</p> <ul style="list-style-type: none"> • Update ordinance to protect native and exotic trees. • Site new development to protect specimen oaks and oak woodland habitat. • Create enforcement/mitigation program for loss of protected trees (street trees, front yard trees, and historic or otherwise designated trees). 	<p>2015, Ongoing</p>	<p>Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class III Biological Resources Measure #2, Oak Woodland Protection. • The City promotes sustainable landscaping including use of native and drought-tolerant species. <p>In Progress</p> <ul style="list-style-type: none"> • Local Coastal Program (LCP) update includes tree protection policies within Coastal Zone. <p>No Budget or Work to Date</p> <ul style="list-style-type: none"> • Implementation of the Urban Forest Management Plan is in the 2016-2021 CIP but currently unfunded. • Citywide ordinance updates to specially protect native oaks, other native, or exotic trees.

Emission Reduction Strategies

	Climate Plan Strategy	Target	Implementation/ Status (2013-2017)
	<p>42. Urban heat island effect <i>Incorporates EIR RM Energy-2/GP Policy ER1.3</i></p> <ul style="list-style-type: none"> Amend zoning ordinance standards to decrease impermeable surfaces and building areas relative to lot size. Coordinate with Fire and Public Works/ Transportation to change roadway standards allowing more permeable surfaces. Provide incentives for projects incorporating cool roofs and green roofs. 	2020	<p>Ongoing</p> <ul style="list-style-type: none"> See MMRP Class III Energy and Climate Change Measure #25, Exterior Heat Gain Standards.
	<p>43. Regional open space preservation <i>Incorporates EIR MM Vis-2/ GP Policy OP2.3</i></p> <p>Coordinate with agencies to protect regional open space in Las Positas Valley, foothills, and other areas as appropriate.</p>	Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> See MMRP Class II Open Space and Visual Resources Measure #21, Preservation of Regional Open Space.
<p>Waste Reduction Strategies</p> <p>Landfills and wastewater treatment plants generate methane, a very potent greenhouse gas. Methane capture for energy use or flaring can reduce these emissions. Another waste reduction strategy focuses on diverting materials from waste disposal through reuse, recycling, and composting to reduce the energy use and emissions associated with product manufacturing and transport. California legislation in 1989 required 50% diversion of solid waste from landfills by the year 2000. Subsequent legislation has set a statewide recycling goal of 75% reduction by 2020 focusing on source reduction, recycling and composting. Actions by private community members, organizations, and businesses are key to reducing and diverting waste in Santa Barbara. The following CAP strategies are additional City and community waste reduction activities.</p>			
<p>City Facilities and Operations</p>			
	<p>44. City business purchasing guidelines</p> <p>Amend City procurement guidelines to increase use of recycled materials in City operations.</p>	2015	<p>Ongoing</p> <ul style="list-style-type: none"> The City's Environmentally Preferred Purchasing Policy, adopted in 2008, remains in effect. <p>No Budget or Work to Date</p> <ul style="list-style-type: none"> The policy has not been updated since 2008.
	<p>45. City facilities recycling</p> <p>Expand recycling programs at City facilities with goals of 50% diversion by 2015; 60% by 2020.</p>	2015, 2020	<p>Ongoing</p> <ul style="list-style-type: none"> For 15% of City facilities and buildings, 2/3 of monthly trash disposal is mixed recycling. Mixed recycling program has been expanded at three City facilities. Waste audits and staff trainings have been conducted at ten City facilities. In addition, staff-produced employee training videos on Basic Recycling, Zero Waste Events, E-Waste Disposal, and Comprehensive Recycling are shown at New Employee Orientation. City did not meet 50% diversion goal by 2015. In 2015, City facilities had 31% diversion rate. The 2016 diversion rate was 30% but staff is working on improving diversion at City facilities.
	<p>46. Electronic processes</p> <p>Reduce printing with more electronic processes.</p>	2015	<p>Complete</p> <ul style="list-style-type: none"> Procedures are in place (e.g., SharePoint collaboration and Questys document review system). Replacing hard document printing with electronic measures is covered in City employee trainings.

