SUSTAINABILITY ACTION PLAN

6/15/2010

FINAL PLAN

Sustainability Action Plan

Table of Contents

Sustainability Action Plan

INTRODUCTION

According to the United Nations, the world's population is over 6 billion people, and this number continues to grow at rates that were unprecedented before the 20th century. The economic activity to support all those here now, and the additional 3 billion people expected by the year 2050, places a great demand for energy and resources, along with associated environmental impacts which can negatively affect our community and quality of life. There is a growing awareness for the need to live and work in more resource-efficient and environmentally conscious ways to ensure a better future for ourselves and future generations.

What is Sustainability and Why Pursue It?

Living, and conducting business, in a way that considers natural resources and environmental impacts is referred to as "sustainability." The most common definition comes from a United Nations report, which states that "sustainability meets the needs of the present without compromising the ability of future generations to meet their own needs." In other words, a sustainable society is one in which consumption of resources doesn't exceed nature's ability to replenish those resources. For the City of San Clemente, this would mean implementing sustainable policies and practices for its own operations and areas of jurisdiction to ensure that the City can meet its current needs without compromising the ability of future generations to do the same.

While resource demands and environmental issues are linked on local, national and even global scales, communities and governments are increasingly taking steps to start addressing some of these challenges locally. Since the City of San Clemente is a significant landowner, employer, building manager, fleet operator, utility owner and operator, and consumer of goods and services, it has the opportunity to affect meaningful improvements in use of resources and environmental impacts. Just some benefits of adopting sustainable practices include improving community livability (via improvements in air and water quality, reduction in harmful emissions and traffic congestion, other pollution reduction methods, etc.), conserving resources (e.g. using less electricity, fuel and water), and saving money by implementing conservation measures and efficient technologies.

State Policies and Legislation

The State of California has created a set of executive orders, legislation, policies, and programs that are intended to work together to achieve the overall goal of reducing greenhouse gas emissions. The overall goals are established by the California Global Warming Solutions Act (AB 32) which directs the California Air Resources Board to set reporting requirements for greenhouse gas emission and develop rules and regulations needed to reduce Statewide emissions to 1990 levels by 2020. Governor Schwarzenegger's Executive Order S-3-05 provides an additional long-term target of 80% below 1990 levels by 2050. In 2008,

the Air Resources Board approved the "Scoping Plan" as a State-level roadmap to implement the mandates of AB 32 and achieve State-wide emissions reductions. The Scoping Plan effectively establishes a Statewide carbon budget that, when implemented, allows the State to achieve emissions reductions while accommodating a growing population and an expanding economy. The State's carbon budget relies on a combination of policies and programs that will reduce the intensity of emissions[1] in key sectors (refer to Appendix B for further detail).

Purpose and Scope

As awareness of sustainability issues increases, an increasing number of local governments are pursuing efforts to achieve sustainability. This typically begins with a stated commitment to pursue a sustainable strategy or plan, followed by a collaborative, public process to develop an action plan. Efforts can include a variety of approaches, from developing policies to implementing technological retrofits. The purpose of the City's effort is to develop a plan for coordinated, city-wide implementation of sustainable practices and technologies.

The Sustainability Action Plan is being developed to initially address environmental sustainability in the following six main focus areas:

- Resource Conservation – Decrease consumption of non-renewable, non-recycled materials and pursue and encourage use of renewable resources (e.g. solar power, recycled water, etc.). This focus area is further targeted toward solid waste reduction, water use, and energy use.
- Environmental and Public Health – Minimize levels of pollutants entering the air, soil, and water from everyday business and residential practices.
- Urban Nature – Develop and maintain a parks and open space system that supports natural local habitat, and provides both passive and active recreation opportunities.
- Urban Design – Establish "green" land use and building standards for public and private development, redevelopment and retrofit projects.
- Transportation – Encourage and pursue alternative forms of transportation (including pedestrian, bicycle, mass-transit, and fuel-efficient/alternative fuel vehicles).
- Community Education and Civic Participation/Public Involvement – Develop education and outreach programs that are easily accessed by community members, and encourage collaboration and dialogue between City officials, staff, businesses, community groups, and individual residents. Descriptions of educational efforts are integrated within the other main focus areas noted above.

[1] Emissions intensity is a measure of the amount of greenhouse gas emissions associated with a specific activity. For example, metric tonnes of carbon dioxide equivalents per dwelling unit, per kilowatt of purchased electricity, or per unit of economic activity.

This document is intended to serve as a "road map" to help guide implementation of various programs and activities that the City intends to pursue to increase environmental sustainability in our community. This Sustainability Action Plan identifies general actions, targets, and responsible parties in the six focus areas, along with an anticipated implementation timeline for these actions. This Plan does not identify all of the specific tasks, or associated estimated costs, for implementing the identified general sustainability actions. That information will be developed and provided to the City Council for consideration during the annual budget process, according to the anticipated implementation timeline provided in this Plan. This Plan is intended to be a "living document" that will be periodically revised to address new regulations or community priorities. Any proposed changes to the Sustainability Action plan will be presented to the City Council for consideration and approval.

Plan Development Process

During the January 30, 2008 meeting on the Vital Few Priorities, the City Council made a commitment to pursue improved environmental sustainability of the City's policies, operations, and projects. Staff was directed to start developing a Sustainability Action Plan as discussed above. The initial goal was to develop a draft framework document, followed by a formal action plan by the end of Fiscal Year 2010. To meet these goals, a Sustainability Action Plan Task Force convened in September 2008. The task force included members of San Clemente Green[2], City staff (including the City Manager), and Council member Joe Anderson as the City Council's appointed representative. Local citizens also participated as the task force meetings were open to the public. Each month the task force focused on a specific topic area to discuss research conducted by task force members, and then develop suggested goals and implementation actions.

