

## Climate Action Plan Implementation 2014 Status Report

The City of Santa Barbara Climate Action Plan was adopted in September 2012 to: (1) reduce community carbon emissions that contribute to global climate change; and (2) plan for community adaptation to climate change effects.

The plan horizon extends through the year 2030. As funding becomes available in the City budget or from grants, plan implementation is undertaken by City department programs and operations, through joint efforts with private sector businesses or other agencies, and through the permitting process for new development. The Climate Plan directs that the monitoring and reporting of plan implementation and status be coordinated with General Plan Adaptive Management Program reporting.

Implementation status indicates that City facility operations and communitywide efforts are on track toward Climate Plan objectives.

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

| Emission Reduction Strategies  |                  |   |
|--|------------------|---|
| Climate Plan Strategy  | Target Year      | Implementation/ Status (2013-2014)  |
| <b>Energy Efficiency and Green Building</b>  |                  |   |
| <i>City Facilities</i><br><b>1-Energy efficiency upgrades</b><br>Retrofit municipal systems with energy efficient equipment and operations.<br><i>(PW Energy)</i>  | Ongoing program. | <ul style="list-style-type: none"> <li>• City facility upgrades include shared printing; computer servers; workstation power off; energy efficiency mgmt info sys; parking lot lighting; Airline terminal; numerous City HVAC and other building energy upgrades.</li> <li>• Marina One electricity usage and Ice House efficiency upgrade pending FY15.</li> </ul> |
| <i>City Facilities</i><br><b>2-Recreational field lighting</b><br>Energy efficient lighting at ball fields.<br><i>(PW Energy)</i>  | 2015             | <ul style="list-style-type: none"> <li>• Dwight Murphy and Cabrillo Ball field projects completed 2012.</li> <li>• Pershing Park construction starts Sept 2014.</li> </ul>  |
| <i>Community Measure</i><br><b>3. Energy-efficient buildings–voluntary</b><br>Encourage new construction consistent with green building policies for energy efficiency.<br><i>(PW Energy, CDD Bldg &amp; Planning)</i> | Ongoing          | <ul style="list-style-type: none"> <li>• Community work continues with participation in So. Co. Energy Efficiency Partnership, County <i>emPower</i> &amp; Green Business programs.</li> <li>• Updated 2013 energy efficiency standards are in place for new buildings &amp; appliances.</li> </ul>   |
| <i>Community Measure</i><br><b>4. Energy-efficient buildings: further actions</b><br>Additional outreach, incentives, requirements.<br><i>(CDD Planning &amp; Bldg, PW Energy)</i>                                     | 2025             | <ul style="list-style-type: none"> <li>• Expanded activities not yet initiated.</li> </ul>  |
| <i>Community Measure</i><br><b>5. Green building</b><br>Promote use of sustainable building & landscaping materials and establish incentives.<br><i>(PW Water, CDD Planning &amp; Bldg)</i>                            | Ongoing          | <ul style="list-style-type: none"> <li>• City program provides advice &amp; rebates for low-water landscaping/ irrigation retrofits; City works with SB Green Building program.</li> <li>• Building permit process enforces State green building standards.</li> <li>• Project example: 296 Schulte Way residence.</li> </ul>                                       |

| Emission Reduction Strategies  |             |  |
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| Climate Plan Strategy  | Target Year | Implementation/ Status (2013-2014)   |
| <b>Renewable Energy</b>  |             |  |
| <i>City Facilities</i><br><b>6. Hydroelectric plant re-commissioning</b><br><i>(PW Water)</i>  | 2015        | <ul style="list-style-type: none"> <li>Land acquired; drawings complete; parts ordered.</li> <li>Projected installation: Dec. 2014.</li> </ul>   |
| <i>City Facilities</i><br><b>7. Solar photovoltaic project at Airport</b><br>Parking area project; power purchase agreement.<br><i>(Airport)</i>   | 2015        | <ul style="list-style-type: none"> <li>Proposal selected; power purchase agreement pending.</li> <li>Design - Fall 2015; Construction - Spring 2016.</li> </ul>  |
| <i>Community Measure</i><br><b>8. Community choice aggregation</b><br>Conduct feasibility study on bulk purchase or energy production from alternative sources.<br><i>(PW Energy)</i>  | 2015        | <ul style="list-style-type: none"> <li>The City has identified funds to contribute to County of Santa Barbara's feasibility study, taking place in 2015-2016.</li> </ul>   |
| <i>Community Measure</i><br><b>9. Alternative/advanced fuels</b><br>Support & implement AB 1007 goal for 20% non-petroleum fuel use by 2020; 30% by 2030.<br><i>(PW Energy, Transportation, CDD Planning)</i>  | 2020, 2030  | <ul style="list-style-type: none"> <li>City assisted development of regional electric vehicle (EV) readiness plan.</li> <li>Meetings held with organizations promoting EV, hydrogen infrastructure.</li> <li>Discussion of La Cumbre hydrogen station.</li> </ul>  |
| <i>Community Measure</i><br><b>10. Alternative fuel infrastructure</b><br>Expedited process for projects providing alternative fuel infrastructure.<br><i>(CDD Planning &amp; Bldg, PW Energy &amp; Transp, Fire)</i>  | 2015        | <ul style="list-style-type: none"> <li>Permit application &amp; expedited process established for EV charging stations.</li> <li>Few residential projects to date</li> <li>EV advisory statement provided to development project applicants.</li> <li>City installed EV charging stations</li> </ul>   |
| <i>Community Measure</i><br><b>11. Small wind generators</b><br>Study issues; develop siting standards.<br><i>(PW Energy, CDD Planning &amp; Bldg)</i>   | 2020        | <ul style="list-style-type: none"> <li>No budget or work started.</li> </ul>   |
| <i>Community Measure</i><br><b>12. Renewable energy technologies</b><br>Facilitate renewable energy with flexible design standards, streamlined permitting, incentives.<br><i>(PW Energy, CDD Planning &amp; Bldg)</i>   | 2020        | <ul style="list-style-type: none"> <li>City installed cogeneration plant at El Estero producing electricity from biogas &amp; heat. Unit powers up to 60% of plant electricity needs.</li> <li>Proposed Museum of Art &amp; Library projects would include a geothermal system.</li> <li>No work on standards, process, incentives.</li> </ul>                         |
| <i>Community Measure</i><br><b>13. Solar energy</b><br>Encourage photovoltaic arrays for new projects: <ul style="list-style-type: none"> <li><i>Multi-Family Residential (≥3 du)</i>: Minimum 2 kW system required where feasible.</li> <li><i>Small Residential (1-2 du)</i>: 300 SF roof area for future solar installation required if feasible.</li> <li><i>Commercial/industrial</i>: Minimum 5 kW per net new SF, or system providing 30% of average energy demand required.</li> </ul> <i>(CDD Planning &amp; Bldg, PW Energy)</i> | Ongoing     | <ul style="list-style-type: none"> <li>141 solar arrays installed in the community in 2013-14 with 712 kW of power on-line; estimated &gt;500 total systems in place.</li> <li>Roof space design provision is being applied on small residential projects.</li> <li>Photovoltaic provisions for multi-family/ commercial projects not consistently applied.</li> </ul> |