Emission Reduction Strategies			
	Climate Plan Strategy	Target	Implementation/ Status (2013-2017)
	<p>47. City coordination with region</p> <p>Continue coordination with County and cities on waste management.</p>	2020	<p>Ongoing</p> <p>City continues to coordinate on regional waste management initiatives including:</p> <ul style="list-style-type: none"> • Tajiguas Landfill Resource Recovery Project for additional diversion and recyclables recovery (see CAP #48 and #50); • Operation Medicine Cabinet; • Household Hazardous Waste collection; and, • Attending Local Task Force meetings as required by AB 939.
	<p>48. Waste-to-energy facility at landfill</p> <p><i>Incorporates EIR MM PU-1/GP Policy ER22.4</i></p> <p>Partner with Santa Barbara County and other agencies to establish conversion technology at Tajiguas Landfill.</p>	2015	<p>Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class II Public Utilities Measure #22, Waste-To-Energy.
Communitywide Measures			
	<p>49. Communitywide waste diversion</p> <p>Achieve 75% waste diversion from landfill disposal by 2020.</p>	2020	<p>Ongoing</p> <p>The City has achieved the following communitywide diversion rates, in conformance with State-mandated diversion targets:</p> <ul style="list-style-type: none"> • State formula: 72% (2014) • Curbside diversion: 41% (2016)
	<p>50. Regional materials recovery facility (MRF)</p> <p><i>Incorporates EIR MM PU-1/GP Policy ER22.4</i></p> <p>Continue pursuing establishing regional MRF.</p>	2015	<p>Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class II Public Utilities Measure #22, Waste-To-Energy. A component of this project would modify existing operations to add a MRF.
	<p>51. Waste audit information for business</p> <p><i>Incorporates EIR MM PU-1/GP Policy ER22.5</i></p> <p>Continue conducting business waste audits with Green Business Program.</p>	2015	<p>Complete and Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class II Public Utilities Measure #24, Increase Diversion. • City staff continues to conduct business waste audits and contact businesses to encourage waste reduction and recycling.
	<p>52. Recycling education campaigns</p> <p><i>Incorporates EIR MM PU-1/GP Policy ER22.5</i></p> <p>Continue to develop outreach and incentive programs for recycling.</p>	2015	<p>Complete and Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class II Public Utilities Measure #24, Increase Diversion. • The City has developed and aired multiple radio and television spots, banner ads, vignettes (<i>Inside Santa Barbara</i>) to promote business waste recycling, services available to customers under the franchise agreement with MarBorg, electronic waste collection events, cell phone & battery collection, and bulky waste collection/illegal dumping prevention.
	<p>53. Single-use packaging reduction</p> <p><i>Incorporates EIR MM PU-1/GP Policy ER22.5</i></p> <p>Consider ordinance options to discourage single use materials and reduce packaging.</p>	2015	<p>Complete and Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class II Public Utilities Measure #24, Increase Diversion. • The State (CalRecycle's) Manufactures Challenge is focused on product manufacturers and brand owners collectively and voluntarily achieving a 50% reduction in packaging disposed to landfills by 2020.

Emission Reduction Strategies			
	Climate Plan Strategy	Target	Implementation/ Status (2013-2017)
	<p>54. Business and Multi-Family Recycling Ordinance <i>Incorporates EIR MM PU-1/GP Policy ER22.5</i>  Develop a City ordinance requiring recycling in businesses and multiple-family residences compliant with the State's Mandatory Commercial Recycling Law (AB 341).</p>	2015	<p>Complete and Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class II Public Utilities Measure #24, Increase Diversion.
	<p>55. Construction waste hauling program enforcement <i>Incorporates EIR MM PU-1/GP Policy ER22.5</i> Increase enforcement of City's Unscheduled Collection Ordinance to ensure construction debris is recycled.</p>	2015	<p>Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class II Public Utilities Measure #24, Increase Diversion.
	<p>56. Increased recyclables sorting <i>Incorporates EIR MM PU-1/ GP Policy ER22.4 and 22.5</i>  Pursue increased waste diversion by increased recyclables sorting (through waste management contracts or materials recovery facility [MRF]).</p>	2015	<p>Complete and Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class II Public Utilities Measures #22, Waste-To Energy and #24, Increase Diversion.
	<p>57. School waste diversion  Continue program with district schools to establish recyclables and food scrap collection.</p>	2015	<p>Complete and Ongoing</p> <ul style="list-style-type: none"> • Recycling programs are implemented at all schools in the Santa Barbara Unified School District (SBUSD). • All junior high and high school cafeteria kitchens and several elementary schools in the SBUSD collect food scraps.
	<p>58. Materials reuse/recycling for builders <i>Incorporates EIR MM PU-1/GP Policy ER22.5</i>  Establish data/outreach connecting builders to salvage/recycled building materials.</p>	2015	<p>Complete and Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class II Public Utilities Measure #24, Increase Diversion.
	<p>59. Building space guidelines for waste  Update City's space enclosure guidelines for new development.</p>	2015	<p>Complete</p> <ul style="list-style-type: none"> • The revised Waste Enclosure Guide was completed in June of 2016 and released to relevant parties such as architects, other jurisdictions, and the State.
	<p>60. Additional recycling materials <i>Incorporates EIR MM PU-1/GP Policy ER22.5</i> Pursue measures to add more materials to recycling/organics diversion.</p>	2020	<p>Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class II Public Utilities Measure #24, Increase Diversion.
	<p>61. Additional green waste capacity Pursue measures to increase local green waste capacity.</p>	2020	<p>Ongoing</p> <ul style="list-style-type: none"> • City collection services provide for up to 192 gallons of green waste collection at no additional charge for single-family residential customers.