A Draft Framework document was presented to the City Council in August 2009 to seek Council feedback and direction before proceeding with development of the final plan. The City Council found that the Draft Framework document was consistent with its expectations, and directed staff to continue work to prepare the final plan. A public workshop was held in mid-January 2010 to provide another opportunity for the public to review and comment on the proposed plan. About 20 people attended, and the general theme of the comments provided was that the proposed plan represented a good start and appropriate direction, and that the City should diligently work toward implementing the Sustainability Action Plan.

[2] San Clemente Green is a local non-profit organization that aims to protect and enhance the quality of life in San Clemente by promoting sustainable practices. More information is available at www.sanclementegreen.org.

EXISTING PRACTICES AND OPPORTUNITIES ASSESSMENT

City "Green Team"

City staff has formed a "Green Team" which includes a staff representative from affected City departments. The Green Team members serve as the primary sustainability contacts for key City departments, and collectively will be responsible for helping to develop, coordinate and implement sustainability initiatives, as well as for reporting on each department's progress toward meeting the sustainability goals and targets identified in the City's approved Sustainability Action Plan. The Green Team includes:

- Beaches, Parks and Recreation Department
  - Golf: Gus Nelson
  - Maintenance, Mark Chavez
  - Park Development: Tim Shaw
- Public Works Department
  - Fleet Services: Mark Murphy
  - Maintenance: Dave Dendel
  - Engineering: Tom Bonigut
  - Utilities: Nathan Adams
  - Environmental Services: Mary Vondrak (Water Quality) and Danna McIntosh (Recycling)
- Community Development Department
  - Planning: Christopher Wright
  - Building: Mike Jorgensen
- Finance: Tom Rendina
- Animal Services (CASA): Terry Matz

A "Sustainability Coordinator" will be charged with coordinating implementation of the Sustainable Action Plan and the efforts of the Green Team. Tom Bonigut, Assistant City Engineer, is currently designated to serve as the Sustainability Coordinator.

Existing Practices and Future Opportunities

Even before the desire to develop a comprehensive Sustainability Action Plan, the City has been implementing practices that could be considered sustainable. The following list summarizes key sustainable practices that are already being implemented as part of the City's standard business operations. To help plan for future efforts, the Green Team will use the list of existing practices as a foundation from which to identify additional opportunities.

Solid Waste / Recycling

- Waste reduction and recycling program in all city offices and facilities
- Require all events held in City facilities and/or City property to provide recycling at the event
- Construction and Demolition Waste Recycling Program (50% diversion requirement)

- Residential Electronic, Universal and HHW waste collection programs
- Recycling education programs and materials to all San Clemente schools, residents and businesses
- Use of rubberized asphalt and recycled aggregate for City street projects
- Use of recycled plastic for all city park playground equipment
- Use of rubberized surfacing at all city park playgrounds area
- Historic preservation program

Water Use

- Recycled water generation and planned expansion
- Water conservation education and rebate programs
- Tiered water rate structure to encourage conservation
- Recently updated water conservation ordinance
- Water distribution system leak detection program
- Local water supply development (recycled water, new wells, regional desalination project) to reduce dependence on imported water
- Require drought-tolerant landscaping and efficient irrigation systems through development review process (all commercial/some residential)

Energy Use

- Recent energy efficiency audits of high energy use City facilities
- Recent Demand Response Program audit of City facilities
- Energy Efficiency and Conservation Block Grant (EECBG) implementation (in progress)
- Energy efficiency at City facilities:
    - Replacement of incandescent lighting with fluorescent lighting
    - Replacement of old HVAC systems with new energy-efficient equipment
    - Replacement of water heaters with new energy-efficient models
    - Use of Energy Star appliances or equipment
    - Installation of new lighting control switches or occupancy sensors
    - Thermostats controlled to shut off at night and on the weekends
    - Variable Speed Drive motors in many sewer/water pump stations
- Energy Efficiency Policy for City employees, such as turning lights and computers off
- Installation of light-emitting diode (LED) traffic signal light bulbs and pedestrian crossing signals
- Installation of solar-powered street radar signs

Environmental and Public Health

- Policy / program for award of City grant funds for local environmental projects
- Water treatment plant processes to reduce chemical use (e.g. UV treatment)
- Pre-Treatment inspections for fats, oils, and greases – sewer spill prevention
- Sewer and Storm-Drain line inspections to prevent spills

- Existing Environmentally Preferable Procurement Policy (City Policy No. 201-2-6)
- Clean Ocean Program (Water Quality):
  - Street sweeping, Runoff treatment
  - Site inspections: municipal, commercial, industrial and construction sites
  - Pollution reporting hotline (949-366-1553), investigation, and spill response
  - Water quality code enforcement
  - Public education and outreach, Water quality monitoring

Urban Nature

- Integrated Pest Management (IPM) program to reduce use of chemicals in Golf and Parks maintenance
- Sand replenishment policy and opportunistic sand replenishment program
- Long-term sand replenishment project (study in progress)
- Planned expansion of City park and trail system

Urban Design

- LEED Silver Certification for planned Civic Center Renovation
- Incorporation of sustainable/green building design features in City projects:
  - La Pata/Vista Hermosa Sports Park
  - Fire Station/Senior Center
- Enforcement and compliance with State Energy Code

Transportation

- Some alternative fuel City vehicles (propane, hybrid)
- Fleet Maintenance
  - Recycling of oils, coolant, tires, batteries, plastic
  - Use of water-based parts and brake cleaners
- Implementation of traffic signal synchronization or optimization system
- Programs to repair existing sidewalks and install new sidewalks
- Traffic Task Force to address “hot spots” and reduce congestion

PROPOSED SUSTAINABILITY RECOMMENDATIONS

Proposed environmental sustainability actions that the City should consider pursuing have been organized into the major focus areas previously discussed. These proposed actions are presented as summary tables on the following pages, each of which includes the following information:

- Goal: A concise description of the City's objectives for a particular focus area.
- Indicator: A measure of progress toward an identified goal.
- Target: A measurable quantity to define success for a specific indicator.
- Action: The action or program needed to meet the indicator target.
- Responsible Party: Listing of the key parties that will be responsible for implementing the identified actions.

