SUSTAINABILITY COMMISSION
CITY OF PALM SPRINGS, CALIFORNIA
www.palmsprings-ca.gov www.yoursustainablecity.com

October 15, 2019
5:00 PM

REGULAR MEETING AGENDA

Palm Springs City Hall
Large Conference Room
3200 E Tahquitz Canyon Way
Palm Springs, CA 92262

COMMISSIONERS		
Roy Clark, Chair	**David Freedman**	**John Goins**
Robert McCann, Vice Chair	**Jennifer Futterman**	**Lani Miller**
Carl Baker	**Sandra Garratt**	**T Santora**
Jim Flanagan	**Greg Gauthier**	

Staff representatives: Patrick Tallarico, Manager, Office of Sustainability; Dan DeGarmo, Program Coordinator; Gary Calhoun, Recycling Coordinator

City of Palm Springs Vision Statement: Palm Springs aspires to be a unique world-class desert community where residents and visitors enjoy our high quality of life and a relaxing experience. We desire to balance our cultural and historical resources with responsible, sustainable economic growth and enhance our natural desert beauty. We are committed to providing responsive, friendly, and efficient customer service in an environment that fosters unity among all our citizens.

Please **MUTE OR TURN OFF** all audible electronic devices for the duration of this meeting. Thank you!

CALL TO ORDER
ROLL CALL
ACCEPTANCE OF AGENDA

CITY MANAGER / STAFF COMMENTS **(20 MINUTES)**
1. September 18, October 2, and October 23, 2019 City Council Meetings Update
2. Branding/Business Cards Status
3. ONE-PS Brown Bag Lunch October 17, 2019

PUBLIC COMMENTS: This time is for members of the public to address the Sustainability Commission on Agenda items and items of general interest within the subject matter jurisdiction of the Commission. The Commission values your comments but, pursuant to the Brown Act, cannot take action on items not listed on the posted Agenda. Three (3) minutes are assigned for each speaker.

A. WELCOME AND INTRODUCTIONS **(5 MINUTES)**

B. MEETING MINUTES **(5 MINUTES)**
September 17, 2019 Regular Meeting Minutes

C. RECYCLING REPORT - Gary Calhoun **(5 MINUTES)**

D. OLD BUSINESS **(25 MINUTES)**
1. Student Rep
2. Fountain Grass Eradication
3. Community Garden Naming Plan
4. Leaf Blower Ban Enforcement

E. NEW BUSINESS **(35 MINUTES)**

1. Review of Key Elements of Single-Use Plastics Draft Ordinance
2. Discuss Climate Action Plan and Potential Additional Efforts to Address Climate Change

F. SUBCOMMITTEE AND COMMISSIONER REPORTS **(35 MINUTES)**

1. Standing Subcommittee on Solar and Green Building - Commissioners Freedman and Flanagan
   a. EV Charging: Locations and Costs; Additional Funding
   b. Planned Energy Code Training on November 6, 2019 at UCR Palm Desert
   c. Solar Zoning Ordinance
   d. Building Code
2. Standing Subcommittee on Waste Reduction – Manager Tallarico, Vice Chair McCann, Chair Clark, Commissioner Miller
   a. Confirm Plan for Signage for Public Trash and Recycling Containers
   b. City and PSDS Websites
   c. Palm Springs Cultural Center Recycling Experiment
   d. Visits to Businesses Non-Compliant With Recycling or Organics Requirements
3. Standing Subcommittee on World Environment Day – Commissioners Futterman, Gauthier, Santora, Garratt
4. Standing Subcommittee on Water Conservation – Commissioners Freedman and Miller
5. Ad Hoc Subcommittee on Earth Day – Commissioner Baker
6. Ad Hoc Subcommittee on Walkability & Pedestrian Planning - Commissioners Gauthier, Futterman
   a. Safe Routes to Schools Project and Pedestrian Master Plan.
7. Ad Hoc Subcommittee on Crosswalks and Pedestrian Safety – Commissioners Flanagan, Goins; Christine Hammond
8. Ad Hoc Subcommittee on Bicycle Routes and Cycling – Commissioner Flanagan
9. Ad Hoc Subcommittee on Night Sky – Vice Chair McCann and Commissioner Flanagan
10. Big Horn Sheep Habitat Protection – Commissioner Flanagan, Manager Tallarico
11. Wellness – Commissioner Baker
12. Desert Community Energy, Community Advisory Committee – Commissioners Baker, Freedman, Miller

G. COMMISSIONER COMMENTS AND UPCOMING AGENDA DEVELOPMENT **(5 MINUTES)**

H. ADJOURNMENT - The meeting of the Sustainability Commission will adjourn to the Regular Meeting of the Sustainability Commission to be held at 5:00 p.m. on Tuesday, November 19, 2019, in the City Hall Large Conference Room, 3200 E Tahquitz Canyon Way, Palm Springs CA 92262. The Sustainability Commission's regular meeting schedule is at 5 p.m. the third Tuesday each month except August unless otherwise noted or amended.

It is the intention of the City of Palm Springs to comply with the Americans with Disabilities Act (ADA) in all respects. If, as an attendee or a participant at this meeting, you need special assistance beyond what is normally provided, the City will attempt to accommodate you in every reasonable manner. Please contact the Office of the City Clerk at (760) 323-8204 at least 48 hours prior to the meeting to inform us of your needs and to determine if accommodation is feasible.

Pursuant to G.C. Section 54957.5(b)(2) the designated office for inspection of records in connection with the meeting is the Office of Sustainability, City Hall, 3200 E. Tahquitz Canyon Way, Palm Springs, CA 92262. Agenda and staff reports are available on the City's website www.palmspringsca.gov. If you would like additional information on any item appearing on this agenda, please contact the Office of Sustainability at 760-323-8214.