Emission Reduction Strategies			
	Climate Plan Strategy	Target	Implementation/ Status (2013-2017)
	62. Additional recycling in public places Install additional recycling containers in public parks and streets.	2020	Ongoing <ul style="list-style-type: none"> In 2015, the City approved a new Public Container Master Plan, including a repair and replacement schedule for public trash and recycling containers throughout the City. The program maintains the current inventory of trash and recycling containers. Additional containers are added in response to resident requests based on need and funding. Currently approximately 22 new containers are placed in parks annually.
	63. Additional composting Work with public and private entities to increase composting.	2020	Ongoing <ul style="list-style-type: none"> The commercial food scraps composting program has over 200 participating businesses. Food scraps collection service captured over 9,000 tons of food scraps since FY 2013.
	64. Single-use bag reduction Implement ordinance to regulate distribution of single-use bags.	2015	Complete <ul style="list-style-type: none"> See MMRP Class II Public Utilities Measure #24, Increase Diversion.
Water Conservation Strategies Water supply facilities use energy for water transport and processing. The State Water Project is the largest single user of energy in California, particularly because of large energy requirements to pump water over mountains. Local water processes require less energy, but can be cumulatively substantial. Water conservation saves electricity and thus reduces carbon emissions; it also benefits the community with lower costs and more options for supplying water needs. There are multiple efforts to conserve water use and reduce associated energy use in Santa Barbara over the past several decades. The City's water conservation efforts are currently "extraordinary" triggered by Stage 3 drought conditions declared by City Council on May 5, 2015. The CAP measures continue existing the City's programs.			
City Operations and Facilities			
	65. City facilities – water conservation Continue upgrading equipment and expanding water-conserving practices.	Ongoing	Completed <ul style="list-style-type: none"> Financial assistance provided to the Waterfront Department to convert remodeled restroom toilets to use recycled water. Ongoing <ul style="list-style-type: none"> City Departments continue to reduce water use including equipment and operations changes at various park and recreation facilities. Assisting with extraordinary conservation measures at City facilities with technical assistance, signage, and incentives.

Emission Reduction Strategies			
	Climate Plan Strategy	Target	Implementation/ Status (2013-2017)
Communitywide Measures			
	<p>66. Community water conservation Expand water conservation measures, including services to water customers; public information and education; landscape and building design standards; and regional coordination.</p>	<p>2015, Ongoing</p>	<p>Ongoing</p> <ul style="list-style-type: none"> Continuing to work with the County's Water Agency in implementing the regional water efficiency program including outreach, advertising, workshops, regional website, school programs, awards, and drought forums. City's Drought Information and Water Conservation websites provides extensive information and educational resources. Continued high demand for free Water Checkup service and landscaping rebates for residents and businesses. CII Survey and Incentive Program for large commercial, institutional, and industrial users to identify cost effective retrofits and upgrades. Ongoing interagency coordination, e.g., with State Water Resources Control Board; County Water Agency; area cities and water districts; Cachuma Operations and Maintenance Board (COMB), Integrated Regional Water Management Plan (IRWMP) for Santa Barbara County; agency consultations during drought.
	<p>67. Recycled water Expand City programs for use of recycled water and work towards reducing need for blending potable water.</p>	<p>2020, 2030</p>	<p>Completed</p> <ul style="list-style-type: none"> In fall 2015, the City began distributing recycled water from the newly constructed Tertiary Treatment facility; thus eliminating potable blending. City initiated a feasibility study of potable reuse; study expected completed in May 2017. <p>Ongoing</p> <ul style="list-style-type: none"> Continuing to connect new sites to the recycled water system including adjacent potable customers and adjacent development projects.
✓	<p>68. On-site water storage and reuse Identify guidelines for cisterns and grey water use.</p>	<p>2020</p>	<p>Completed</p> <ul style="list-style-type: none"> Water Division worked with Community Development Department on the New Zoning Ordinance to allow cisterns and rain barrels in the setback. Developed permit-free simple graywater system guidelines and registration form. Incorporated rainwater harvesting gardens into landscape rebate. Eligible materials include rocks and mulch for basins and swales. <p>Ongoing</p> <ul style="list-style-type: none"> City guidelines for laundry to landscape systems, simple systems, and permitted gray water are being highlighted during drought. Ongoing hands-on workshops and rebates for laundry to landscape systems. Ongoing Rainwater Harvesting 101 and Graywater 101 classes.