| Emission Reduction Strategies   |             |   |
|---|-------------|---|
| Climate Plan Strategy   | Target Year | Implementation/ Status (2013-2014)  |
| <b>Travel and Land Use</b>  |             |   |
| <p><i>City Facilities</i></p> <p><b>14. Fleet vehicles</b></p> <p>Transition City fleet vehicles to more alternative technologies/fuels with lower carbon emissions.<br/>(PW Transportation)</p>  | Ongoing     | <ul style="list-style-type: none"> <li>City fleet includes some electric vehicles (EV); hybrids; biodiesel, and ethanol vehicles.</li> </ul>  |
| <p><i>City Facilities</i></p> <p><b>15. City employee travel changes</b></p> <p>Programs to reduce employee commute and work-related vehicle trips.<br/>(PW Transportation, City Admin, other depts.)</p>   | Ongoing     | <ul style="list-style-type: none"> <li>City programs include: 9/80 work schedule; transit passes; carpool incentives/ information; vehicle share system across departments; loaner bicycles/ cars; telecommuting.</li> </ul>  |
| <p><i>Community Measure</i></p> <p><b>16. Mixed use land use policies</b></p> <p>Policies for smaller unit and density incentives to encourage workforce and affordable housing close to transit, services, employment.<br/>(CDD Planning with other Land Dev Team depts.)</p>  | 2015        | <ul style="list-style-type: none"> <li>Implementing activities include Growth Mgmt Ordinance/ Traffic Mgmt Strategy, AUD Ord.</li> <li>Net 58 housing units (incl. 50 affordable units) constructed in City in 2013.</li> <li>Estimated 450 proposed net new units in permitting process.</li> </ul>  |
| <p><i>Community Measure</i></p> <p><b>17. Sustainable neighborhood plans</b></p> <p>Neighborhood plans to enhance livability and accessibility, and reduce carbon footprint.<br/>(CDD Planning with other depts.)</p>   | 2020, 2030  | <ul style="list-style-type: none"> <li>City budget and work not yet initiated.</li> <li>Initial work on Mesa plan submitted from residents group in 2011.</li> </ul>  |
| <p><i>Community Measure</i></p> <p><b>18. Experimental development</b></p> <p>Establish permit process &amp; flexible standards on limited basis for alternative development materials &amp; techniques that reduce carbon.<br/>(CDD Planning &amp; Bldg with other LDT depts.)</p>   | 2015        | <ul style="list-style-type: none"> <li>Work not yet initiated on experimental permits process.</li> <li>Foam or hybrid foam/concrete materials permitted for a few projects (e.g., Conejo area).</li> <li>Discussions held on hay bale construction; green roofs &amp; cool roofs, and alternative utility techniques.</li> </ul>   |
| <p><i>Community Measure</i></p> <p><b>19. Complementary land uses</b></p> <p>Establish provisions to facilitate uses serving daily needs of neighborhoods and employment areas.<br/>(CDD Planning with other LDT depts.)</p>  | 2020        | <ul style="list-style-type: none"> <li>Work not yet initiated.</li> <li>New Zoning Ordinance work may support this program.</li> </ul>  |
| <p><i>Community Measure</i></p> <p><b>20. Facilitate Electric vehicle (EV) charging stations</b></p> <ul style="list-style-type: none"> <li>Install stations in City parking facilities</li> <li>Work with regional plan (sites, grants, outreach).</li> <li>Expedited permit procedures &amp; design guidance.</li> <li>Consider requiring EV pre-wiring; designating zones; requiring %parking with EV charging.</li> </ul> <p>(PW Energy &amp; Transportation, CDD Plan, Bldg)</p> | 2015        | <ul style="list-style-type: none"> <li>City installed eight EV charging stations; grant funding received for 6 more (FY15).</li> <li>Few residential projects to date.</li> <li>City assisted Regional EV Plan development.</li> <li>Application &amp; expedited permitting in place.</li> <li>Further design guidance for EV charging stations pending.</li> <li>Development projects receive EV advisories.</li> <li>No budget or work on ord. amendments.</li> </ul> |

| Emission Reduction Strategies  |                  |   |
|--|------------------|---|
| Climate Plan Strategy  | Target Year      | Implementation/ Status (2013-2014)  |
| <b>Travel and Land Use (continued)</b>   |                  |   |
| <p><i>Community Measure</i></p> <p><b>21. Pedestrian infrastructure</b></p> <p>Continue to implement improvements through development permitting and City programs (e.g., sidewalk infills;; corner curb access ramps; street crossing designs; pedestrian amenities).<br/><i>(PW Transportation, CDD PLanning &amp; Bldg)</i></p>   | Ongoing          | <ul style="list-style-type: none"> <li>• Improvements installed through development permitting or as funding available.</li> <li>• Examples: six new Pedestrian Refuge Islands, Crossing signs for school hours, LED retrofit of street lighting in Eastside Neighborhood.</li> <li>• Regional coordination through RTP/SCS; County Trails Committee.</li> </ul>  |
| <p><i>Community Measure</i></p> <p><b>22. Bicycle infrastructure improvements</b></p> <ul style="list-style-type: none"> <li>• Continue implementing improvements through development permitting &amp; City programs (on-street lanes, off-street paths, bike parking, etc.)</li> <li>• Agency coordination to expand South Coast routes.</li> </ul> <p><i>(PW Transportation &amp; CDD Planning &amp; Bldg)</i></p> | 2015,<br>Ongoing | <ul style="list-style-type: none"> <li>• Improvements installed through development permitting, or as funding becomes available.</li> <li>• Bicycle Master Plan update initiated in 2014; community outreach started.</li> <li>• Bike parking expansions proposed for Funk Zone, Canon Perdido downtown, MTD Center.</li> <li>• 8.6 million grant recently awarded by ATP for bike/ped improvements.</li> </ul> |
| <p><i>Community Measure</i></p> <p><b>23. Personal transportation</b></p> <p>Work with business and community to establish car sharing and bicycle sharing programs.<br/><i>(PW Transportation, City Admin)</i></p>  | 2020,<br>Ongoing | <ul style="list-style-type: none"> <li>• Initial discussions held with business and community groups.</li> <li>• City Mobility Coordinator to continue work.</li> </ul>   |
| <p><i>Community Measure</i></p> <p><b>24. Inter-model connections</b></p> <p>Continue to improve route connections between vehicles, transit, bicycles, &amp; pedestrians.<br/><i>(PW Transportation, CDD Planning &amp; Bldg)</i></p>   | Ongoing          | <ul style="list-style-type: none"> <li>• Improvements to inter-model connections installed occasionally through development permitting or City capital program.</li> <li>• Examples: New bus stop as part of Sandman project on upper State Street; bike/pedestrian component of roundabout &amp; bridge designs.</li> </ul>  |
| <p><i>Community Measure</i></p> <p><b>25. Optimize roadway capacity, flow, safety</b></p> <p>Continue to use and refine Intelligent Transp. System (ITS) techniques such as signal timing.<br/><i>(PW Transportation)</i></p>  | Ongoing          | <ul style="list-style-type: none"> <li>• Ongoing ITS use and refinements.</li> </ul>  |
| <p><i>Community Measure</i></p> <p><b>26. Mid-block traffic improvements</b></p> <p>Continue measures to improve mid-block flow, connectivity, &amp; alternative mode access (e.g., shared access &amp; parking, driveway spacing, median design, traffic controls, bus/bicycle/ pedestrian facilities).<br/><i>(PW Transportation, CDD Planning &amp; Bldg)</i></p>   | Ongoing          | <ul style="list-style-type: none"> <li>• Improvements installed through development permitting or City capital program.</li> <li>• Project examples: Sandman project (fewer driveways at wider spacing, median extension); 1330 Chapala (driveways redesigned, fewer curb cuts).</li> </ul>   |
| <p><i>Community Measure</i></p> <p><b>27. Regional transportation and transit</b></p> <p>Continue to improve regional transportation network efficiency through SCS planning.<br/><i>(PW Transportation, CDD Planning)</i></p>   | Ongoing          | <ul style="list-style-type: none"> <li>• Regional Transportation Plan/ Sustainable Communities Strategy adopted in 2013 with measures to improve regional network.</li> <li>• Highway 101 High-Occupancy Vehicle (HOV) Lane project under review.</li> </ul>  |