The tables also include "rankings," on a 1- to 5-point scale, to help gauge the feasibility, cost and benefit of potential actions as follows:

- Feasibility: how difficult or time consuming would the activity be to implement.
    - 1 is easiest to implement, 5 is hardest
- Cost: funds needed to implement the activity.
    - 1 is inexpensive, 5 is costly
- Benefit: anticipated benefit that would be received from implementing the activity.
    - 1 is small benefit, 5 is large benefit

The rankings are qualitative and not based on any detailed cost estimates. The rankings represent the collective judgment of the Task Force, and are intended only to provide a general sense of the feasibility, cost and benefit of the recommended potential actions. These rankings were considered when developing the anticipated implementation timelines discussed later in the report.

Resource Conservation – Solid Waste Reduction/Recycling

Goals

- Reduce consumption of non-renewable materials.
- Reduce waste generation.
- Increase recycling.

Indicator	Target	Action	Responsible Party	Feasibility	Cost	Benefit
• Total amount of waste generated in City • Amount of waste diverted from landfill	• 10% total waste reduction by 2015 (compared to 2000 baseline) • 75% landfill diversion by 2015	Increase Construction and Demolition diversion to 75% starting 2011 – update solid waste ordinance.	• City	2	2	4
		Expand mandatory recycling to commercial customers starting 2012 – develop ordinance (likely requires rate increase & Prop. 218 notice)	• City • Franchise waste hauler	2	2/3	5
		Pursue a food waste collection/diversion program after pilot project finishes in 2011 (likely requires rate increase and Prop. 218 notice)	• City • Franchise waste hauler	4	3	4
		Strive to minimize paper use in City operations and consider a City policy	• City	1	1	5
		Increase awareness, education and community outreach opportunities for waste reduction, recycling and composting options. City to encourage preservation, restoration and adaptive re-use of historic structures as a means to reduce consumption and waste while preserving culture and investments from past generations.	• City • Franchise waste hauler • SC Green	1	1	3

Indicator	Target	Action	Responsible Party	Feasibility	Cost	Benefit
		Support statewide and national product stewardship policies and programs that encourage manufacturers to design recyclable products and to take back products at the end of their useful life.	• City • SC Green	1	1	5
		Expand the City's existing policy that prohibits use of Styrofoam food/beverage containers at City facilities to include all food service businesses within the City. Implement new City Ordinance by the end of 2010.	• City	1	2	3/4
		By end of 2010, develop a plan to address single-use plastic and paper grocery bags.	• City • SC Green	2	1	3/4

Resource Conservation – Water Use

Goals

- Reduce per capita consumption of water through implementation of water conservation programs and educational outreach.
- Reduce reliance on imported water.

Indicator	Target	Action	Responsible Party	Feasibility	Cost	Benefit
Reduction in potable water used in the City's service area.	20% per capita by 2020 (compared to 1995-2005 composite baseline of 180 gpcd for DWR Hydrologic Region 4).	Implement and enforce the City's water conservation ordinance, which was updated in 2009.	City	2	2	4
		Complete water efficiency use surveys of all City facilities.	City	1	2	4
		Continue with conservation-based tiered water rate structure.	City	1	1	4
		Increase awareness, education and community outreach opportunities for water conservation options.	• City • SC Green	1	1	3
Percent local vs. imported water sources.	15% by the end of FY2010, and 24% by FY2016 (8% well water and 16% recycled water).	Complete recycled water system expansion (currently under design).	City	2	4	4
Amount of recycled water generation capacity.	Double existing generation and transmission capacity by FY2016.					

Resource Conservation – Energy Use

Goals

- Reduce energy use by educating and promoting civic participation in energy efficiency and conservation.
- Reduce the use of non-renewable energy sources and increase renewable generation within the City.

Indicator	Target	Action	Responsible Party	Feasibility	Cost	Benefit
Reduction in energy use by City	• 20% by 2015 (compared to baseline) • Energy saving practices become business as usual	• Determine Baseline for city facilities and track performance using Energy Star Portfolio Manager. • Perform Energy Efficiency and Demand Response audits. • Consider potential for LEED Operations and Maintenance certification for appropriate existing City facilities. • Update General Plan Energy Conservation Element. • Benchmark and sub-meter all City facilities by 2012. • Continue strong energy code compliance. • Consider point-of-sale efficiency retrofit requirements.	• City • SDG&E	2	2	4
Increase in % renewable energy generation	Significant upward trend	• Create an AB811 financing program in City. • Research opportunities for PPAs and Sustainable Communities Program (SDG&E) for renewable power on City Facilities. • Pursue grant or other funding to implement a solar photovoltaic energy system on at least one City facility by end of 2010.	• City • SDG&E	3	3	4
Increase community awareness and knowledge of energy conservation	Significant increases trend in participation in energy saving practices and	• Continue to promote and educate residents on benefits energy efficiency and solar power generation. • Promote utility sponsored programs and trainings to city staff, local businesses and residents. • Approach SDG&E about forming a local government	• City • SDG&E • SC Green	1	2	3

Indicator	Target	Action	Responsible Party	Feasibility	Cost	Benefit
	programs	partnership to tap additional resources. • Promote Energy Education in school programs (i.e. PEAK)				

Environmental and Public Health

Goals

- Protect and enhance environmental and public health by reducing or eliminating the use of hazardous and toxic materials, minimizing pollutants entering the air, soil, and water.
- Educate and encourage public involvement to reduce and eliminate the use of and ingestion of hazardous and toxic materials.