AFFIDAVIT OF POSTING: I, Patrick Tallarico, Manager of the Office of Sustainability of the City of Palm Springs, California, certify this Agenda was posted at or before 5:00 p.m. on October 11, 2019, as required by established policies and procedures.

Patrick Tallarico, Manager of the Office of Sustainability

City of Palm Springs

Office of Sustainability

TO: Sustainability Commission

FROM: Patrick Tallarico, Manager

SUBJECT: Climate Action Plan Status

DATE: October 9, 2019

In recent weeks, Council Member Holstege requested that the City assess its implementation of our Climate Action Plan and related goals and consider what additional steps we should be taking as a City to address the urgent concerns that have been expressed about climate change. This could include the development of a "climate emergency resolution" similar to the City of Austin as detailed in the article below.
https://www.smartcitiesdive.com/news/austin-tx-city-council-declares-climate-emergency/560626/

In response, I worked with Chair Clark to add an agenda item to the October 15th Sustainability Commission agenda to reintroduce Commission members to the Climate Action Plan and begin discussions about how to move forward with an assessment and determine whether additional actions are needed. This memorandum provides some background for that discussion.

Goals and Plans

The City's current goal as stated in the Sustainability Plan is to reduce greenhouse gas emissions to 1990 levels by the year 2020. This is consistent with the target identified by the state in AB 32 – California Global Warming Solutions Act. When the City conducted a greenhouse gas inventory in 2010, the results indicated that we had already achieved that level of emissions. The City has experienced significant growth since that time, and these emissions may have increased.

The Sustainability Plan outlined some high-level actions such as monitoring and reporting greenhouse gas emissions; developing strategies based on the Climate Action Plan to reach the 1990 levels by 2020 and achieve carbon neutrality by 2030; and improving community resiliency to the potential impacts of climate change, including determining what these impacts will be.

The Climate Action Plan includes more specific actions that the City could take to reduce its emissions. These actions are organized around the following key sectors:

- Residential (where we live)
- Business (where we work)
- Building (how we build)
- Transportation (how we get around)
- Municipal (how we govern)
- Hospitality and Recreation (where we visit and play)
- Education (how we teach and learn)

Current Activities

The Office of Sustainability had planned to conduct a greenhouse gas inventory internally this year, but it is unlikely that staff resources will allow for that. This is a critical first step in understanding where we are with our

stated goals and to identify the highest priority areas to address. Funds could be moved around in the Sustainability Budget to hire a consultant this year, if the Commission felt that this was important to do sooner rather than later.

Although we have not conducted a full assessment of the Climate Action Plan or the items highlighted in the Sustainability Plan, it is not clear from a quick assessment that many of the things mentioned are being implemented. It is also unclear if all of the energy efficiency and other programs referenced still exist. I had budgeted for an update to the Sustainability Plan next fiscal year, so some of this would be addressed through that process.

Although many of the things in the current Plans may not have been implemented, it is worth noting some significant things that have occurred or will occur that will help reduce our greenhouse gas emissions. These include the following:

- **Decision to adopt the 100% Carbon free option as the default for rate payers under Desert Community Energy.** This will begin in Fall 2020. In 2010, the largest percentage of emissions – over 41% - came from the electricity used to power homes in the City. The City's decision to shift to carbon-free energy for all residents and businesses will have a significant impact on the City's greenhouse gas emissions. The Solar and Green Building Subcommittee is considering proposing that the City require all commercial businesses be required to maintain the 100% Carbon-free option.
- **CalGreen Energy Code changes effective in January 2020.** The changes in the building codes that will be in effect in January 2020 have several new energy efficiency and clean energy requirements for residential and commercial construction projects. As the Commission knows, one of these requirements is that all new residential projects are required to install solar panels. These requirements along with improved energy efficiency should have a significant impact on reducing greenhouse gas emissions from residential and commercial buildings moving forward. The Solar and Green Building Subcommittee has been working to identify additional requirements that could provide for more greenhouse gas reductions.
- **Expanding number of Electric Vehicles (EVs) on the road and increasing network of EV charging stations.** The market for electric vehicles increased significantly over the past several years since the Climate Action Plan was developed. The City has not needed to promote electric and hybrid alternatives as was described in the Plan. This may be changing as people seem to be reverting to sport utility vehicles, but car manufacturers are also responding with electric and hybrid options. This is leading to an increased need for EV charging stations – something the Office of Sustainability has been working on with Engineering for the past several months. We have worked with SCE to identify the infrastructure needed to support this expansion, and we are in a position to start to develop an RFP to secure chargers and charger maintenance services.
- **New organics waste management requirements.** One of the challenges that the state continues to have in managing greenhouse gas emissions broadly is managing emissions from landfills – much of which is generated by organic waste. The State is working on a new law – SB 1383 – that is designed to reduce the amount of organics going to landfills. The City is currently working with PSDS to anticipate and respond to this new law.

Input Requested

The City seeks input from the Sustainability Commission on the following:

- Whether it would be supportive of re-budgeting some Sustainability funds to conduct a greenhouse gas inventory.
- What additional immediate actions it feels the City or the Commission should be taking, if any, to further address climate change impacts prior to the results of the greenhouse gas inventory.

Palm Springs Climate Action Plan

May 2013

2013 Climate Action Plan: Leadership in Energy Efficiency

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I. Executive Summary

The City of Palm Springs is proud to have completed this report, the "2013 Climate Action Plan: Leadership in Energy Efficiency." It falls within a broader sustainability planning context supported by Southern California Edison (SCE) and its ratepayers. It also builds on the City's Path to a Sustainable Community adopted in 2008.