| Emission Reduction Strategies  |             |   |
|--|-------------|---|
| Climate Plan Strategy  | Target Year | Implementation/ Status (2013-2014)  |
| <b>Travel and Land Use (continued)</b>   |             |   |
| <i>Community Measure</i><br><b>28. Vehicle speeds</b><br>Advocate legislation to promote speed limits that consider street design, land uses, travel modes.<br><i>(PW Transportation, City Admin)</i>            | 2015        | <ul style="list-style-type: none"> <li>No work to date.</li> </ul>  |
| <i>Community Measure</i><br><b>29. Bus pull-out right of way</b><br>Advocate legislation to facilitate buses merging back into traffic.<br><i>(PW Transportation, City Admin)</i>                                | 2015        | <ul style="list-style-type: none"> <li>No work to date.</li> </ul>  |
| <i>Community Measure</i><br><b>30. Circulation improvements</b><br>Identify intersection deficiencies, improvements, funding, and install improvements.<br><i>(PW Transportation)</i>                            | Ongoing     | <ul style="list-style-type: none"> <li>Ongoing as part of Capital Improvements Program, transportation funding.</li> <li>Example: Las Positas/Cliff roundabout design/funding/ programming.</li> <li>Upcoming traffic mitigation program development.</li> </ul>    |
| <i>Community Measure</i><br><b>31. Transit passes</b><br>Establish program for employer-paid transit passes; work with region to include bus & rail.<br><i>(PW Transportation)</i>                               | Ongoing     | <ul style="list-style-type: none"> <li>Program providing passes for City employees continues as an incentive to reduce commute trips.</li> </ul>  |
| <i>Community Measure</i><br><b>32. Parking policies</b><br>Continue to refine parking policies in support of traffic management & reduced vehicle emissions.<br><i>(PW Transportation)</i>                       | Ongoing     | <ul style="list-style-type: none"> <li>No change to overall parking policies.</li> <li>Average Unit-Size incentive program implementation includes parking provisions.</li> </ul>   |
| <i>Community Measure</i><br><b>33. Car-pooling and telecommuting</b><br>Work with public/private interests and regional partners to promote carpooling/ telecommuting.<br><i>(PW Transportation, City Admin)</i> | Ongoing     | <ul style="list-style-type: none"> <li>No activity in 2013-14.</li> </ul>   |
| <i>Community Measure</i><br><b>34. Car-sharing</b><br>Work with public/private interests and regional partners to establish car-sharing programs.<br><i>(PW Transportation, City Admin)</i>                      | Ongoing     | <ul style="list-style-type: none"> <li>City staff is working with business and community interests to establish car sharing.</li> </ul>   |
| <i>Community Measure</i><br><b>35. Development impact fees</b><br>Conduct feasibility study of development fee to fund traffic improvements.<br><i>(PW Transportation, City Attorney)</i>                        | 2015        | <ul style="list-style-type: none"> <li>Development fee to fund periodic traffic model update adopted July 2013, and applied to projects.</li> <li>Impact fee study to be started FY15, anticipated completed FY16 as part of Traffic Mitigation Program.</li> </ul> |

| Emission Reduction Strategies  |               |  |
|--|---------------|--|
| Climate Plan Strategy  | Target Year   | Implementation/ Status (2013-2014)   |
| <b>Travel and Land Use (continued)</b>   |               |  |
| <p><i>Community Measure</i><br/> <b>36. Street widths</b><br/>           Consider street width or lane reductions to accommodate improvements where appropriate.<br/> <i>(PW Transportation)</i></p>   | Ongoing       | <ul style="list-style-type: none"> <li>• Considered in appropriate circumstances.</li> <li>• Example: Cliff Drive bicycle improvements; Haley Street bike lane.</li> </ul>   |
| <p><i>Community Measure</i><br/> <b>37. New development vehicle emissions</b><br/>           Require new development to demonstrate how project will support City-required vehicle carbon emissions standards.<br/> <i>(PW Transportation, CDD Planning)</i></p> | 2015          | <ul style="list-style-type: none"> <li>• Not yet implemented.</li> </ul>   |
| <p><i>Community Measure</i><br/> <b>38. Marine shipping emissions</b><br/>           Support regional &amp; State efforts to reduce marine shipping emissions.<br/> <i>(City Admin)</i></p>  | Ongoing       | <ul style="list-style-type: none"> <li>• City worked with SB County Air Pollution Control District to advocate for reduced ship speed limits through SB channel.</li> <li>• The Air Pollution Control District, working with partners, has moved forward with a Vessel Speed Reduction Incentive Trial Program in the SB Channel July 1-October 31 2014, with six shipping companies participating. The trial aims to help establish the foundation for a larger-scale program.</li> </ul>   |
| <b>Vegetation</b>  |               |  |
| <p><i>Community Measure</i><br/> <b>39. Tree planting</b><br/>           Plant 1000 new trees by 2030 to increase carbon sequestration.<br/> <i>(Parks &amp; Recreation)</i></p>   | 2030          | <ul style="list-style-type: none"> <li>• City with <i>Santa Barbara Beautiful</i> has planted 300+ trees per year; replaced 150 trees/ year; planted trees with parks/creek habitat prog's.</li> <li>• Creek Tree Program resulted in 93 Trees planted in FY13; 42 in FY14.</li> <li>• 237 Riparian trees and shrubs planted FY13; 147 in FY14.</li> <li>• Restoration projects add hundreds of trees at a time.</li> <li>• City is well on track to reach tree planting goal by 2030.</li> <li>• 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.</li> </ul> |
| <p><i>Community Measure</i><br/> <b>40. Street trees</b><br/>           Update Street Tree Master Plan to address long-term tree preservation measures.<br/> <i>(Parks &amp; Recreation)</i></p>   | 2015, ongoing | <ul style="list-style-type: none"> <li>• Urban Forest Master Plan adopted 2014 has direction for updating Street Tree Master Plan.</li> <li>• \$15,000 allocated in FY 2015 to begin community outreach initiatives.</li> </ul>  |

| Emission Reduction Strategies   |             |  |
|---|-------------|--|
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| <b>Vegetation (continued)</b>   |             |  |
| <p><i>Community Measure</i></p> <p><b>41. Tree and landscaping protection</b><br/>Protect native trees and promote use of native, drought-tolerant species in landscaping.</p> <ul style="list-style-type: none"> <li>• Update ordinance protecting native trees.</li> <li>• Site new development to protect specimen oaks and oak woodland habitat.</li> <li>• Create enforcement/mitigation program for loss of protected trees</li> </ul> <p><i>(CDD Planning, Parks &amp; Recreation)</i></p>                       | 2015        | <ul style="list-style-type: none"> <li>• Development permitting applies protection of oak woodlands &amp; native specimen trees.</li> <li>• All creeks planting activities include native and drought tolerant species.</li> <li>• Examples: Alamar, Samarkand, Hidden Oaks.</li> <li>• Urban Forest Plan adopted 2014 contains implementing programs to update ordinances.</li> <li>• Ordinance provisions under development to address tree removal &amp; enforcement.</li> </ul>  |
| <p><i>Community Measure</i></p> <p><b>42. Urban heat island effect</b></p> <ul style="list-style-type: none"> <li>• Establish standards to decrease permeable surfaces &amp; building areas relative to lot size.</li> <li>• Coordinate with Fire &amp; PW Transportation on roadway standards allowing permeable surfaces.</li> <li>• Provide incentives for projects incorporating cool roofs and green roofs.</li> </ul> <p><i>(CDD Planning &amp; Bldg, Fire, Parks &amp; Recr/Creeks, PW Transp &amp; Eng)</i></p> | 2020        | <ul style="list-style-type: none"> <li>• Fire Code update prohibits green roofs in designated High Fire areas.</li> <li>• Impervious surfaces installed at three City park parking lots; additional grant received.</li> <li>• Trees planted at Mackenzie Park parking lot in conjunction with permeable paver installation, which increases shade and reduces heat island effect.</li> <li>• A primary purpose of the Quarantina permeable pavers project is to protect existing mature canopy trees.</li> <li>• Zoning allows impervious surfaces for uncovered parking.</li> <li>• Development permitting examples: Sandman (significant permeable pavers); Cancer Center; Public Market; 1135 San Pasqual residential condos; 296 Schulte; Bath Street.</li> <li>• No budget or work on establishing standards for impermeable surfaces or green roofs.</li> </ul> |
| <p><i>Community Measure</i></p> <p><b>43. Regional open space preservation</b><br/>Coordinate with agencies to preserve open space in Las Positas Valley, foothills, etc.</p> <p><i>(Parks &amp; Recreation, CDD Planning)</i></p>  | Ongoing     | <ul style="list-style-type: none"> <li>• SBCAG sustainable Communities Green Print adopted 2013.</li> <li>• City is implementing the Upper Arroyo Burro Restoration project, which includes conservation and access easement.</li> <li>• Cliff Drive &amp; Los Positas has been identified as a future project / restoration area.</li> </ul>  |
| <b>Waste Reduction</b>  |             |  |
| <p><i>City Facilities</i></p> <p><b>44. City business purchasing guidelines</b><br/>Update procurement guidelines to increase use of recycled materials.</p> <p><i>(Finance/Environmental Services)</i></p>   | 2015        | <ul style="list-style-type: none"> <li>• The City's Environmentally Preferred Purchasing Policy, adopted in 2008, remains in effect.</li> </ul>  |