Adaptation Strategies			
	Climate Plan Strategy	Target	Implementation/Status (2013-2016)
<p>Adaptation Planning Strategies</p> <p>Because high atmospheric carbon dioxide levels are already in place, climate changes are projected to occur over the coming decades despite efforts made now to reduce the rate of carbon emissions. Existing community and City programs that benefit planning for climate adaptation include emergency plans, hazard mitigation plans, habitat restoration, and safety element policies. The following strategies identify further measures to plan for adaptation to future climate changes.</p>			
	<p>69. Planning for adaptation</p> <p>Timeline:</p> <ul style="list-style-type: none"> • Include an est. timeline for climate changes in CAP. • Periodically update timeline as part of the General Plan AMP, and consider climate change in designing projects for CIP list. <p>Monitoring, analysis, planning:</p> <ul style="list-style-type: none"> • Monitor local changes and analyze effects. • Conduct vulnerability analysis. • Identify options and priorities, and implement adaptation planning measures. 	<p>2020, 2030</p>	<p>Complete</p> <ul style="list-style-type: none"> • Timeline of climate change effect included in 2012 CAP (Fig. ES-2). An updated timeline of climate change effects prepared in 2017. • Preliminary Sea Level Rise (SLR) Vulnerability Assessment included in 2012 CAP. • UCSB Bren Students conducted City of SB SLR Vulnerability Assessment in 2015. • Sea Grant's 2017 Santa Barbara Area Coastal Ecosystem Vulnerability Assessment (SBA CEVA) study forecasts local climate changes (sea level rise, flooding, erosion, temperature) and studies the effects on local coastal ecosystems (beaches, wetland, and watersheds). • Modeling of coastal hazards due to SLR up to 2100 prepared by ESA and the USGS Coastal Storms Modeling System (CoSMoS). <p>Ongoing</p> <ul style="list-style-type: none"> • National Oceanic and Atmospheric Administration (NOAA) tide gauge provides ongoing monitoring of sea level changes. • Capital improvement projects consider climate change issues as part of project design (e.g. sea level). <p>In Progress</p> <ul style="list-style-type: none"> • City received grant funds from the California Coastal Commission (CCC) in 2016 to prepare a Sea Level Rise Adaption Plan.

Adaptation Strategies			
	Climate Plan Strategy	Target	Implementation/Status (2013-2016)
	<p>70. Coordination of climate planning efforts</p> <p>Continue to coordinate climate-planning efforts:</p> <ul style="list-style-type: none"> • Coordinate monitoring, analysis, adaptation planning among departments, agencies, community • Team with educational institutions to evaluate climate information; develop more detailed analysis of local Santa Barbara changes. • Pursue grant funding for climate studies and adaptation planning and projects • Establish public information mechanisms for climate change and adaptation planning 	Ongoing	<p>Complete</p> <ul style="list-style-type: none"> • Update to the Multi-Jurisdictional Hazard Mitigation Plan (2017). • Multi-agency Goleta Slough SLR and management study (2015). • USGS informational presentation of CoSMoS results to internal city staff (2017). <p>Ongoing</p> <p>Coordination:</p> <ul style="list-style-type: none"> • City’s Council Sustainability Committee review of sustainable facilities and operations projects. • Multi-agency Santa Barbara County, Goleta and Carpinteria SLR coastal hazards modeling. • FEMA’s update to coastal flood risk maps. • The Nature Conservancy’s (TNC) Coastal Resilience Network. <p>Teaming with educational institutions:</p> <ul style="list-style-type: none"> • See CAP Strategy #69 • City participates in USC Sea Grant CA Coastal Impacts Project webinars and workshops. <p>Grant funding: See CAP Strategy #69.</p> <p>Public Information:</p> <ul style="list-style-type: none"> • The City’s Sustainability and LCP Update web page. • TNC’s Coastal Resilience and USGS CoSMoS web pages (displays coastal hazards modeling).
Emergency Preparedness Strategies			
	<p>71. Emergency response strategies</p> <p>Incorporate climate change effects into emergency response strategies.</p>	2015	<p>No Budget or Work to Date</p> <ul style="list-style-type: none"> • The City’s Emergency Management Plan (2013) focuses on potential large-scale disasters and includes assessments of threats from existing flooding, wildfire, and landslides hazards, which could be exacerbated by climate change. It does not specifically incorporate climate change effects but, given there is no history of large-scale climate change induced disasters in the City, it may be premature to incorporate this information at this time.
	<p>72. Emergency workforce</p> <p>Work with region to ensure essential workers are available for disaster response.</p>	2015, Ongoing	<p>Complete</p> <ul style="list-style-type: none"> • Cottage Hospital workforce housing project established housing within the City for hospital employees. <p>No Budget or Work to Date</p> <ul style="list-style-type: none"> • No regional or City efforts toward ensuring essential workers for disaster response.