With this Plan, Palm Springs is joining an increasing number of California local governments committed to addressing climate change at the local level. In February of 2008, the City of Palm Springs endorsed the U.S. Conference of Mayors Climate Protection Agreement, an agreement now adopted by 1,054 mayors representing nearly 89 million residents. This agreement called on signatory cities to reduce their emissions to 7% below 1990 levels by 2012, in line with the Kyoto Protocol. The City of Palm Springs is now planning further action now to reduce greenhouse gas emissions within its own operations and throughout the community.

The City of Palm Springs includes Indian Reservation land. The Agua Caliente Band of Cahuilla Indians Reservation land constitutes approximately 18% (16.6 square miles) of the total land (94.55 square miles) within the City limits. See the Agua Caliente 2013 Greenhouse Gas Inventory prepared by Coachella Valley Association of Governments (CVAG) for a full explanation of how Reservation and Tribal emissions are accounted for in the overlap of jurisdictions.

The City will continue to take advantage of common-sense approaches as well as cutting-edge policies to reduce energy use and waste, create local jobs, improve air quality, preserve the local landscape and history, and in other ways benefit the City for years to come.

The Climate Action Plan is a framework for the development and implementation of policies and programs that will reduce the City's emissions. It addresses the major sources of emissions in seven spheres of daily life:

1. Where We Live (Residential)
2. Where We Work (Business)
3. How We Build (Building)
4. How We Get Around (Transportation)
5. How We Govern (Municipal)
6. Where We Visit and Play (Hospitality/Recreation)
7. How We Teach and Learn (Education)

For each sphere, the Plan suggests a number of programs or policies that can be implemented by Palm Springs to meet its goals. These are linked with the City's Greenhouse Gas Inventory (GHG Inventory). A portfolio of 78 measures has been presented for implementation over eight years. Some of the measures are already planned or in process, and are included because of their anticipated impact. Each recommendation carries information about results and costs to the community and the City. Only a subset of the measures is required to reach the City's emissions reductions targets.

This Plan is the root of a comprehensive suite of sustainability services including the City's 2013 Greenhouse Gas Inventory,[1] its 2013 Energy Action Plan,[2] the Voluntary Green Building Program,[3] a municipal building Energy Benchmarking Policy[4] and a municipal building Retro-Commissioning Policy.[5] Together, they support this Plan and help position the City for cost-effective, energy-efficiency savings and carbon dioxide reductions.

Energy Efficiency

The subtitle "Leadership in Energy Efficiency" defines the Plan. Energy efficiency provides rich opportunities for Palm Springs. Taking steps to improve energy efficiency will lead to jobs—for example, jobs weather-proofing houses, providing energy audits, installing new technologies or upgraded equipment. These are programs that keep electricity costs low which will attract and keep businesses. This type of economic development is a top City priority.

This Plan achieves the win-win-win solution of creating jobs and cost savings, while reducing greenhouse gas emissions.

Many efficiency measures are simple and cost-effective: Homes that are not properly sealed in desert summers increase the need for cooling and can be drafty in the winter. They can be upgraded with significant results, as can aging appliances.

Behavioral changes to conserve and maximize the value of energy use are nearly free and can also result in major dollar and energy savings, often at peak periods. Measures such as these are planned by Palm Springs, building on its track record as "Your Sustainable City."

Climate Action Targets

If Palm Springs continues with "Business-as-Usual," its carbon footprint will remain quite flat despite projected population growth of 18% from 2010–2020[6] and increasing use of energy for comfort and convenience. This is possible thanks to local initiatives as well as federal and state regulations placed on utilities and automobiles. The projection for City emissions to 2020 is as follows:

[1]City of Palm Springs 2013 Greenhouse Gas Inventory, prepared by EcoMotion for the City of Palm Springs and the Coachella Valley Association of Governments, May 2013.

[2]City of Palm Springs 2013 Energy Action Plan, prepared by EcoMotion for the City of Palm Springs and the Coachella Valley Association of Governments, May 2013.

[3]City of Palm Springs Voluntary Green Building Program, Prepared by Interactive Design for CVAG, June 2012. Approved by City of Palm Springs, September 2012, Please see Appendix.

[4]City of Palm Springs Benchmarking Policy, Prepared by BSE Engineering for CVAG, June 2012. Please see Appendix.

[5]City of Palm Springs Commissioning/Retro-Commissioning Policy prepared by BSE Engineering for CVAG, June 2012. Please see Appendix.

[6]Riverside County Population Projections 2010, Center for Demographic Research, Riverside County Transportation and Land-Use Management Agency.