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| <b>Waste Reduction (continued)</b>  |             |   |
| <p><i>Community Measure</i><br/> <b>45. City facilities recycling</b><br/> Expand recycling programs at City facilities with goals of 50% diversion by 2015; 60% by 2020.<br/> <i>(Finance/Environmental Services, all depts)</i></p> | 2015        | <p>2013-2014 activities:</p> <ul style="list-style-type: none"> <li>• 12% of City facilities and buildings with 2/3 of monthly trash service dedicated to recycling, greenwaste or foodscraps (FY13).</li> <li>• Conducted waste audits and staff re-trainings on ten City facilities. In addition, staff produced employee training videos on Basic Recycling, Zero Waste Events, E-Waste Disposal and a comprehensive video to be shown at New Employee Orientation.</li> </ul> |
| <p><i>Community Measure</i><br/> <b>46. Electronic processes</b><br/> Reduce printing with more electronic processes.<br/> <i>(Finance/Environmental Services, all depts)</i></p>   | 2015        | <ul style="list-style-type: none"> <li>• Replacing hard document printing with electronic measures is one of the topics covered in City employee trainings.</li> </ul>  |
| <p><i>Community Measure</i><br/> <b>47. City coordination with region</b><br/> Coordinate with County &amp; cities on waste mgmt.<br/> <i>(Finance/Environmental Services)</i></p>  | 2020        | <p>City continues to work with the County and the Cities of Goleta on regional waste management initiatives including:</p> <ul style="list-style-type: none"> <li>• Resource Recovery Project</li> <li>• Operation Medicine Cabinet</li> <li>• Household Hazardous Waste; and,</li> <li>• Attending Local Task Force meetings as required by AB 939.</li> </ul>   |
| <p><i>Community Measure</i><br/> <b>48. Waste-to-energy facility at landfill</b><br/> Establish conversion technology at Tajiguas.<br/> <i>(Finance/Environmental Services)</i></p>   | 2015        | <ul style="list-style-type: none"> <li>• County decided not to proceed with waste-to-energy project, and is pursuing a Resource Recovery Project to extend life of landfill and convert organics into biogas.</li> </ul>  |
| <p><i>Community Measure</i><br/> <b>49. Communitywide waste diversion goal</b><br/> 75% waste diversion from landfill disposal by 2020.<br/> <i>(Finance/Environmental Services)</i></p>  | 2020        | <p>City achieved the following diversion rates:</p> <ul style="list-style-type: none"> <li>• State formula: 73% (2012)</li> <li>• Curbside diversion: 41% (2013)</li> </ul> <p>Development examples: adaptive reuse of substantial structures on Anacapa &amp; Mason Sts.</p>   |
| <p><i>Community Measure</i><br/> <b>50. Regional material recovery facility (MRF)</b><br/> Pursue establishing material recovery facility.<br/> <i>(Finance/Environmental Services, CDD Planning)</i></p>                             | 2015        | <ul style="list-style-type: none"> <li>• City is partnering with the County and other cities to establish a MRF on the South Coast.</li> <li>• A draft environmental report for the MRF was released in August 2014.</li> </ul>   |
| <p><i>Community Measure</i><br/> <b>51. Waste audit information for business</b><br/> Continue conducting business waste audits with Green Business Program.<br/> <i>(Finance/Environmental Services)</i></p>                         | 2015        | <ul style="list-style-type: none"> <li>• 141 contacts with businesses in 2014 to encourage waste reduction and recycling.</li> <li>• Staff conducted 9 Green Business audits in Calendar Year 2013.</li> </ul>  |



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| Climate Plan Strategy   | Target Year | Implementation/ Status (2013-2014)   |
| <b>Waste Reduction (continued)</b>  |             |  |
| <p><i>Community Measure</i><br/> <b>52. Recycling education campaigns</b><br/>           Outreach &amp; incentive programs for recycling.<br/> <i>(Finance/Environmental Services)</i></p>  | 2015        | <ul style="list-style-type: none"> <li>The City developed/aired multiple radio and television spots, banner ads, vignettes (<i>Inside Santa Barbara</i>) to promote business recycling, new services available to customers under the new franchise agreement with MarBorg, electronic waste collection events, cell phone &amp; battery collection, and bulky waste collection/illegal dumping prevention.</li> </ul>   |
| <p><i>Community Measure</i><br/> <b>53. Single-use packaging reduction</b><br/>           Consider ordinance options to reduce packaging.<br/> <i>(Finance/Environmental Services, City Attorney)</i></p>   | 2015        | <ul style="list-style-type: none"> <li>2012: developed Bag Ordinance with Ordinance Committee and Council and completed environmental review.</li> <li>October 2013: Council adopted Ordinance.</li> <li>November – May 2013: worked with all regulated Tier 1 stores to ensure compliance with ordinance; established dedicated Bag Ordinance website; developed/ aired radio and television spots.</li> <li>Similar outreach activities to prepare Tier 2 stores for compliance deadline.</li> </ul> |
| <p><i>Community Measure</i><br/> <b>54. Business &amp; MF recycling ordinance</b><br/>           City ordinance requiring recycling in business &amp; MF residential sectors toward meeting AB 341.<br/> <i>(Finance/Environmental Services, City Attorney)</i></p> | 2015        | <ul style="list-style-type: none"> <li>MarBorg met its AB 341 diversion thresholds in FY 14 without the assistance of a mandatory ordinance. The franchise agreement sets AB 341 diversion thresholds for MarBorg through 2018, which will in turn help the City to comply with State law.</li> </ul>  |
| <p><i>Community Measure</i><br/> <b>55. Construction waste enforcement</b><br/>           Increase enforcement of City ordinance for recycling of construction debris.<br/> <i>(Finance/Environmental Services)</i></p>   | 2015        | <ul style="list-style-type: none"> <li>The City permitted five construction/demolition waste haulers and processors in FY 14 pursuant to the City's Unscheduled Hauling Ordinance.</li> </ul>  |
| <p><i>Community Measure</i><br/> <b>56. Increased recyclables sorting</b><br/>           Pursue increased waste diversion by increased sorting (waste mgmt contracts or MRF).<br/> <i>(Finance/Environmental Services)</i></p>                                      | 2015        | <ul style="list-style-type: none"> <li>City is partnering with County &amp; other agencies to potentially establish a materials recovery facility (MRF).</li> </ul>  |
| <p><i>Community Measure</i><br/> <b>57. School waste diversion</b><br/>           Continue program with district schools to establish recyclables and food scrap collection.<br/> <i>(Finance/Environmental Services)</i></p>                                       | 2015        | <ul style="list-style-type: none"> <li>As of June 2013, All junior high and high school cafeterias in SBUSD now collect food scraps in the commercial kitchens.</li> </ul>   |
| <p><i>Community Measure</i><br/> <b>58. Materials reuse/recycling for builders</b><br/>           Establish data/outreach connecting builders to salvage/recycled building materials.<br/> <i>(Finance/Environmental Services)</i></p>                              | 2015        | <ul style="list-style-type: none"> <li>Connections established with builders and recycled materials suppliers.</li> </ul>  |