Indicator	Target	Action	Responsible Party	Feasibility	Cost	Benefit
Total amount of citywide greenhouse gas emissions.	At least 25% below 2005 levels by 2020 for City operations, and meet AB32 goals for citywide (i.e. meet 2005 levels by 2020)	• Prepare a citywide greenhouse gas (GHG) emission inventory and develop a baseline in FY2011. • Develop a Climate Action Plan by end of FY2011. • Consider an anti-idling zone ordinance (e.g. cars waiting for students in school pick-up zones).	City	1	2	4
Amount of toxic chemicals used by City.	Downward trend.	Update and implement a more stringent Environmentally Preferred Purchasing Policy (EPP) by end of FY 2011.	City	1	2	5
# days City beaches are posted with health warnings or closed.	Downward trend.	• Continue to implement Clean Ocean program. • Start Bacteria Source Identification Study by 2011 and implement control measures.	City	1	2/3	4
Compliance with NPDES stormwater permit.	No violations from Regional Board.					

Indicator	Target	Action	Responsible Party	Feasibility	Cost	Benefit
Promote public health by encouraging locally grown organic foods.	Upward trend.	• Provide education to introduce and promote organic gardening. • Encourage pursuit of local community organic gardens through education and local grant policy/program.	• City • SC Green • SC Garden Club	3	2	5

Urban Nature

Goals

- Develop and maintain a parks and open space system that supports natural local habitat, and provides both passive and active recreation opportunities.
- Educate and promote public involvement to enjoy recreation, nature, and support natural local habitat preservation and enhancement.

Indicator	Target	Action	Responsible Party	Feasibility	Cost	Benefit
Ensure accessible public park or recreational open spaces.	Provide public access of green spaces within a 10 minute walk by 2015.	• Look for opportunities to create small neighborhood green/open spaces. • Expand/interconnect trail system.	City	3	2/3	5
Create an urban forest and tree preservation program.	Tree canopy of not less than 50% of available sidewalk planting sites.	• Update City tree inventory (including location, height, girth, and canopy spread). • Pursue a tree preservation ordinance.	City	3	2	5
• Protect areas with native wildlife and connectivity of natural systems. • Protect critical habitat corridors and key habitat characteristics.	Upward trend.	• Identify appropriate General Plan elements (including identifying critical canyon, wetland, & coastal habitat corridors). • Plant only native and/or drought tolerant varieties on all City properties. • Educate public on native/drought tolerant plant benefits, and encourage replanting projects. • Restore critical habitat corridors by removing invasive species and replanting native trees/plants. • Create signage on Coastal Trail and Vista Hermosa Park for educational outreach about critical habitats and native plant/animal species.	• City • SC Green • SC Garden Club • Other agencies and environmental groups	3	2	5

Urban Design

Goal

- Reduce or eliminate the environmental impacts of buildings by implementing resource-efficient structures.

Indicator	Target	Action	Responsible Party	Feasibility	Cost	Benefit
New or major rehabilitations of City facilities that can be considered sustainable.	Upward trend	• Include green building design elements in all new and significant rehabilitations of City building and facility projects by implementing these features to the extent feasible on an ongoing basis ("standard practice"). • Evaluate issues of third-party certification (e.g. LEED).	City	2	3	4
Number of private development projects exceeding State Green Building or Energy Code requirements	Upward trend	• Develop an incentive program/policy to encourage incorporation of green building features/design (beyond existing code requirements) in private development projects, with emphasis toward existing building stock. • Consider plan to waive building permit fees[3], and provide expedited plan check services, for all projects that exceed State Green Building or Energy Code requirements.	City	1	2	4
		Provide informational resources on code requirements, green building resources and workshops; and utility rebates and incentives for energy efficiency improvements	• City • SC Green	1	1	3
		Evaluate existing housing rehabilitation loan program (HUD program) to include/emphasize green building features.	City	1	2/3	4
Future items for consideration: • Adopt mandatory State green building standards for commercial buildings.						

[3] This is limited to the actual building permit, and does not include any water, parks or other fees that may be applicable to a particular project.

- Update City Specifications, Codes and Standards to reflect sustainable practices.
- Develop/enforce City Green Building Guidelines for use in all major renovations and construction within City, and train City staff to implement.
- Develop grants/funding or provide education and access to grants/funding for underprivileged residents for Green Building efforts.
- Consider a mandatory Green Building ordinance including potential for net zero energy buildings.

Transportation

Goals:

- Educate and promote public involvement to reduce automobile dependency in favor of alternative, sustainable modes of transportation.
- Minimize and, where possible, eliminate motor vehicle pollution and congestion.