Figure 1: Palm Springs' Projected Emissions

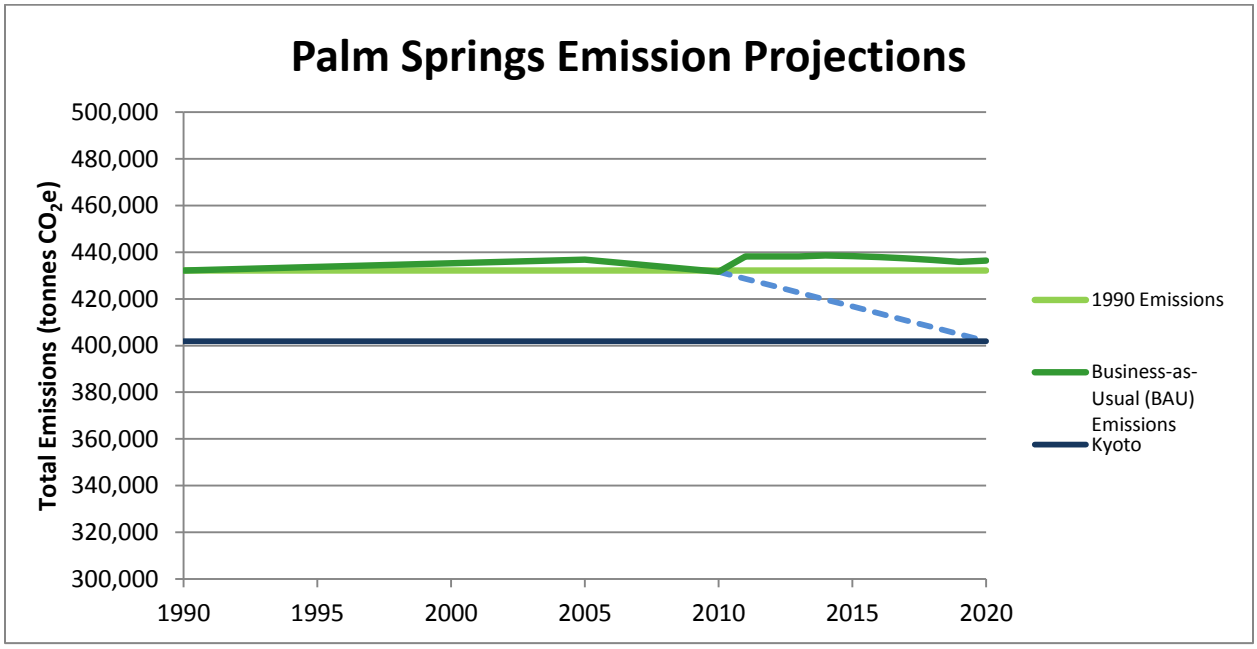


Table 1 above summarizes the position of Palm Springs based on available data from 1990, 2005, and 2010. The dark green line shows the trajectory the City will follow given population growth and full implementation of state and federal emissions reduction programs (such as auto emissions standards and requirements for renewable energy within utilities' energy mix). Note that 2010 levels are actually slightly below the 1990 emissions level presented in the lighter green line. The Kyoto Protocol target is presented as the dark blue line. The dashed line represents the path that Palm Springs must follow to achieve its Kyoto Protocol emissions reduction goals.

The emissions reductions goals are summarized below. The standard measurement for emissions is metric tons of carbon dioxide, or "tonnes" of CO_2. In the inventory process, other greenhouse gases are converted to their equivalent to carbon dioxide, or "CO_2e." For Palm Springs to maintain its emissions at the statewide target of 1990 levels of CO_2e by 2020, it will have to implement emissions reductions of 4,263 tonnes per year, just 1.0% of the forecasted 2020 level.

To achieve the AB 32 target by 2020,
Palm Springs will have to cut GHG emissions by 1.0%, or 4,263 tonnes.

To fulfill the Mayor's commitment of reaching 7% below 1990 levels,
Palm Springs will have to cut GHG emissions by 7.9%, or 34,513 tonnes.

Based on a 2010 population of 44,552, the 2010 total emissions represent a footprint of 9.7 tons per person. To reach the 1990 target defined by AB 32 with a stable population, or even the 18% growth estimates projected, would require a per capita reduction of a fraction of a tonne. To fulfill the Mayor's climate commitment signed in 2009, and in line with the Kyoto

Protocol target of 7% below 1990 levels (34,513 tonnes), the average per capita reduction required is approximately one tonne per year.

Table 1: Palm Springs' 1990, 2010, and 2020 Emissions Projections

1990 Emissions Level (Tonnes CO_2e)
432,136

Kyoto Emissions Level (Tonnes CO_2e)
401,886

2010 Baseline Emissions (Tonnes CO_2e)	Tonnes over 1990	% Reduction Needed
431,594	-542	-0.1%

2020 Net Emissions (Tonnes CO_2e)	Tonnes to Reach AB 32	% Reduction Needed
436,399	4,263	1.0%

2020 Net Emissions (Tonnes CO_2e)	Tonnes to Reach Kyoto	% Reduction Needed
436,399	34,513	7.9%

The Climate Action Plan describes the steps the City and its residents can take to reach these targets by applying policies, programs, and initiatives.

Summary of Costs and Benefits

Measures in this Climate Action Plan represent a total cost to the City of approximately $1,091,000 over eight years leveraging savings of more than $25 million per year in the City and creating approximately 250 full-time equivalent jobs. The estimate of jobs created is conservatively calculated based on an annual full-time equivalent job created for every $100,000 of first-year energy savings created by an implementation measure.

An investment of just over $1 million in eight years will leverage over $25 million in community savings, while creating nearly 250 full-time jobs.

The implementation measures presented would result in a reduction in greenhouse gas emissions of 75,984 tonnes, many multiples of the AB 32 and Kyoto Protocol target reductions. The surplus in programmatic activity allows future City Councils discretion in program selection and implementation.

Acknowledgements

The City of Palm Springs appreciates the guidance of Southern California Edison in developing win-win energy efficiency strategies to save money and protect the environment. Through the Green for Life program administered by the Coachella Valley Association of Governments, the City has been given tools and resources to prepare for the future.

SCE has supported the research and development of energy efficiency measures within this Plan. This support has been especially important and responsible for the vast majority of the savings. The City views climate action in a broad context that integrates energy efficiency with waste diversion, water use, and transportation.

Given the integrated planning context desired and the SCE Strategic Plan funding requirements, the Coachella Valley Association of Governments has arranged for supplemental funds from Riverside County for the research and development of the balance of the Plan's non-energy elements. The City is grateful for this special support to make the Plan most useful in implementation.

II. Climate Action Planning

A Roadmap for Action

This City of Palm Springs 2013 Climate Action Plan is a guide for action. It takes knowledge gained from the Greenhouse Gas Inventory, the City's own Sustainable City reports, and community input, then sets emissions reduction goals, and applies policies, programs, and initiatives to reach them. Sets of measures detailed in the Plan will save energy and money, while creating jobs and cutting carbon.