| <b>Emission Reduction Strategies</b>  |                    |   |
|---|--------------------|---|
| <b>Climate Plan Strategy</b>  | <b>Target Year</b> | <b>Implementation/ Status (2013-2014)</b>   |
| <b>Waste Reduction (continued)</b>  |                    |   |
| <i>Community Measure</i><br><b>59. Building space guidelines for waste</b><br>Update City space enclosure guidelines for new development.<br><i>(Finance/Envir. Services, CDD Planning &amp; Bldg)</i>                    | 2015               | <ul style="list-style-type: none"> <li>City staff developed waste generation profiles for business archetypes in FY 14, now included in the development review process to ensure that proposed developments provide for adequate trash and recycling capacity.</li> </ul>   |
| <i>Community Measure</i><br><b>60. Additional recycling materials</b><br>Measures to add materials to recycling/organics diversion.<br><i>(Finance/Environmental Services)</i>  | 2020               | <ul style="list-style-type: none"> <li>The City's franchise agreement with MarBorg (which began in July of 2013) now offers curbside cell phone and battery collection and twice per year electronics waste collection for all residential customers.</li> </ul>  |
| <i>Community Measure</i><br><b>61. Additional green waste capacity</b><br>Measures to increase local green waste capacity.<br><i>(Finance/Environmental Services)</i>   | 2020               | <ul style="list-style-type: none"> <li>The City's franchise agreement with MarBorg, now offers up to 192 gallons of green waste capacity at no additional charge for single family residential customers.</li> </ul>  |
| <i>Community Measure</i><br><b>62. Additional recycling in public places</b><br>Install additional recycling containers.<br><i>(Finance/Environmental Services)</i>   | 2020               | <ul style="list-style-type: none"> <li>In 2014, staff developed a repair and replacement schedule for public trash and recycling containers throughout the City. The plan, if approved by ABR and HLC, proposes to install trash containers with recycling capacity and to retrofit trash-only containers over the next several years.</li> </ul>   |
| <i>Community Measure</i><br><b>63. Additional composting</b><br>Work with public & private entities to increase composting.<br><i>(Finance/Environmental Services)</i>  | 2020               | <ul style="list-style-type: none"> <li>Food scraps collection service subscriptions by food-serving customers captured an additional 5,608 and 5,688 cubic yards of food waste respectively in Fiscal Years 2013 and 2014.</li> <li>Development project example: pending Coast Village Road Peabody project proposes composting to substantially reduce landfill disposal of waste generated by project.</li> </ul> |
| <i>Community Measure</i><br><b>64. Single-use bag reduction</b><br>Implement ordinance to regulate distribution of single-use bags by retailers.<br><i>(Finance/Environmental Services, City Attorney, CDD Planning))</i> | 2015               | <ul style="list-style-type: none"> <li>City ordinance adopted 2013 to reduce single-use plastic shopping bags use.</li> <li>Phased implementation began May 2014.</li> </ul>  |
| <b>Water Conservation</b>   |                    |   |
| <i>Community Measure</i><br><b>65. City facilities – water conservation</b><br>Continue upgrading equipment and expanding water-conserving practices.<br><i>(PW Water, Facilities)</i>                                    | Ongoing            | <ul style="list-style-type: none"> <li>Continuing to work with other City departments to reduce water use.</li> <li>Equipment and operations changes at three recreation facilities.</li> </ul>   |

| Emission Reduction Strategies   |               |  |
|---|---------------|--|
| Climate Plan Strategy   | Target Year   | Implementation/ Status (2013-2014)   |
| <b>Water Conservation (continued)</b>   |               |  |
| <p><i>Community Measure</i><br/> <b>66. Community water conservation</b><br/> Expand water conservation measures, including services to water customers; public information &amp; education; landscape and building design standards; and regional coordination.<br/> <i>(PW Water)</i></p> | 2015, ongoing | <ul style="list-style-type: none"> <li>Continuing to work with the Regional Water Efficiency Program including outreach, advertising, workshops, regional website, school programs, awards, and drought forums.</li> <li>Increased demand for water checkups for residents and businesses.</li> <li>Increased rebates for landscaping and irrigation retrofits.</li> <li>Implemented CII rebate program for large commercial, institutional, and industrial users.</li> <li>Countywide marketing plan implemented as well as drought marketing plan.</li> <li>Increased advertising for checkups, rebates, and simple irrigation fixes.</li> <li>Regional coordination: Ongoing interagency coordination, e.g., with COMB; IRWMP); agency consultations during drought.</li> </ul> |
| <p><i>Community Measure</i><br/> <b>67. Recycled water</b><br/> Expand City programs for use of recycled water; and work toward reducing need for blending potable water.<br/> <i>(PW Water)</i></p>  | 2020, 2030    | <ul style="list-style-type: none"> <li>Tertiary filter rehabilitation currently underway to reduce blending requirements.</li> <li>Submitted IRWM grant application for \$2 million to help fund filter construction.</li> <li>Pursuit of new customers will resume upon completion of filter rehabilitation.</li> </ul>   |
| <p><i>Community Measure</i><br/> <b>68. On-site water storage and reuse</b><br/> Identify guidelines for cisterns &amp; grey water use in new development and retrofits.<br/> <i>(PW Water, CDD Planning &amp; Bldg)</i></p>  | 2020          | <ul style="list-style-type: none"> <li>Currently have City guidelines for laundry to landscape gray water systems and permitting guidelines for branched-drain systems.</li> <li>Ongoing hands-on workshops and rebates for laundry to landscape systems.</li> </ul>   |

| Adaptation Strategies   |             |   |
|---|-------------|---|
| Climate Plan Strategy   | Target Year | Implementation/Status (2013-2014)   |
| <b>Adaptation Planning</b>  |             |   |
| <b>69. Planning for adaptation</b> <ul style="list-style-type: none"> <li>• Include latest timeline for climate changes in Climate Plan &amp; AMP, and consider in CIP list.</li> <li>• Monitor climate change; analyze effects</li> <li>• Identify options and priorities, and implement adaptation planning measures.</li> </ul> <i>(CDD &amp; other depts.)</i>  | 2020, 2030  | <ul style="list-style-type: none"> <li>• 2012 Climate Plan Fig. ES-2 includes timeline of climate change effects per State forecast.</li> <li>• Attached to this 2014 CAP status chart is a summary of updated State climate forecasts.</li> <li>• No budget or work on adaptation plan.</li> </ul>   |
| <b>70. Coordination of climate planning efforts</b> <ul style="list-style-type: none"> <li>• Coordinate monitoring, analysis, adaptation planning among depts, agencies, community</li> <li>• Team with universities to evaluate climate information; develop more detailed analysis of local Santa Barbara changes.</li> <li>• Pursue grant funding for studies/adaptation</li> <li>• Establish public information mechanisms</li> </ul> <i>(CDD &amp; other depts.)</i> | Ongoing     | <ul style="list-style-type: none"> <li>• No work to date on establishing central coordination effort or public information mechanism.</li> <li>• UCSB is conducting a grant study of climate change effects on coastal ecosystems.</li> <li>• UCSB Bren team is assisting in analysis of sea level rise for City LCP update.</li> <li>• LCP update includes regional coastal adaptation coordination effort.</li> </ul> |
| <b>Emergency Preparedness</b>   |             |   |
| <b>71. Emergency response strategies</b><br>Incorporate climate change effects into emergency response strategies (extreme weather, sea level rise, epidemics, etc.).<br><i>(Fire/EM)</i>   | 2015        | <ul style="list-style-type: none"> <li>• 2013 City General Plan Safety Element update includes climate discussion, policies.</li> <li>• Climate change effects to be incorporated into revision of the City's Emergency Management Plan in 2016.</li> <li>• Climate change effects to be incorporated into next update of interagency local hazard mitigation plan.</li> </ul>  |
| <b>72. Emergency workforce</b><br>Work with region to ensure essential workers for disaster response.<br><i>(Fire/EM)</i>   | 2015        | <ul style="list-style-type: none"> <li>• No regional agency effort toward assuring essential workers for disaster response.</li> <li>• Cottage Hospital workforce housing project established housing within the City for hospital employees.</li> </ul>  |
| <b>73. Public education for emergencies</b><br>Public education on emergency preparedness to enhance community resilience.<br><i>(Fire/EM)</i>  | 2015        | <ul style="list-style-type: none"> <li>• Regular CERT classes held (48 residents trained in 2013).</li> <li>• Office of Emergency Services Newsletter (sent to all City employees and through social media, e.g., OES facebook, e-subscription, Next Door Neighbor, etc.).</li> </ul>   |
| <b>74. People with disabilities</b><br>Address special needs of people with disabilities in emergency response plans.<br><i>(Fire/EM)</i>   | 2015        | <ul style="list-style-type: none"> <li>• City emergency response plans include provisions.</li> <li>• Incorporate into Advanced CERT Classes.</li> </ul>  |