Adaptation Strategies			
	Climate Plan Strategy	Target	Implementation/Status (2013-2016)
	<p>73. Public education for emergencies</p> <p>Promote public education on emergency preparedness to enhance community resilience.</p>	2015, Ongoing	<p>Complete and Ongoing</p> <ul style="list-style-type: none"> • Regular Community Emergency Response Team (CERT) classes held. • Listos Day basic emergency and disaster readiness program for Spanish-speaking populations held in collaboration with FEMA. • Office of Emergency Services (OES) web page includes emergency plans, videos, Get Ready Santa Barbara Newsletter (also sent to all City employees and through social media) and other resources. • City is a partner in the Aware and Prepare program to strengthen community disaster resiliency. • City participates in the Nextdoor private social network to improve communication and share City information.
	<p>74. People with disabilities</p> <p>Update emergency response plans to address special needs of people with disabilities.</p>	2015, Ongoing	<p>Complete</p> <ul style="list-style-type: none"> • City emergency response plans include provisions for people with disabilities. • Provisions to be incorporated into Advanced CERT Classes.
	<p>75. Community resilience planning</p> <p>Participate in community resiliency planning process to improve initial response and relief, and later recovery. Develop:</p> <ul style="list-style-type: none"> • Maps and inventories of relief resources. • An outline for development of neighborhood plans. • Outline of additional community actions or projects (e.g., communications system improvement). <p>Plan Process:</p> <ul style="list-style-type: none"> • Conduct resilience planning as a broad, cross-sector, coordinated effort. 	2020	No Budget or Work to Date
Wildfire, Flooding, Water Quality Strategies			
	<p>76. Limit residential development in high fire hazard areas</p> <p>Further limit residential development in high fire hazard areas with incentives and/or transfer of development rights.</p>	2015	<p>Complete</p> <ul style="list-style-type: none"> • General Plan and Zoning map updates (2011-12) reflected no density increases in high fire hazard areas. <p>No Budget or Work to Date</p> <ul style="list-style-type: none"> • Incentives/transfer of development rights.
	<p>77. Fire prevention and creek restoration</p> <p>Coordinate fire prevention and creek protection planning through development of best practices.</p>	2015	<p>Ongoing</p> <ul style="list-style-type: none"> • Ongoing coordination between departments. <p>In Process</p> <ul style="list-style-type: none"> • City efforts are underway to update best practices guidance for future projects.

Adaptation Strategies

Climate Plan Strategy	Target	Implementation/Status (2013-2016)
<p>78. Water system improvements for firefighting</p> <p><i>Incorporates EIR RM Haz-3/ GP Policy S44</i></p> <p>Evaluate potential water system improvements to assist emergency response and incorporate feasible measures into the CIP.</p>	Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> See MMRP Class III Hazards Measure #10, Water System Improvements for Fire Fighting.
<p>79. Private water supplies for firefighting</p> <p><i>Incorporates EIR RM Haz-3/ GP Policy S45</i></p> <p>Promote and assist owners in high fire hazard areas to install private emergency water supplies, consider expedited permit review.</p>	2015, Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> See MMRP Class III Hazards Measure #10, Private Water Supplies for Fire Fighting.
<p>80. Floodplain mapping update</p> <p>Update Flood Insurance Maps (FIRM) floodplain boundaries for Special Flood Hazard Area maps and incorporate sea level rise.</p>	2020	<p>Complete</p> <ul style="list-style-type: none"> Federal Emergency Management Agency (FEMA) issued updated existing floodplain hazard maps in 2015. <p>In Progress</p> <ul style="list-style-type: none"> FEMA is working on a study to update coastal flood hazards with new technology and data collected since 1983 (2018).
<p>81. Creek resources and water quality</p> <p><i>Incorporates EIR RM Hydro-1/ GP Policy ER19.4 and EIR RM Hydro-2/ GP Policy ER19.5</i></p> <p>Encourage development and infrastructure consistent with City policies addressing storm water, watersheds, creeks, water quality, open space, public access/awareness. Develop:</p> <ul style="list-style-type: none"> Comprehensive creek action plan Master drainage plan Beach water quality improvement Watershed action plans 	2025, Ongoing	<p>Complete</p> <ul style="list-style-type: none"> Laguna Watershed Study Final Project Report (2013). <p>Ongoing</p> <ul style="list-style-type: none"> Development projects address creek and water quality issues where applicable. See EIR MMRP Class III Hydrology and Water Quality Measures #13 Beach Water Quality Improvement and #14 Watershed Action Plans. <p>No Budget or Work to Date</p> <ul style="list-style-type: none"> Comprehensive Creek Action Plan. Master Drainage Plan. Watershed Action Plans for Mission, Sycamore, and Arroyo Burro watersheds.