The City will use the plan as a customized roadmap for making efficiency decisions based on achieving the largest and most cost-effective emissions reductions from measures that are well aligned with other City goals, for instance working collaboratively on health and safety issues.

Purpose and Compliance

In 2006 California passed the Global Warming Solutions Act (California Assembly Bill 32), which gave a new impetus to measuring and reducing energy use and emissions. The goal California set with AB 32 is to reduce emissions to 1990 levels by the year 2020. Governor Arnold Schwarzenegger's Executive Order S-3-05 set an even more aggressive goal—80% below 1990 levels by 2050—and identified local governments as key partners in reaching these goals.[7]

Thanks to aggressive statewide programs, California's emissions have remained relatively stable over the past 15 years. According to the Energy Information Administration of the U.S. Department of Energy, only Vermont, New York, Idaho, and Rhode Island have smaller per capita footprints than California.

The California Air Resources Board (CARB) has been instructed to implement AB 32. Its Climate Change Scoping Plan was approved in 2008 and readopted in 2011 and outlines the state's plan to achieve GHG reductions required in AB 32.[8] In the Scoping Plan, CARB encourages local governments to adopt a reduction goal for municipal operations emissions and move towards establishing similar goals for community-wide emissions that parallel the state's commitment to reduce GHGs.

While no directives have been issued on AB 32 implementation for local governments at this time, activity in the realm of emissions measuring and reduction is ramping up:

- On January 1, 2012, California's Cap-and-Trade regulation became effective. Part of the state's plan to meet AB 32 targets, this plan assigns 85% of all major emitters a "cap" on

[7] For a more complete discussion of AB 32 and other regulatory issues, please see the City of Palm Springs 2013 Greenhouse Gas Inventory.

[8] "Climate Change Scoping Plan: A Framework for Change," California Air Resources Board, Pursuant to AB 32: The California Global Warming Solutions Act, December 2008.

emissions, and forces them to either reduce emissions to meet the cap or to buy (or "trade" for) offsets to meet their target.

- On June 4, 2012, separate emissions reductions targets (8% below 2005 levels) for the Southern California region (which includes Palm Springs) were approved as part of Senate Bill 375 legislation. SB 375, originally passed in 2008, seeks to limit emissions through transportation and land-use planning. The California Air Resources Board and the South Coast Air Quality Management District have taken the lead on implementing action to meet SB 375 goals. The Southern California Association of Governments has prepared a Sustainable Communities Strategy consistent with SB 375 for the region including CVAG's area.

- The California Attorney General continues to monitor and actively challenge greenhouse gas inventories or other aspects of environmental impact plans that are not deemed adequate. For example a recent case occurred in January, 2012, when the adequacy of the Environmental Impact Report certified by the San Diego Association of Governments was challenged for its 2050 Regional Transportation Plan.

In an effort to stay ahead of impending regulations, this Climate Action Plan defines the City of Palm Springs' goal of complying with statewide mandates to reduce emissions and achieve reductions in line with the climate protection commitment made by the City in 2008. California Environmental Quality Act (CEQA) compliance will be completed by CVAG with assistance of staff as part of the consideration of this Climate Action Plan.

At the same time, through thoughtful and well-planned actions, Palm Springs intends to:

- Increase energy efficiency in local government operations and in community activities
- Support City and community initiatives to increase health and wellness
- Create new jobs associated with smart energy management
- Save money now being spent for energy and keep it in the City by establishing a revolving fund whereby funds derived from municipal energy savings will be available for municipal and community programs to further reduce greenhouse gas emissions.
- Maintain or increase the comfortable desert lifestyle of residents and visitors alike
- Bring the Coachella Valley Association of Governments' jurisdictions together for effective regional climate planning

External Factors

Factors outside of the City's control will influence emissions, often to its benefit. For example, electricity production is getting less carbon intensive, thanks to the state's Renewable Portfolio Standard (RPS) that requires that utility energy portfolios include ever-higher percentages of

renewable energy.[9] The state also regulates the efficiency levels of new buildings, with ever-more-stringent standards incorporated into each three-year cycle of state building standards (Title 24) updates.

In 2008, the California Public Utilities Commission adopted California's first "Long Term Energy Efficiency Strategic Plan" through 2020. It offers strategies to achieve greater levels of efficiency across all electric and natural gas use, including working toward goals for all new construction. The goal for all new residential construction is to be zero net energy by 2020, and for all new commercial construction to follow by 2030.

California's Low-Carbon Fuel Standard requires that the mix of fuel sold in the California market meets declining targets for GHG emissions – a reduction of at least 10 percent in carbon intensity by 2020. These factors mean that business as usual will be less carbon intensive. The factors are emissions benefits to local jurisdictions, while imposing no direct costs.