| <b>Adaptation Strategies</b>   |                    |  |
|--|--------------------|--|
| <b>Climate Plan Strategy</b>   | <b>Target Year</b> | <b>Implementation/Status (2013-2014)</b>   |
| <b>Emergency Preparedness (continued)</b>  |                    |  |
| <b>75. Community resilience planning</b><br>Community resiliency planning process to improve initial response/relief, & later recovery. <ul style="list-style-type: none"> <li>• Maps &amp; inventories of relief resources.</li> <li>• Outline/example of neighborhood plan.</li> <li>• Additional community actions or projects.</li> </ul> <i>(CDD Planning &amp; other depts.)</i>                               | 2020               | <ul style="list-style-type: none"> <li>• Nextdoor neighborhood web sites established.</li> <li>• Work on planning process not yet initiated.</li> <li>• Some community/neighborhood work underway within private sector.</li> </ul>  |
| <b>Wildfire, Flooding, Water Quality</b>   |                    |  |
| <b>76. Residential development – high fire hazard</b><br>Limit density in high fire hazard areas. Establish incentive/ option to transfer development rights. <i>(CDD Planning, Fire, City Attorney)</i>   | 2015               | <ul style="list-style-type: none"> <li>• General Plan &amp; Zoning map updates reflected no density increases in high fire hazard areas.</li> <li>• No budget or work to date on incentive/ transfer of development rights.</li> </ul>   |
| <b>77. Fire prevention and creek restoration</b><br>Coordinate fire prevention & creek protection planning. Develop best practices. <i>(Fire, P&amp;R/Creeks)</i>  | 2015               | <ul style="list-style-type: none"> <li>• Ongoing coordination between departments.</li> <li>• City efforts underway to update best practices guidance for upcoming projects.</li> </ul>  |
| <b>78. Water system improvement for firefighting</b><br>Evaluate any feasible water system measures to assist emergency response. Incorporate in CIP. <i>(PW/ Water)</i>   | Ongoing            | <ul style="list-style-type: none"> <li>• Water system improvements are considered annually through City budget &amp; capital prog.</li> </ul>  |
| <b>79. Private water supplies for firefighting</b><br>Promote/ assist owners in high fire hazard areas to install emergency water supplies. <i>(CDD Planning &amp; Bldg, Fire)</i>   | Ongoing            | <ul style="list-style-type: none"> <li>• No recent projects.</li> </ul>  |
| <b>80. Floodplain mapping update</b> <ul style="list-style-type: none"> <li>• Update Special Flood Hazard Area maps.</li> <li>• Develop updated maps with sea level rise.</li> </ul> <i>(CDD Bldg; Planning, PW, Waterfront, Airport, P&amp;R)</i>   | 2020               | <ul style="list-style-type: none"> <li>• The Mission Lagoon and Laguna Creek Restoration project includes SLR consideration (conceptual plan being developed).</li> </ul>  |
| <b>81. Creek resources and water quality</b><br>Development & infrastructure are to address storm water, watersheds, creeks, water quality, open space, public access/awareness. <ul style="list-style-type: none"> <li>• Creeks management plans</li> <li>• Master drainage plan</li> <li>• Beach water quality plan</li> <li>• Watershed management plans</li> </ul> <i>(P&amp;R, CDD Planning &amp; Bldg, PW)</i> | 2025, ongoing      | <ul style="list-style-type: none"> <li>• Individual development projects address creek and water quality issues.</li> <li>• Implementation of action items from previous studies underway (2000 Creek Inventory and Assessment Study, 2005 Existing Condition Study, and 2009 Laguna Watershed Study).</li> <li>• Beach water quality requires implementation of stormwater BMP provisions.</li> <li>• NPDES program permit.</li> <li>• Ongoing stages of implementation.</li> </ul> |

| Adaptation Strategies  |               |  |
|--|---------------|--|
| Climate Plan Strategy  | Target Year   | Implementation/Status (2013-2014)  |
| <b>Coastal Vulnerability and Adaptation Planning</b>   |               |  |
| <p><b>82. Sea level monitoring, data, analysis</b></p> <ul style="list-style-type: none"> <li>Protect ongoing functioning of tide gauge.</li> <li>Establish transects for regular monitoring of sea cliff erosion</li> <li>Establish winter &amp; summer beach profiles for annual monitoring.</li> <li>Flooding/inundation. Develop projected future flooding/inundation maps.</li> </ul> <p><i>(P&amp;R, CDD Planning &amp; Bldg, PW)</i></p>  | 2020          | <ul style="list-style-type: none"> <li>Initial maps prepared that depict areas subject to future flooding per State sea level forecasts.</li> <li>LCP update to include updated SLR vulnerability assessment conducted by BREN school masters candidates.</li> <li>County SLR vulnerability modeling will include City of Santa Barbara.</li> </ul>  |
| <p><b>83. Sea level rise (SLR) risk/vulnerability studies</b></p> <p>Conduct studies of future SLR effects on storm flooding, beach/ cliff erosion, inundation, GW.</p> <p><i>(CDD, Waterfront, Airport, PW, P&amp;R, Fire)</i></p>  | 2020          | <ul style="list-style-type: none"> <li>Sea level rise effects are under further study as part of coastal ecosystem study, Goleta slough study, LCP update study, ground water study, &amp; SB County study. These will inform an overall City risk/vulnerability study.</li> <li>Mission Lagoon / Laguna Creek Restoration project includes SLR considerations in concept design plan.</li> <li>Draft Goleta Slough Sea Level Rise Study to be available in September 2014.</li> </ul> |
| <p><b>84. Incorporate adaptation in development</b></p> <p>Incorporate climate adaptation in development and public facility projects.</p> <ul style="list-style-type: none"> <li>Estimate useful life of projects &amp; incorporate adaptation into project siting/design.</li> <li>Prepare development adaptation guidelines.</li> </ul> <p><i>(CDD &amp; other depts.)</i></p>  | 2015, ongoing | <ul style="list-style-type: none"> <li>Individual development project permitting considers sea level rise and cliff erosion.</li> <li>Example projects: Cabrillo Bridge (SLR); Edgewater residence (cliff erosion).</li> <li>No work on dev. adaptation guidelines.</li> </ul>   |
| <p><b>85. Sea level rise adaptation</b></p> <p>Identify policy options, costs, consequences for addressing SLR adaptation, including:</p> <ul style="list-style-type: none"> <li>Techniques to minimize wave damage.</li> <li>Review SLR hazard to public facilities/utilities</li> <li>Consider adaptation measures (protect, raise, managed retreat/relocation, etc)</li> <li>Coordinate with private owners on techniques for structural adaptation/design.</li> </ul> <p><i>(CDD &amp; other depts.)</i></p> | 2020          | <ul style="list-style-type: none"> <li>Individual projects are considering SLR issues per Coastal Commission draft guidelines.</li> <li>Hazard to public facilities/utilities to be considered with update of Local Hazard Mitigation Plan.</li> <li>No work on overall options/cost study.</li> </ul>   |
| <p><b>86. Future inundation</b></p> <p>Consider options for adaptation to future permanent inundation due to sea level rise.</p> <ul style="list-style-type: none"> <li>Mandatory rolling setbacks over time.</li> <li>Restricting rebuilding damaged structures</li> <li>Relocation policies &amp; funding/tax incentives</li> <li>Evaluating cost, impact, lifespan of seawall along Cabrillo Blvd &amp; Shoreline Dr.</li> </ul> <p><i>(CDD Planning &amp; other depts.)</i></p>                              | 2020          | <ul style="list-style-type: none"> <li>No budget or work on adaptation options study.</li> </ul>   |