Adaptation Strategies			
	Climate Plan Strategy	Target	Implementation/Status (2013-2016)
Coastal Vulnerability and Adaptation Planning Strategies			
	<p>82. Monitoring, data collection, and analysis of sea level rise <i>Partially incorporates EIR MM Geo-1a and RM Geo-1a/ GP Policies S23-25, S51</i></p> <p>Develop the following data and analysis to support adaptation planning:</p> <ul style="list-style-type: none"> • Protect ongoing functioning of NOAA tide gauge. • Establish transects for regular monitoring of sea cliff erosion. • Establish winter and summer beach profiles for annual monitoring. • Obtain topo and develop projected future flooding/inundation maps. 	2020	<p>Complete</p> <ul style="list-style-type: none"> • Tide gauge functioning is controlled by the National Oceanic and Atmospheric Administration (NOAA). • Transects for regular monitoring of sea cliff erosion were established in the United States Geological Survey Coastal Storm Modeling System (CoSMoS). <p>Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class II Geological Conditions Measures #7 Updated Bluff Retreat Policy & Review Guidelines and Class II #8 Shoreline Management Plan. <p>No Budget or Work to Date</p> <ul style="list-style-type: none"> • Annual winter and summer beach profile surveys.
	<p>83. Sea level rise (SLR) risk assessment and vulnerability analysis <i>Partially incorporates EIR MM Geo-1b/ GP Policy S54</i></p> <p>Conduct periodic studies of future sea level rise effects on storm flooding, beach/ cliff erosion, inundation, and ground water.</p>	2020	<p>Ongoing</p> <ul style="list-style-type: none"> • See CAP Strategy #69 Planning for Adaptation and MMRP Class II Geological Conditions Measures #7-8 and Class III #7.
	<p>84. Incorporate adaptation in development</p> <p>Incorporate climate adaptation in development and public facility projects.</p> <ul style="list-style-type: none"> • Estimate useful life of projects and incorporate adaptation into project siting/design. • Prepare development adaptation guidelines. 	2015, Ongoing	<p>Complete</p> <ul style="list-style-type: none"> • The Airport Master Plan update considers adaptation measures addressing future SLR and increased airfield flooding. <p>Ongoing</p> <ul style="list-style-type: none"> • Development permitting considers effects of SLR per CCC SLR Policy Guidance. <p>In Progress</p> <ul style="list-style-type: none"> • The Local Coastal Plan (LCP) update proposes programs to incorporate adaptation in development.
	<p>85. Sea level rise adaptation (2020) <i>Incorporates EIR MM Hydro-1a/ GP Policy ER4.2</i></p> <p>Identify policy options, costs, consequences for addressing SLR adaptation, including:</p> <ul style="list-style-type: none"> • Techniques to minimize wave damage. • Review SLR hazard to public facilities/utilities. • Consider adaptation measures. • Coordinate with private owners on techniques for structural adaptation/design. 	2020	<p>In Progress</p> <ul style="list-style-type: none"> • See CAP Strategy #69 and MMRP Class II Hydrology & Water Quality Measure #12 Sea Level Rise.