California Leadership in Energy Efficiency

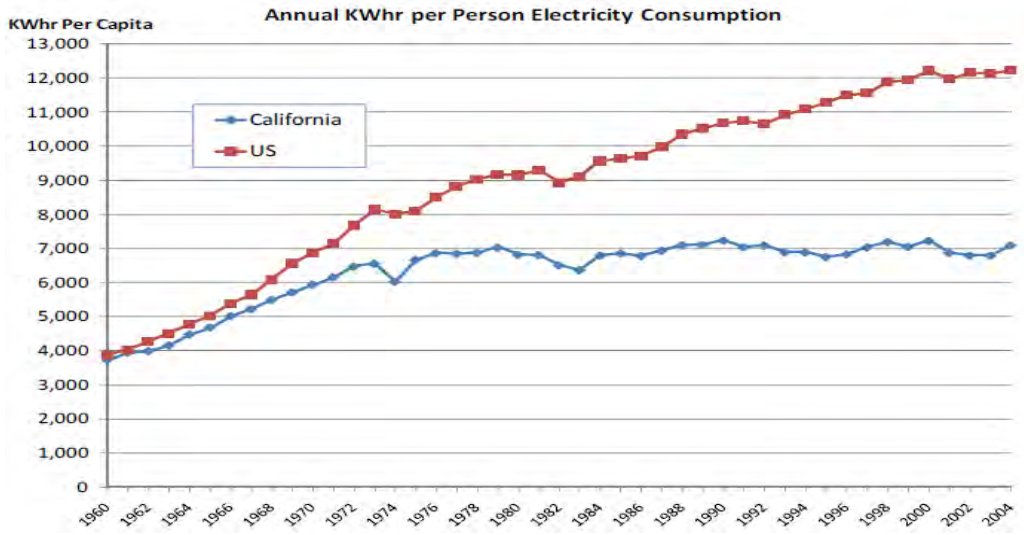
California is the nation's leader for energy efficiency and conservation. Its impressive track record began in 1974 with the formation of the California Energy Commission (CEC). Since then, and as depicted in the following CEC graphic (

Figure 2) although population has increased, per capita energy use in California has stayed relatively stable, while energy use per capita in the United States has increased 50%.[10] California's efforts have had a profoundly positive effect in terms of driving down greenhouse gas emissions and have saved Californians billions of dollars in energy costs.

Figure 2: California vs. U.S. Per Capita Electricity Consumption, 1960–2004

[9] The Renewable Portfolio Standard (RPS) defines the percentage of renewables that California's investor-owned utilities have to achieve by specific dates. Utilities achieved a 20% RPS by 2010 and are now directed to reach 33% with eligible renewable generation resources by 2020.

[10] Integrated Energy Policy Report, Figure 2, California Energy Commission, 2007.



Concerns about greenhouse gas concentrations increasing to intolerable levels have been growing for decades. By the turn of the century, the Intergovernmental Panel on Climate Change (IPCC) of the United Nations had forged a broad consensus that man's activity on Earth ("anthropogenic" activity) is having an effect, and that climate patterns will change, and sea levels will rise.

California's Emissions 2009

California emitted 452.97 million tonnes of GHG emissions in 2009, approximately 12.2 tonnes per capita.[11] Of this, the largest emitters were transportation (172 million tonnes), electric power (104), residential and commercial fuel use (43), industry (81), agriculture—livestock, fertilizers, and general fuel use (32), and waste streams and landfills (7.3). Emissions were 5.8% lower in 2009 than 2008. Based on 2009 data, the state is 25 million tonnes from its 427 million tonne 1990 footprint goal.

Utility Leadership

Located within the Coachella Valley, and as a member of the Coachella Valley Association of Governments, Palm Springs has benefitted from the support of local utilities. Southern California Edison, Southern California Gas, and the Coachella Valley Water District provide programs and services that have helped their customers save resources and money. Meanwhile, these utilities have looked at greening their own operations.

The Planning Process

This Climate Action Plan fits within an umbrella of sustainability promoted by the Green for Life program. The program includes a number of tools to help local governments become more efficient, create savings, promote economic development and jobs, and stem the flow of dollars

[11] State of California Greenhouse Gas Emissions Inventory, California Air Resources Board, April 2012. This edition of the inventory covers the years 2000–2009.

out of their communities. The process is necessarily integrated, involving all forms of energy, water, and materials from “cradle to grave,” source to disposal.

This Climate Action Plan addresses the greenhouse gas impact of our lives in seven spheres of activity related to our daily lives.

The Spheres Address:

Where We Live (Residential Sector)

Where We Work (Business sector)

How We Build (Building sector)

How We Get Around (Transportation)

How We Govern (Municipal sector)

Where We Visit and Play (Hospitality/recreation)

How We Teach and Learn (Education sector)

For each sphere, the Plan suggests a number of policies, programs, and initiatives that can be implemented by Palm Springs to meet its reduction goals. The initiatives are also color-coded, and linked with the Greenhouse Gas Inventory, to track progress by sector, also known as "focus areas," as presented in the legend:

Commercial Buildings
Cross-Cutting Initiatives
Government Initiatives
Renewable Energy
Residential Buildings
Solid Waste
Special Focus Area
Transportation
Water/Wastewater

Each recommendation carries information about how the measure would impact the community and what it may cost.

Calculating Potential Savings

Estimating the savings results of different energy actions or savings programs is an imprecise but instructive exercise. The measures recommended in this report were approached with these questions in mind:

- Has the measure been successfully implemented elsewhere?

  Directed research uncovers details on hundreds of programs that have been sponsored by utilities around the country and around the world. Closer to home, years of experience with both the design and the implementation of programs for Southern California Edison and Southern California Gas provides a strong basis for predicting the likely uptake of a given program in the Coachella Valley and Palo Verde Valley as well as other desert regions. Both external and internal resources were used in predicting costs and results of the measures included in the CAP.

- What special tools for measuring program results are available from the utilities?

  The Statewide Energy Efficiency Collaborative (SEEC) provides support to cities and counties to help reduce greenhouse gas emissions and save energy. The partnership, consisting of non-profits and California's four investor-owned utilities, provides tools at no cost to users. SEEC's Community GHG Forecast Assistant is a spreadsheet designed to perform business-as-usual forecasts, including the effects of statewide and federally implemented programs such as fuel economy standards and the Renewable Portfolio Standard. Palm Springs' 2010 greenhouse gas emissions were entered into the spreadsheet, then using growth rates projected by Riverside County Center for Demographic Research, business-as-usual emissions were estimated—with and without the impacts of federal and state programs.

- How can the results of "community outreach programs" be measured?