| Adaptation Strategies   |             |   |
|---|-------------|---|
| Climate Plan Strategy   | Target Year | Implementation/Status (2013-2014)   |
| <b>Coastal Vulnerability and Adaptation Planning (continued)</b>  |             |   |
| <p><b>87. Bluff retreat guidelines</b></p> <ul style="list-style-type: none"> <li>All development shall consider effects of bluff retreat for life of project.</li> <li>Update sea cliff retreat formula (SE, LCP).</li> <li>Prepare guidelines for development on sea cliffs; incorporate in LCP.</li> </ul> <p><i>(CDD Planning.)</i></p>   | 2015        | <ul style="list-style-type: none"> <li>Development permitting applies policy; further guidelines to be developed.</li> <li>Example projects: Edgewater Way, Sea Ledge Lane residences.</li> <li>Sea cliff retreat formula updated with City MEA and 2013 Safety Element update.</li> <li>LCP amendment underway (2016 completion).</li> </ul>   |
| <p><b>88. Cliff erosion policies</b></p> <p>Consider additional policies as part of future adaptation planning:</p> <ul style="list-style-type: none"> <li>Identify policy for relocation of structures as setback distance from cliff edge decreases.</li> <li>Identify further policies for control of drainage to reduce potential for cliff failure.</li> </ul> <p><i>(CDD Planning &amp; other depts.)</i></p>                                       | 2020        | <ul style="list-style-type: none"> <li>No work on policy analysis.</li> </ul>   |
| <p><b>89. Shoreline management plan</b></p> <p>Develop plan to manage/mitigate SLR impacts to public facilities and private property.</p> <ul style="list-style-type: none"> <li>Protection of sand transport/ replenishment</li> <li>Natural bluff stabilization/erosion control</li> <li>Non-intrusive methods for sand retention</li> <li>Funding for beach, bluff retreat</li> </ul> <p><i>(Waterfront with P&amp;R/Creeks, PW, CDD Planning)</i></p> | 2020        | <ul style="list-style-type: none"> <li>Continued participation in Beach Erosion Authority for Clean Oceans &amp; Nourishment (BEACON) activities and Regional Sediment Management Plan (RSMP).</li> <li>Continued coordination with the U.S. Army Corps of Engineers to ensure regular dredging occurs with sediments discharged on East Beach to provide for necessary beach nourishment and recreational opportunities.</li> <li>Mission Lagoon / Laguna Creek Restoration Conceptual Plan considers sea level rise effects and will improve resiliency.</li> </ul> |
| <p><b>90. Beach erosion policies</b></p> <p>Consider policies as part of adaptation planning:</p> <ul style="list-style-type: none"> <li>Allow beaches to gradually retreat</li> <li>Utilize beach nourishment and sand retention structures to maintain beach width</li> <li>Selective removal of back beach barriers to allow beaches to migrate landward</li> </ul> <p><i>(CDD Planning, Waterfront, P&amp;R, PW)</i></p>                              | 2020        | <ul style="list-style-type: none"> <li>No work on beach erosion adaptation policies.</li> </ul>   |
| <p><b>91. Coastal ecosystems study</b></p> <p>Regional study of vulnerability &amp; adaptation of coastal ecosystems to climate change effects.</p> <p><i>(P&amp;R with other depts.)</i></p>   | 2020        | <ul style="list-style-type: none"> <li>2-year coastal ecosystems vulnerability study (CEVA) is underway through grant funding and cooperative effort by UCSB, Scripps, City, County, Goleta, and Carpinteria.</li> </ul>  |



| Adaptation Strategies   |                  |  |
|---|------------------|--|
| Climate Plan Strategy   | Target Year      | Implementation/Status (2013-2014)  |
| <b>Public Services</b>  |                  |  |
| <b>92. Water supply planning</b><br>Assess effects of climate change on water supply as part of Plan updates; track impacts.<br><i>(PW Water)</i>   | 2015,<br>Ongoing | <ul style="list-style-type: none"> <li>• City 2012 Long-Term Water Supply Plan and 2013 Urban Water Plan considered climate change effects on water supply.</li> <li>• US Geological Survey study in progress on managing seawater intrusion effects on groundwater.</li> <li>• State issued 2013 assessment of climate change effects on water supply.</li> </ul>   |
| <b>93. Regional cooperation - water supply</b><br>Continue work with regional programs & projects to improve water supply reliability.<br><i>(PW Water)</i>   | Ongoing          | <ul style="list-style-type: none"> <li>• City continues to be an active participant in the IRWM process for the Santa Barbara County Region.</li> <li>• Supplemental water deliveries coordinated on behalf of the City and other members by CCWA.</li> <li>• Work continues on the Regional Water Efficiency Program, including outreach, advertising, workshops, regional website, school programs, awards, and drought forums.</li> </ul> |
| <b>94. Local food cultivation</b><br>Support local food cultivation/ marketing. <ul style="list-style-type: none"> <li>• Farmers markets</li> <li>• Gardener education</li> <li>• Food scrap recovery/composting</li> </ul> <i>(CDD Planning, PW Water, Finance/Env Services)</i>     | 2030             | <ul style="list-style-type: none"> <li>• Three farmers market locations are permitted in the City (State St., Cota St., Coast Ville Rd.).</li> <li>• PW Water Resources participates in training green gardeners on water wise landscaping and irrigation products &amp; processes.</li> <li>• Environmental Services implements food scrap recovery, and composting programs.</li> </ul>  |
| <b>95. Community gardens</b><br>Support establishment of community gardens. <ul style="list-style-type: none"> <li>• Vacant or underutilized properties.</li> <li>• Public &amp; private food gardens.</li> <li>• Food gardens for schools.</li> </ul> <i>(CDD &amp; other depts)</i> | 2030             | <ul style="list-style-type: none"> <li>• Prior studies of vacant/underutilized sites (housing &amp; parks studies) to be updated.</li> <li>• Examples: Mason St., Cliff/ Meigs, Haley/ Salsipuedes, So. Hope, Alma del Pueblo.</li> </ul>  |
| <b>96. Regional agriculture</b> <ul style="list-style-type: none"> <li>• Support regional efforts to expand local food sources (farms, stands, etc.).</li> <li>• Support directing local food to schools, grocers, restaurants.</li> </ul> <i>(CDD, City Admin)</i>                   | Ongoing          | <ul style="list-style-type: none"> <li>• City legislative platform supports agriculture.</li> <li>• Example development project at 296 Schulte.</li> </ul>   |

| Adaptation Strategies   |               |  |
|---|---------------|--|
| Climate Plan Strategy   | Target Year   | Implementation/Status (2013-2014)  |
| <b>Biological Resources</b>   |               |  |
| <p><b>97. Wildlife and habitat protection</b><br/>Protect remaining native plant/wildlife habitats.</p> <ul style="list-style-type: none"> <li>• Map &amp; designate habitats</li> <li>• Multi-use plan for coast/ habitat restoration</li> <li>• Coastal bluff habitat protection/ restoration</li> <li>• Native species habitat planning</li> <li>• Riparian woodland protection</li> </ul> <p><i>(CDD, Waterfront, P&amp;R)</i></p>  | 2020, ongoing | <ul style="list-style-type: none"> <li>• Related regional &amp; City efforts will inform mapping &amp; plan (Urban Forest Plan; coastal ecosystem study; MEA update, restoration).</li> <li>• No work started on City habitat mapping.</li> <li>• Las Positas Restoration project (underway).</li> <li>• Upper Arroyo Burro Restoration project (underway).</li> <li>• Mission Lagoon / Laguna Creek Restoration Project (underway).</li> <li>• Mission Creek Fish Passage completed.</li> </ul> |
| <p><b>98. Open space connectivity and trails</b><br/>Protect contiguous open space &amp; connectivity.</p> <ul style="list-style-type: none"> <li>• Open space preservation. Identify key open spaces; implement actions to preserve.</li> <li>• Trails management. Manage trails for passive recreation and habitat corridors.</li> <li>• Development policies. Site development to preserve open space and wildlife corridors.</li> <li>• Regional open space. Coordinate with agencies to protect regional open space.</li> </ul> <p><i>(P&amp;R, CDD)</i></p>   | 2020, ongoing | <ul style="list-style-type: none"> <li>• <i>Example development projects:</i> Veronica Meadows trails; Rogers tract open space easement; Development permitting examples: Cliff/Loma Alta enforcement case.</li> <li>• Los Positas Valley Restoration project aims to create creakside multi-use trail and habitat restoration.</li> <li>• Regional: 2013 adoption of regional green print as part of SBCAG Sustainable Communities Strategy.</li> </ul>   |
| <p><b>99. Creek protection, restoration</b><br/>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"> <li>• Develop creek setback standards</li> <li>• Establish design guidance to development near creeks</li> <li>• Prohibit placement of concrete or piping of major creeks (expect repair or public safety), and remove concrete when feasible.</li> <li>• Restore or daylight .5 mile of surface drainages by 2030.</li> </ul> <p><i>(P&amp;R, CDD)</i></p> | 2020, ongoing | <ul style="list-style-type: none"> <li>• Multiple neighborhood and public restoration sites; frequent neighborhood, school and business volunteer-based restoration projects.</li> <li>• Positas Valley restoration project will investigate removing concrete barrier and restoring 1800 linear feet of creek.</li> <li>• Upper Arroyo Burro Restoration Project restores 2100 linear feet of creek.</li> </ul>   |