Adaptation Strategies

	Climate Plan Strategy	Target	Implementation/Status (2013-2016)
	<p>86. Future inundation Consider options for adaptation to future permanent inundation due to sea level rise.</p> <ul style="list-style-type: none"> • Mandatory rolling setbacks over time. • Restricting rebuilding damaged structures. • Relocation policies & funding/tax incentives. • Evaluating cost, impact, lifespan of seawall along Cabrillo Blvd & Shoreline Dr. 	2020	<p>In Progress</p> <ul style="list-style-type: none"> • See CAP strategy #69 and #85 Sea Level Rise Adaptation. Proposed adaptation plan will consider various options.
	<p>87. Bluff retreat guidelines <i>Partially incorporates EIR MM Geo-1a and RM Geo-1a/ GP Policies S23-25, S51</i></p> <ul style="list-style-type: none"> • All development shall consider effects of bluff retreat for life of project including climate change. • Update sea cliff retreat formula (SE, LCP). • Prepare guidelines for development on sea cliffs; incorporate in LCP. 	2015	<p>Complete</p> <ul style="list-style-type: none"> • Sea cliff retreat formula updated with City Master Environmental Assessment (MEA) in 2009 and Safety Element update (2013). <p>Ongoing</p> <ul style="list-style-type: none"> • Development permitting applies policies. <p>In Progress</p> <ul style="list-style-type: none"> • LCP Update considering updated policies. See MMRP Class II Geological Conditions Measure #7.
	<p>88. Cliff erosion policies <i>Incorporates EIR MM Geo-1a and RM Geo-1a/ GP Policies S23-25, S51</i></p> <p>Consider additional policies as part of future adaptation planning:</p> <ul style="list-style-type: none"> • Identify policy for relocation of structures as setback distance from cliff edge decreases. • Identify further policies for control of drainage to reduce potential for cliff failure. 	2020	<p>In Progress</p> <ul style="list-style-type: none"> • See MMRP Class II Geological Conditions Measures #7-8, Class III #7 and Hydrology & Water Quality Measure Class II #12.
	<p>89. Shoreline management plan <i>Incorporates EIR MM Geo-1b/ GP Policy S54</i></p> <p>Develop plan to manage/mitigate sea level rise impacts to public facilities and private property.</p> <ul style="list-style-type: none"> • Protection of sand transport/ replenishment • Natural bluff stabilization/erosion control • Non-intrusive methods for sand retention • Funding for beach, bluff retreat 	2020	<p>In Progress</p> <ul style="list-style-type: none"> • See MMRP Class II Geological Conditions Measure #8.

Adaptation Strategies			
	Climate Plan Strategy	Target	Implementation/Status (2013-2016)
	<p>90. Beach erosion policies Consider policies as part of adaptation planning:</p> <ul style="list-style-type: none"> • Allow beaches to gradually retreat • Utilize beach nourishment and sand retention structures to maintain beach width • Selective removal of back beach barriers to allow beaches to migrate landward 	2020	<p>In Progress</p> <ul style="list-style-type: none"> • See MMRP Class II Geological Conditions Measure #8.
	<p>91. Coastal ecosystems study Seek grant funding for joint regional study of vulnerability & adaptation of coastal ecosystems to climate change effects.</p>	2020	<p>Complete</p> <ul style="list-style-type: none"> • Sea Grant's Santa Barbara Area Coastal Ecosystems Vulnerability Assessment (SBA CEVA) study forecasts local climate changes (sea level rise, flooding, erosion) and studies the effects on local coastal ecosystems (beaches, wetland, and watersheds).
Public Services Strategies			
	<p>92. Water supply planning <i>Partially incorporates EIR RM PU-1/ GP Policy ER15</i> Assess effects of climate change on water supply as part of Long Term Water Supply Plan (LTWSP) updates; track impacts.</p>	2015, Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class III Public Utilities Measure #23, Long-Term Water Supply Plan. • LTWSP increased the Critical Drought Period from 5 years to 6 years, consistent with State guidance to plan for 20% increase in frequency and duration of drought periods. • The City tracks changes in hydrology assumptions per State Department of Water Resources CALSIM computer modeling of State Water reliability. • The California Department of Water Resources asserts that warmer temperatures will cause snow pack to melt faster, making it more difficult to store and use. By the end of this century, the Sierra snowpack is projected to experience a 48-65 percent loss from the historical April 1st average, meaning less water will be available for Californians to use. The California Water Plan is currently being updated, and will be available in 2018.
	<p>93. Regional cooperation - water supply Continue work with regional programs & projects to improve water supply reliability.</p>	Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> • The City continues to be an active participant in the Integrated Regional Water Management (IRWM) process for the Santa Barbara County region. • Supplemental water deliveries are coordinated on behalf of the City and other members by Central Coast Water Authority (CCWA). • Work continues on the Regional Water Efficiency Program, including outreach, advertising, workshops, regional website, school programs, awards, and drought forums. • Desalination reactivation provides another potential area for regional coordination.
	<p>94. Local food cultivation Support local food cultivation/ marketing including:</p> <ul style="list-style-type: none"> • Farmers markets • Gardener education • Food scraps recovery/composting 	2030	<p>Ongoing</p> <ul style="list-style-type: none"> • Three farmers market locations are permitted in the City (State Street, Cota Street, and Coast Village Road). • Water Resources participates in training green gardeners on water wise landscaping and irrigation products and processes. • Environmental Services implements food scraps recovery, and composting programs.