Indicator	Target	Action	Responsible Party	Feasibility	Cost	Benefit
Develop plan for better integration of I-5 and local street system (e.g. signal synchronization and interchange/access improvements).	Implement 2030 projects within City boundary.	Continue coordination with Caltrans, OCTA and other agencies regarding the long term strategic plan.	City & other agencies	3	2	3
Continue support of Caltrans RR double tracking / undergrounding in I-5 corridor (per Caltrans business plan)—includes commuter link in Pico valley area	Relocate existing coastal tracks to I-5 corridor route.	• Continue City's stated position in support of this plan. • Incorporate into General Plan as appropriate.	City	1	1	5
Bike enhancements: • Work to become a bike friendly community (League of American Bicyclists). • Add more bike racks in strategic public locations, including potential covered parking. • Improve route marking and way finding signage. • Increase bike lanes & paths (% of total city miles streets with bike lanes, and total miles of bike paths).	• Develop a new policy/plan • Upward trend • Greater # of signs • Upward trend	• Evaluate requirements and opportunities for this designation. • Conduct study to identify potential locations & costs • Review existing signage on key designated bike routes for potential improvements • Develop Bicycle & Pedestrian Master Plan and incorporate into General Plan. • Increase public education & awareness efforts.	• City • City • City/public • City	4 2 2 3	3/4 2 2 3	3 3 3 3

Indicator	Target	Action	Responsible Party	Feasibility	Cost	Benefit
• Evaluate strategies to reduce % of commute trips by single occupancy vehicles	• Downward trend	• Update Growth Management element of General Plan	• City	1	2	2/3
• Explore an intra-city transit plan to move people, e.g. trolley, green taxi, scooter rentals, etc.	• Develop plan	• Complete planning study • Continue OCTA coordination to maintain existing bus routes	• City/other agencies			
Alternative fuel & vehicle:						
• Provide plug-in posts for electric vehicles.	• Increased #	• Install charging stations	• City/SDG&E	4	4	2
• Develop an alternative fuel station (for city and public).	• Conduct study in FY13	• Identify location, design, permit and construct	• City or private partner	3	5	4
• Future fleet vehicles should be alternative fuel.	• Develop a City policy in FY12	• Develop policy and include in budget	• City	2	4	3/4
• Conduct a pilot project at the water treatment plant to convert algae to biofuel.	• Conduct study in FY14	• Investigate opportunity: develop scope and include in budget if appropriate	• City	1	2	2
• Continue existing program for pedestrian opportunities by installing sidewalks where they are currently missing	• Upward trend	• Continue to implement CDBG sidewalk program • Continue to implement permit requirements for new sidewalk construction—complete policy	City	1	2	5

IMPLEMENTATION

Timeline

The Sustainability Action Plan provides a high-level road map to help guide efforts to transition City government and the San Clemente community toward a more sustainable future. This plan will be implemented over time as specific policies or ordinances, programs and projects are developed to address the recommended sustainability initiatives. Progress to implement this plan will depend on availability of staff and funding resources. This plan includes many actions which cannot be pursued at the same time, and which will require varying levels of effort and time to complete. The table below summarizes actions that are already in progress or ongoing, and also provides a general prioritization of the recommended actions to indicate which should be pursued in the near, mid-, and long term. Where applicable, an estimated target date is also provided, and reflects City staff's workload and anticipated ability to implement a specific action item (for those action items where the City is the primary responsible party). This action plan is intended to be flexible and thus the relative priority of certain actions could change, some actions could be deleted, and new actions could be added with City Council approval.

Action	Responsible Party	Fiscal Year Target
Ongoing / In Progress		
Increase awareness, education and community outreach opportunities for waste reduction, recycling and composting options.	City (Env. Programs), Franchise Hauler & SC Green	Ongoing
City to encourage preservation, restoration and adaptive re-use of historic structures as a means to reduce consumption and waste while preserving culture and investments from past generations.	City (Env. Programs, Planning), Franchise Hauler & Sc Green	2011-Ongoing
Implement and enforce the City's water conservation ordinance, which was updated in 2009.	City (Utilities)	Ongoing
Continue with conservation-based tiered water rate structure.	City (Utilities)	Ongoing
Increase awareness, education and community outreach opportunities for water conservation options.	City (Utilities) & SC Green	Ongoing
Update General Plan Energy Conservation Element.	City (Planning)	In Progress

Action	Responsible Party	Fiscal Year Target
Continue to promote and educate residents on benefits energy efficiency and solar power generation.	City (Env. Programs)	2011 – Ongoing
Continue to implement Clean Ocean program.	City (Env. Programs)	Ongoing
Expand/interconnect trail system.	City (BP&R)	Ongoing
Identify appropriate General Plan elements (including identifying critical canyon, wetland, & coastal habitat corridors).	City (Planning)	In Progress
Educate public on native/drought tolerant plant benefits, and encourage replanting projects.	SC Garden Club City (Utilities)	Ongoing
Include green building design elements in all new and significant rehabilitations of City building and facility projects by implementing these features to the extent feasible on an ongoing basis ("standard practice").	City (Public Works, Community Development and BP&R Departments)	Ongoing
Continue coordination with Caltrans, OCTA and other agencies regarding the long term strategic plan. Continue City's stated position in support of this plan. Incorporate into general Plan	City (Engineering)	Ongoing
Develop Bicycle/Pedestrian Master Plan	City (Planning, Engineering)	In Progress
Update Growth Management element of General Plan	City (Planning)	In Progress
Continue OCTA coordination to maintain existing bus routes	City (Engineering)	Ongoing
Continue to implement CDBG sidewalk program	City (Planning, Engineering)	Ongoing
Promote utility sponsored programs and trainings to city staff, local businesses and residents.	City (Env. Programs) and SDG&E	Ongoing/as needed
Evaluate requirements and opportunities for a Bike Friendly designation.	City (Planning)	In Progress (part of Bike/Ped Master Plan).
Conduct study to identify potential locations & costs for bike racks	City (Planning)	Same as above.