  Many utility savings programs have been measured for their effectiveness, both from the point of view of the utility and of the consumer. The results of any given program must consider a number of factors, for instance how many people would have made the change anyway ("free ridership"). Uptake in the recommended programs and measures for this CAP was estimated based on experience and calculations; actual savings will be tracked.

- How does Local Governments for Sustainability (ICLEI) help quantify these reduction measures?

  The GHG Inventory was completed using the Clean Air and Climate Protection (CACP) Software, the industry standard as developed by Local Governments for Sustainability, or ICLEI. (The group was formed under the name International Council for Local Environmental Initiatives, and has retained the acronym.) ICLEI's Climate and Air Pollution Planning Assistant (CAPPA) helps local governments identify and quantify potential energy- and carbon-reduction measures. CAPPA provides more than 100 strategies for reducing

emissions and energy both within municipal operations and throughout the community. Each strategy estimates emissions savings through a set of assumptions (and “emissions factors”) that can be easily adjusted by the user. In the case of Palm Springs, factors were adjusted to reflect the climate and electricity profile of the City.

III. 2013 Greenhouse Gas Inventory Results

Palm Springs completed its first Greenhouse Gas Inventory in 2008. This was followed in 2013 by a second inventory with a baseline year of 2010, completed as a part of the Green for Life program. The inventories provide detailed and clear analyses of the City's "carbon footprint," showing the sources and sectors of emissions, highlighting opportunities for emissions reductions that make sense for Palm Springs.

The Palm Springs inventory is complemented by the "Briefing on Climate Action Planning for Elected Officials in the CVAG Region" prepared by EcoMotion for CVAG and its member cities and tribes.[12] The Briefing compiles the results of fourteen greenhouse gas inventories prepared thus far in the Coachella and Palo Verde valleys, determining gross and net emissions and opportunities for regional climate protection.

Highlights of the Palm Springs 2013 Greenhouse Gas Inventory for Palm Springs are below.

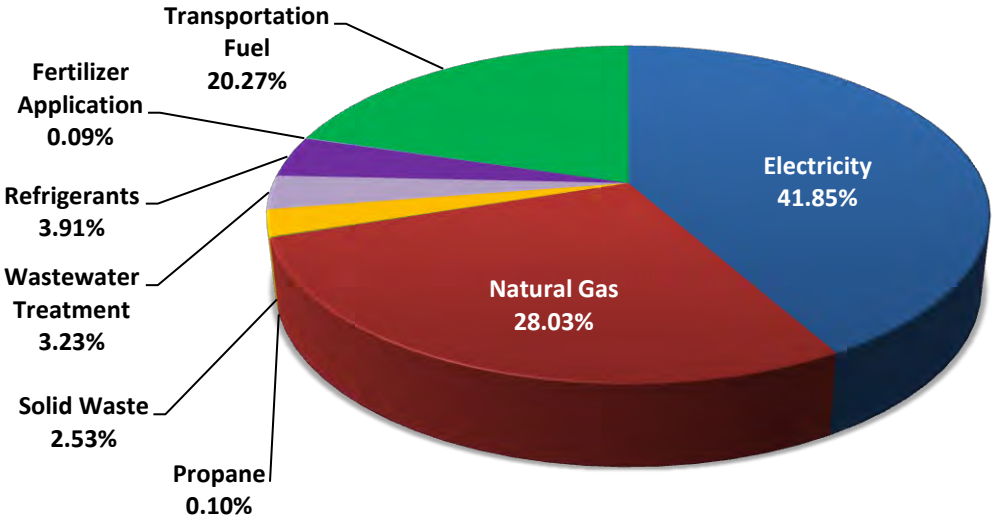
- In 2010, Palm Springs emitted 431,594 metric tons (or tonnes) CO_2e, slightly below the 1990 level. At present the City has met its AB 32 target.

- To be compliant with AB 32 in 2020, Palm Springs needs to maintain its emissions at no more than 432,136 tonnes, the 1990 level. Current planning data shows Palm Springs to be on course to meet AB 32 targets.

- In 2010, the largest percentage of emissions—over 41%—came from the electricity used to power homes in the City. These homes and their residents' activities will continue to be a focus for the City's efforts.

[12] Briefing on Climate Action Planning for Elected Officials in the CVAG Region. Prepared by EcoMotion for the Coachella Valley Association of Governments, May 2013.