| Adaptation Strategies   |               |  |
|---|---------------|--|
| Climate Plan Strategy   | Target Year   | Implementation/Status (2013-2014)  |
| <b>Local Economies</b>  |               |  |
| <p><b>100. Coordinate with local business</b><br/>           Include in adaptation planning local business sectors that may be affected by climate change effects (e.g., fisheries, tourism).<br/> <i>(CDD, City Admin)</i></p> | 2015, ongoing | <ul style="list-style-type: none"> <li>• There is no current direct activity addressing climate change adaptation with local businesses.</li> <li>• There are several existing programs/planning efforts which have contact with businesses and could provide opportunities to address this issue in the future:               <ul style="list-style-type: none"> <li>○ The Southern California Energy Efficiency Program (SCEEP);</li> <li>○ The Green Business Program;</li> <li>○ Water Conservation outreach</li> <li>○ Local Coastal Planning update via the Harbor Commission</li> <li>○ Airport Master Plan via the Airport Commission</li> </ul> </li> </ul> |

Attachment : Exhibit A - Summary of Future Climate Change Effects

## Exhibit A

### Summary of Future Climate Change Effects

The chart below shows estimated time lines for projected climate changes and effects in the coming decades. The initial version of the chart is included as Figure ES-2 in the *2012 City of Santa Barbara Climate Action Plan*.

Strategy 68 in the Climate Plan directs that periodic updates to these projected climate effects time lines be identified as part of General Plan Adaptive Management Program status reports. Updated information based on State of California publications is indicated in bold type in the chart below.

| <b>Summary of Potential Future Climate Change Effects (2014 update)</b> |   |
|---|---|
| <b>Temperature, rainfall, extreme weather</b>                           |   |
| Temperature<br><b>Low end of range increased</b>                        | 2050 projection (Calif.): average temperature increase: <b>3.2 degrees F</b> (low emissions)– 5.4 degrees F (high emissions); more frequent heat waves.   |
| Precipitation   | 2050 projection (Calif.): average rainfall decrease of 12 – 35%; less snow pack, more droughts  |
| Wildfires   | 2050 projection (Calif.): greater wildfire risk (warmer, drier conditions)  |
| Storm events & flooding   | 2050 projection (Calif.): more erratic weather patterns and extreme rainstorm events, with associated storm damage and flooding.  |
| Pests & vectors   | 2050 projection (Calif.): potential for altered transmission patterns for pests, vectors, and diseases. <b>Increased toxic ocean algae blooms expected.</b>   |
| Air pollution   | 2050 projection (Calif.): increased smog production and changes to pollen production; reactive nitrogen disposition affecting plants  |
| Water pollution   | 2050 projection (Calif.): increased risk for pollution of streams (higher temperatures; urban runoff during intense storms); seawater intrusion into groundwater; ocean acidification affecting sea creatures.  |
| <b>Sea level rise</b>   |   |
| Sea level rise<br><b>Wider ranges low &amp; high</b>                    | 2030 projection (Calif.): average 7 inches rise; <b>range 2 – 12 inches</b><br>2050 projection (Calif.): <b>average 15 inches; range 5 – 24 inches</b><br>2070 projection (Calif.): medium average 24 inches; range 17-39 inches<br>2100 projection (Calif.): <b>medium average 42 inches; range 17-76 inches</b>                                     |
| Storm damage  | 2050, 2100 projections (SB): sea level rise exacerbates high-magnitude storm events, affecting wave damage, flooding, erosion<br>2050: high probability and magnitude in Santa Barbara<br>2100: very high magnitude probability and magnitude in SB   |
| Flooding and inundation<br><b>Vulnerability increase</b>                | 2050, 2100 projections (SB): increased areas subject to 100-year flooding; permanent inundation of some low-lying areas<br>2050 probability and magnitude moderate for City, high for Airport<br>2100 probability and magnitude high for City, very high for Airport<br><b>(Calif.) 36% increase in SB land acreage vulnerable to 100-year flood.</b> |
| Beach retreat   | 2050, 2100 projections (SB): potential erosion or loss of beaches<br>2050 probability and magnitude low for Santa Barbara<br>2100 probability and magnitude moderate to high for City beaches   |
| Coastal cliff erosion   | 2050 projection (SB): moderate probability of substantial increase in erosion rate (doubled from current 6-12 in/yr to 12-24 in/year)<br>2100 projection (SB): probability and vulnerability high of increased erosion rates, threatening cliff-top homes.  |
| Tsunami   | 2050, 2100 projection (SB): very low probability of occurrence continues, with low risk of damage   |

| <b>Summary of Potential Future Climate Change Effects (2014 update) <i>continued</i></b> |  |
|--|--|
| <b>Public services</b>   |  |
| Water supply   | <b>Current multi-year drought could result in short-term water deficit locally and statewide. City activities underway to conserve water and increase supplies.</b><br>2030 projection (SB): adequate SB water supply.<br>2050, 2100 projections (Calif.): increased pressures on statewide water supplies due to less rainfall and less water storage as snow pack, with increased irrigation demand and increased population |
| Agriculture and food supply  | 2050, 2100 projections (Calif.): alterations in crop yields, growing seasons, and pest ranges due to changes in temperature, rainfall, extreme weather, and water supply.  |
| Energy demand  | 2050, 2100 projections (Calif.): increased statewide energy demand with population increase, more demand for cooling, peak summer demand, utilities, water transport, and industries.  |
| <b>Biological resources</b>  |  |
| Natural habitats and species   | 2050, 2100 projections (Calif.): varied species responses to changes in temperatures, rainfall, weather patterns, extreme events, wildfire, rising sea levels, coastal erosion, and air and water pollution. Individual species may adapt, survive in reduced ranges, migrate, or not survive. General trend to move northward and upslope anticipated.  |
| <b>Local economies</b>   |  |
| Fisheries and tourism  | 2050, 2100 projections (Calif.): marine habitats changes could affect fishing industry. Weather events, coastal erosion could affect tourism.  |

References:

- CA Air Resources Board, *AB 32 Scoping Plan Update* (2013)
- CA Climate Action Team, *Climate Change 3<sup>rd</sup> Assessment Report* (2013)
- CA Climate Action Team, Ocean Protection Council Science Advisory Team, et. al., *Sea Level Rise Guidance Document* (2013 Update)
- CA Emergency Management Agency, *California Adaptation Planning Guide*, 2012.
- CA Environmental Protection Agency, *Indicators of Climate Change in California* (2013)
- CA Water Resources Control Board, *California Water Plan Update* (2013)
- Cal-Adapt web site (2014)
- City of Santa Barbara, *Climate Action Plan* (2012).
- Western Regional Climate Center, *California Climate Tracker*, 2013.