Action	Responsible Party	Fiscal Year Target
Review existing signage on key designated bike routes for potential improvements	City (Planning)	Same as above.
Plant only native and/or drought tolerant varieties on all City new or reconstruction projects.	City (Public Works and BP&R)	Ongoing
Consider opportunities to create small neighborhood green/open spaces, and identify a "small neighborhood park" designation in the General Plan.	City (Planning, BP&R)	In Progress (part of General Plan update)
Near Term		
Increase Construction and Demolition diversion to 75% – update solid waste ordinance.	City (Env. Programs)	2011
Create an AB811 financing program in City.	City (Engineering)	2011
Pursue grant or other funding to implement a solar photovoltaic energy system on at least one City facility.	City (Engineering)	2011
Prepare a citywide greenhouse gas (GHG) emission inventory and develop a baseline.	City (Engineering)	2011
Develop a Climate Action Plan by end of FY2010.	City (Engineering)	2011
Start Bacteria Source Identification Study by 2011 and implement control measures.	City (Env. Programs)	2011
Complete planning study for tri-city trolley	City (Engineering)	2011
Continue to implement permit requirements for new sidewalk construction—complete policy	City (Engineering)	2011
Pursue a tree preservation ordinance.	City (BP&R)	2011
Provide education to introduce and promote organic gardening.	SC Green City (Env. Programs)	2011
Mid-Term		
Complete water efficiency use surveys of all City facilities.	City (Utilities)	2012
Update City tree inventory (including location, height, girth, and canopy spread).	City (BP&R)	2012

Action	Responsible Party	Fiscal Year Target
Research opportunities for PPAs and Sustainable Communities Program (SDG&E) for renewable power on City Facilities.	City (Engineering)	2012
Update and implement a more stringent Environmentally Preferred Purchasing Policy (EPP).	City (Env. Programs)	2012
Expand mandatory recycling to commercial customers – develop ordinance (likely requires rate increase and Prop. 218 notice)	City (Env. Programs) & Franchise Hauler	2012
Determine Baseline for city facilities and track performance using Energy Star Portfolio Manager.	City (Engineering)	2012
Provide informational resources on code requirements, green building resources and workshops; and utility rebates and incentives for energy efficiency improvements	City (Engineering)	2012
Develop policy and include in budget for green fleet vehicles	City (Fleet)	2012
Consider potential for LEED Operations and Maintenance certification for appropriate City facilities	City (Engineering)	2013
Approach SDG&E about forming a local government partnership to tap additional resources.	City (Engineering) and SC Green	2013
Promote Energy Education in school programs (i.e. PEAK)	City (Engineering)	2013
Evaluate issues of third-party certification (e.g. LEED).	City (Engineering)	2013
Implement food waste collection/diversion program after pilot project finishes in 2011 (likely requires rate increase and Prop. 218 notice)	City (Env. Programs) & Franchise hauler	2013
Evaluate existing housing rehabilitation loan program (HUD program) to include/emphasize green building features.	City (Planning)	2013
Study to identify location, design, permit and construct an alternative fuel station	City (Engineering)	2013
Long Term		
Develop an incentive program/policy to encourage incorporation of green building features/design (beyond existing code requirements) in private development projects, with emphasis toward existing building stock.	City (Engineering, Building)	2014
Waive building permit fees, and provide expedited plan check services, for all projects that exceed State Green Building or Energy Code requirements.	City (Building, Engineering)	2014

Action	Responsible Party	Fiscal Year Target
Create signage on Coastal Trail and Vista Hermosa Park for educational outreach about critical habitats and native plant/animal species.	City (BP&R)	2014
Install electric vehicle charging stations	City (Engineering)/SDG&E	2014
Restore critical habitat corridors by removing invasive species and replanting native trees and plants.	Other agencies and environmental groups	2015
Investigate opportunity: develop scope and include in budget for possibility to convert algae to biofuel at Water Reclamation Plant.	City (Engineering, Utilities)	2015
Complete recycled water system expansion (currently under design).	City (Utilities)	2016

Progress

To monitor implementation progress, the City's Sustainability Coordinator will prepare an annual report will be submitted to the City Council. The report will provide information to the City Council and San Clemente community members on progress toward meeting goals and targets of the Plan, and will identify any issues that impact the City's ability to meet established goals and targets. Staff will coordinate with San Clemente Green in the development of the annual progress report, and more often as needed to obtain feedback and assistance with development and implementation of specific action items.

APPENDIX A: GLOSSARY OF TERMS AND ACRONYMS

AB: Assembly Bill

AB 32: The Global Warming Solutions Act. 2006. In Fall 2006, the California legislature passed legislation mandating significant reductions in statewide GHG emissions starting first with "stationary sources" such as power plants and petroleum refineries. AB 32 calls for a return to 1990 greenhouse gas levels by the year 2020 and a reduction to 80 percent of 1990 levels by 2050.

AB 811: In 2008, the California legislature passed AB 811, the Energy Independence Loan Program, which enables a city to lend money to homeowners to pay for efficiency upgrades and renewable energy projects, where the loan would be repaid through property tax assessments.

AB 939: The Integrated Waste Management Act of 1989. Passed in the California legislature because of the increase in waste stream and the decrease in landfill capacity, AB 939 mandated a reduction of waste being disposed. Jurisdictions were required to meet diversion goals of 25% by 1995 and 50% by the year 2000. The bill was re-enacted in 2008 as AB 1016. The 50% reduction rate remains the same, but the calculations used to measure achievement of this goal have been simplified.

Alternative Fuel Vehicles: Vehicles that operate on fuels other than gasoline or diesel. Alternative fuel vehicles include those that operate using compressed natural gas (CNG), liquid natural gas (LNG), propane, electricity, hybrid of gasoline and electricity, and hydrogen.

Alternative (and/or Sustainable) Transportation: Forms of transportation which include transportation by public transit (bus or rail), bicycle, walking, or alternative fuel vehicles.