Adaptation Strategies			
	Climate Plan Strategy	Target	Implementation/Status (2013-2016)
	<p>95. Community gardens Support establishment of community gardens.</p> <ul style="list-style-type: none"> • Establish a program for vacant/underutilized properties for temporary community gardens. • Provide infrastructure for community gardens. • Work with school district to develop organic gardening program. 	2030	<p>Ongoing</p> <ul style="list-style-type: none"> • Santa Barbara City College Center for Sustainability in partnership with the Orfalea Foundation’s School Food Initiative creates and maintains a School Gardens Program. <p>No Budget or Work to Date</p> <ul style="list-style-type: none"> • Program or infrastructure for public and private food gardens.
	<p>96. Regional agriculture Support regional efforts to expand local food sources and directing local food to schools, grocers, and restaurants.</p>	Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> • The City’s legislative platform supports agriculture. • The City adopted the Healthy Eating Active Living (HEAL) resolution in 2014 and participated in the Santa Barbara County Food Action Plan (2016 Final Report).
Biological Resources Strategies			
	<p>97. Wildlife, coastal, & native plan habitat protection <i>Incorporates EIR MM Bio-1a and 1b/ GP Policies ER12, ER12.1, EIR MM Bio-2b and RM Bio-2/ GP Policies ER12.4 (c, d) and ER12.5, EIR RM Bio-3a/ GP Policy ER12.2, EIR RM Bio-3b/ GP Policy ER12.3(a, b).</i></p> <p>Protect remaining native plant/wildlife habitats.</p> <ul style="list-style-type: none"> • Map and designate habitats • Develop multi-use plan for coast/ habitat restoration • Protect/restore coastal bluff habitat • Plan for native species habitat • Protect riparian woodlands 	2020, Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class II Biological Resources Measures #3 Upland Habitat and Species Protection, #5 Riparian Habitat and Species Protection, Class III #3 Creeks, Riparian Habitat and Species Protection, and Class III #4-5 Coastal Habitat and Species Protection.
	<p>98. Open space connectivity and trails <i>Incorporates EIR MM Vis-1/ GP Policy OP1.2, EIR MM Vis-1/ GP Policy OP1.3, EIR MM Vis-1/ General Plan OP2.1 and EIR MM Vis-2/ GP Policy OP2.3</i></p> <p>Protect contiguous open space and connectivity.</p> <ul style="list-style-type: none"> • Identify key open spaces; implement actions to preserve. • Manage trails for passive recreation and habitat corridors. • Site development to preserve open space and wildlife corridors. • Coordinate with agencies to protect regional open space. 	2020, Ongoing	<p>Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class II Open Space and Visual Resources Measure #15-17 and #21 Preservation of Regional Open Space. • Parks and Recreation and Creeks Division manages trails along creeks and other natural settings for passive recreation and habitat protection.

Adaptation Strategies			
	Climate Plan Strategy	Target	Implementation/Status (2013-2016)
	<p>99. Creek setbacks, protection, restoration</p> <p><i>Incorporates EIR MM Bio-2a and 2b/ GP Policies ER21.3, ER21.4 and EIR MM Bio-2c/ GP Policy ER21.1(a)</i></p> <p>Protect and restore creeks and riparian habitat in conjunction with climate adaptation planning for biological, water quality, open space, flood control values.</p> <ul style="list-style-type: none"> • Develop creek setback standards • Establish design guidance to development near creeks • Prohibit placement of concrete or piping of major creeks (except for repair or public safety), and remove concrete when feasible. • Restore or daylight 0.5 mile of surface drainages by 2030. 	<p>2020, Ongoing</p>	<p>Ongoing</p> <ul style="list-style-type: none"> • See MMRP Class II Biological Resources Measures #4-6 Creeks, Riparian Habitat and Species Protection.
Local Economies Strategies			
	<p>100. Coordinate with local business</p> <p>Include in adaptation planning local industries that may be affected by climate change.</p>	<p>2015, Ongoing</p>	<p>In Progress</p> <ul style="list-style-type: none"> • See CAP Strategy #69, #84, and #85. Broad public outreach, including the business community, will be conducted with a Sea Level Rise Adaptation Plan. However, there is currently no direct City activity broadly addressing climate change adaptation with local industries. • Several existing programs and planning efforts have contact with businesses and provide opportunities to address this issue in the future including Southern California Energy Efficiency Program (SCEEP), the Green Business Program, and Water Conservation outreach.