C&D: Construction and Demolition

Community-Wide GHG Emissions Inventory: An estimate of the quantity of GHG emissions which the community as a whole generates for a specific analysis year. The community inventory includes the quantities of electricity and fuels used in the residential, commercial, industrial, government, and transportation sectors, along with the amount of waste produced and landfilled in the analysis year, as well as the quantity of GHG emissions produced by each of these sectors.

Distributed Generation: Refers to generation of electricity at or near the location where that electricity will be used. This differs from traditional electricity generation, which occurs at centralized power plants and is distributed over hundreds of miles to millions of customers through the electricity "grid". Examples include solar photovoltaic systems and small wind generators.

Diversion: Refers to all waste that is kept out of a landfill through recycling, beneficial reuse, composting, or other means.

Energy Audit: An energy audit is an inspection, survey and analysis of energy flows in a building, process or system to understand the energy dynamics of the system under study. Typically an energy audit is conducted to seek opportunities to reduce the amount of energy input into the system without negatively affecting the output(s). When the object of study is an occupied building then reducing energy consumption while maintaining/improving human comfort, health and safety are of primary concern.

Energy Efficiency: Using less energy to provide the same level of energy service. An example would be insulating a home to use less heating and cooling energy to achieve the same temperature. Another example would be installing fluorescent lights and/or skylights instead of incandescent lights to attain the same level of illumination. Efficient energy use is achieved primarily by means of a more efficient technology or process rather than by changes in individual behavior.

Environmentally Preferable: Any product, service, activity or process that has a lesser or reduced effect on human health and the environment when compared to other products, services, activities or processes that serve the same purpose.

GHG: Greenhouse Gas. Gas in an atmosphere that absorbs and emits radiation within the thermal infrared range. This process is the fundamental cause of the greenhouse effect, which causes warming of the atmosphere of the Earth.

ICLEI: ICLEI-Local Governments for Sustainability, USA. A membership association of local governments committed to advancing climate protection and sustainable development.

LEED: The Leadership in Energy and Environmental Design. A Green Building Rating System, developed by the U.S. Green Building Council, provides a suite of standards for environmentally sustainable construction. LEED ratings are based on a point system. Points are awarded for various elements that can be chosen during the planning, design, and building process.

Renewable Energy: Energy generated from natural resources—such as sunlight, wind, rain, tides and geothermal heat—which are naturally replenished**.**

SB: Senate Bill

SB 375: The Transportation and Land Use Planning Act. 2008. SB 375 builds on climate change legislation signed into California law in 2006 (AB 32) and the regional “blueprint plan” developed in the Sacramento region. The bill’s core provision is a requirement for regions with high air pollution to develop a “Sustainable Communities Strategy” in order to reduce greenhouse gas emissions from cars.

Solid Waste: Any garbage, refuse, sludge and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operation, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges, or sources of special nuclear, or by-product material.

U.S. EPA: The United States Environmental Protection Agency

APPENDIX B: CARB SCOPING PLAN OVERVIEW

California's road map for achieving the goals of AB 32 is the Air Resource Board Scoping Plan. The Scoping Plan outlines the direction for the combinations of policies, programs, and practices needed to reduce State-wide emissions by 15% below current levels (2003-2004) – a level equivalent to 1990 -- by 2020. Given projected trends, this would be approximately 30% below "business-as-usual" levels anticipated for 2020 in the absence of interventions. The State anticipates continuing and presumably intensifying these actions to achieve nearly an 80% reduction by 2050. This transformation represents a permanent shift in how energy is used and supplied to meet the needs of Californians. Key Scoping Plan initiatives include:

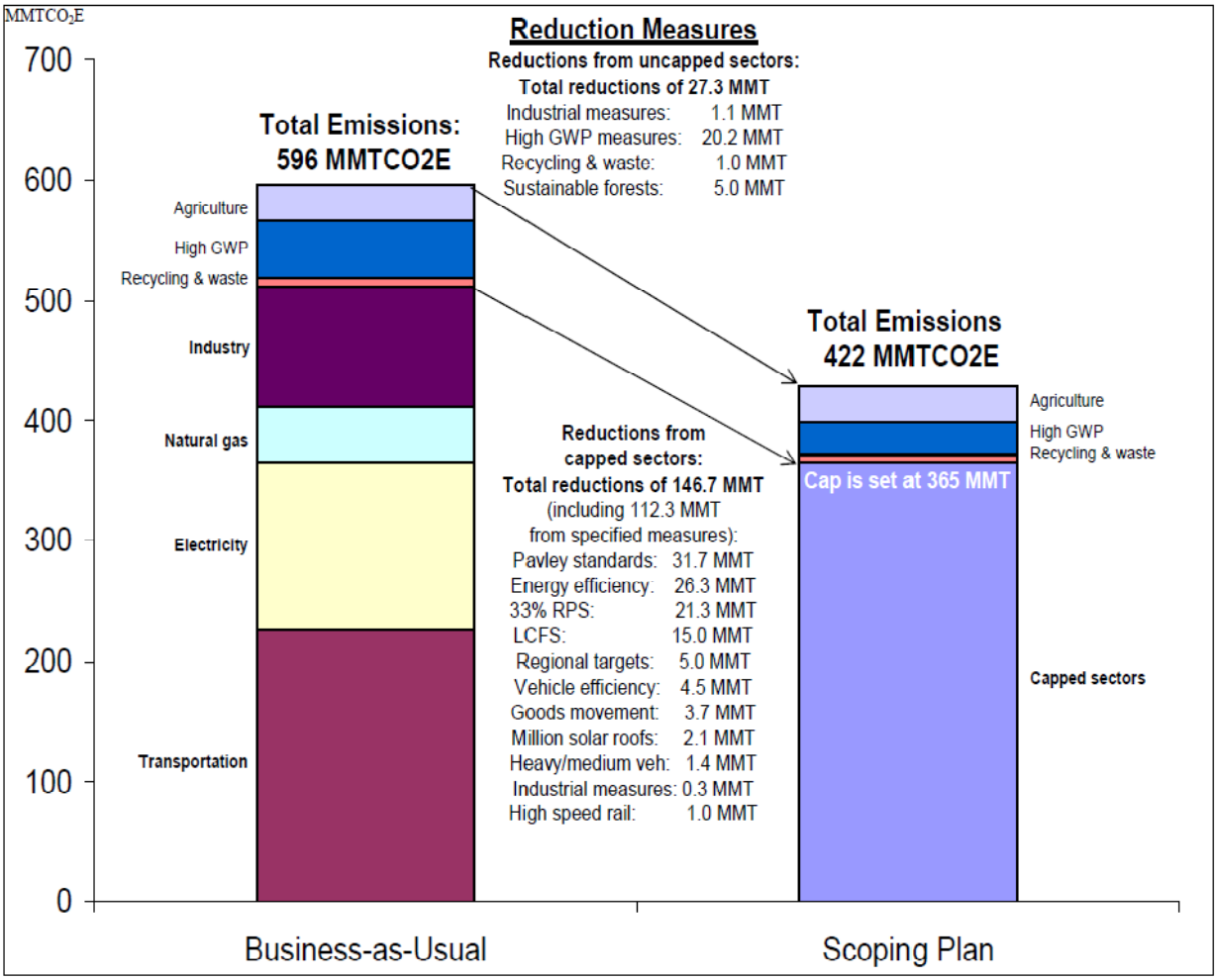
- Energy efficiency
    - Title 24 for building energy efficiency
        - California's Energy Efficiency Standards for Residential and Nonresidential buildings strives to help Californians reduce energy bills, increase energy delivery system reliability, and contribute to economic prosperity. Title 24 helps reduce the emissions intensity of new buildings by setting performance standards for certain building-related energy loads.
    - Title 20 for appliance energy efficiency
        - California's Appliance Efficiency Regulations address 21 categories of Federally-regulated and non-Federally regulated appliances, ranging from air conditions to exit signs. Title 20 helps reduce the emissions intensity of new and existing buildings by setting performance standards systems often used in buildings and, in some cases, public infrastructure.
    - California Public Utilities Commission Energy Efficiency Strategic Plan
        - The CPUC's Strategic Plan describes a series of "big, bold" initiatives to improve energy efficiency and address a variety of energy and emissions-related issues. Two of the most important goals include zero net energy residential buildings by 2020 and zero net energy commercial buildings by 2030. These ambitious goals would dramatically reduce emissions associated with new buildings.
- Electricity generation
    - Renewables Portfolio Standard
        - The Renewables Portfolio Standard (RPS) requires a minimum of 20% of California's electricity be provided from clean, carbon-free sources including solar, wind, biomass, and small hydropower by 2020.

- Governor Schwarzenegger has issued an Executive Order seeking a more aggressive, non-binding, target of 33% renewables by 2020.
- The implementation of the RPS will reduce the emissions intensity of purchased electricity and help reduce emissions associated with buildings and infrastructure.

- Vehicle fuel economy
  - CAFE
    - The Federal government sets fuel economy standards for new cars and trucks. The 2007 Energy Bill requires the National Highway Traffic Safety Administration to develop phased requirements to achieve fleet-wide average performance of 35 miles per gallon by 2020. On May 19, 2009, President Obama announced a new National Fuel Efficiency Policy that specifically aims to further improve fuel economy and reduce greenhouse gas emissions. The new policy proposes to require a fleet-wide average of 35.5 mpg by 2016 starting with model year 2012. However, the Administration's proposed policy as not yet been fully implemented and details not yet sufficient to allow for quantification in this CAP.
  - AB 1493
    - California has adopted more stringent vehicle fuel economy standards, frequently referred to as the Pavley Rules. These rules would provide for faster and more aggressive improvements in fuel economy. However, the implementation of these standards requires a waiver from the US EPA under the Clean Air Act. This waiver has not yet been issued, and this Climate Action Plan is based on CAFE standards. Adoption of Pavley rules would significantly reduce transportation-related emissions and help the City meet its carbon budget.
    - The implementation of more stringent fuel economy standards will reduce the emissions intensity of automobiles.

- Vehicle fuels
  - Low Carbon Fuel Standard
    - California's Low Carbon Fuel Standard, Executive Order S-1-07 signed by Gov. Schwarzenegger, requires an approximately 10% reduction in the carbon intensity of California's motor fuels. This is the first standard to look specifically at the carbon content of transportation related fuels. The LCFS is also recognized as a "discrete early action item" by the ARB in the Scoping Plan.

- Vehicle miles traveled
    - SB 375
        - Vehicle technology and fuels are two of the three major components of transportation emissions. Projections show that predicted advances in these two components alone will not be enough to achieve reduction goals. Reductions in transportation demand and shifts in travel mode will also be required. SB 375 is intended to help reduce vehicle miles traveled by promoting compact, connected land use patterns that locate jobs and housing closer together.



The implementation of these policies and programs is enhanced through supporting legislation, notably:

- SB 97 clarifies requirements to address greenhouse gas emissions through California Environmental Quality Act processes. SB 97 affirms the requirement to consider climate change, greenhouse gas emissions, and energy efficiency in CEQA-related assessments.

- AB 811 allows local governments to establish assessment districts to fund energy efficiency and renewable energy projects. Modeled on the successful Berkeley First program, AB 811 provides an important opportunity to provide resources for improvements to existing homes.