Figure 3: 2010 Palm Springs Community Emissions by Source



Emissions Reductions Goals

Figure 4: Palm Springs Emissions Forecasted to 2020

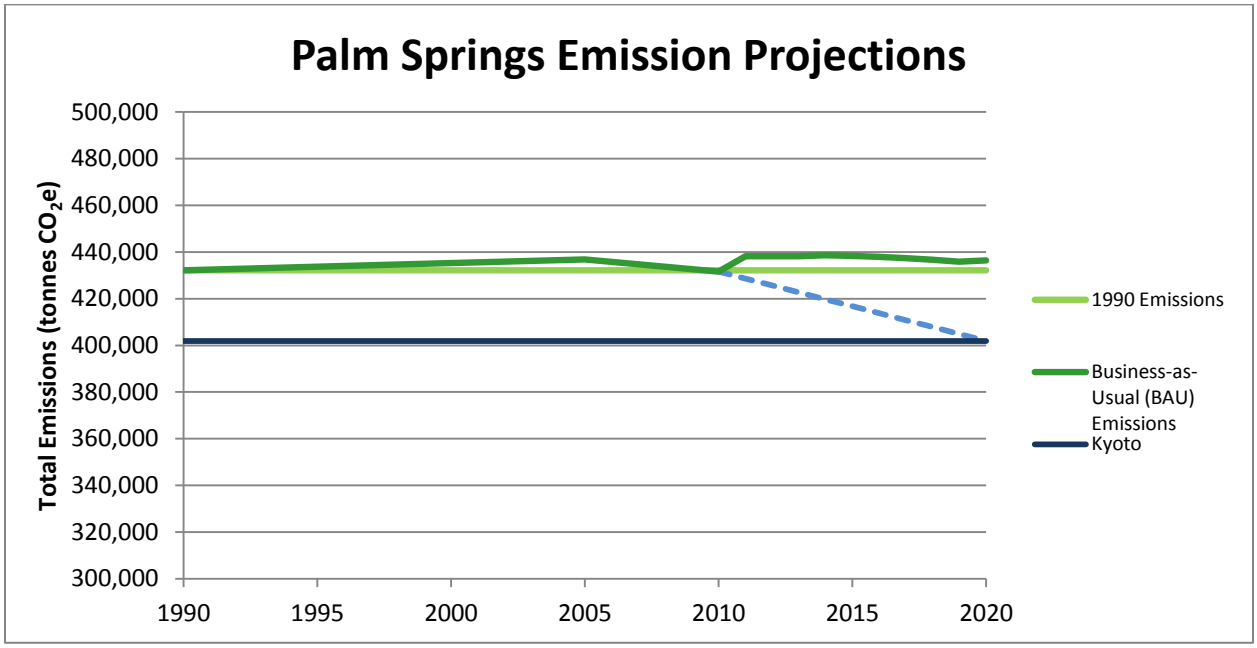


Figure 4 summarizes the position of Palm Springs based on available data from 1990, 2005, and 2010. The dark green line shows the trajectory the City will follow given projected population growth and implementation of state and federal emissions reduction programs. The lighter green line shows the 1990 emissions levels. The dark blue line shows the emissions level required to achieve the Kyoto Protocol target. The dashed line represents the path that Palm Springs must follow to achieve its Kyoto Protocol emissions reduction goals.

Table 2: Palm Springs' 1990, 2010, and 2020 Emissions Projections

1990 Emissions Level (Tonnes CO_2e)
432,136

Kyoto Emissions Level (Tonnes CO_2e)
401,886

2010 Baseline Emissions (Tonnes CO_2e)	Tonnes over 1990	% Reduction Needed
431,594	-542	-0.1%

2020 Net Emissions (Tonnes CO_2e)	Tonnes to Reach AB 32	% Reduction Needed
436,399	4,263	1.0%

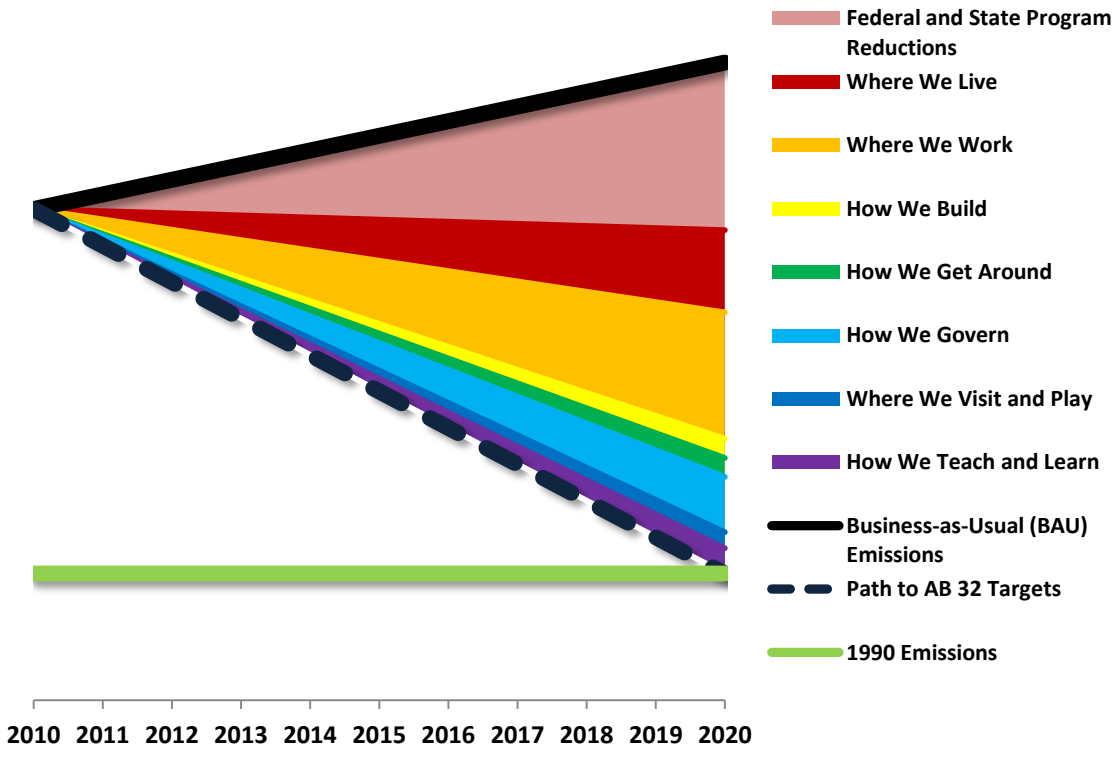
2020 Net Emissions (Tonnes CO_2e)	Tonnes to Reach Kyoto	% Reduction Needed
436,399	34,513	7.9%

The City of Palm Springs' emissions have remained nearly flat for the past 20 years. This is due to the City being largely built out by 1990, a greener electricity profile, and thanks to the efforts of dedicated staff and community members that have driven the City's focus on environmental stewardship and sustainability. Growth projections, however, threaten to upset this balance. As such, the City will have to maintain its emissions levels in light of new business and increased population.

Portfolio of Savings Measures

Informed by the Greenhouse Gas Inventory, and with goals set, the Plan presents a menu of savings measures to drop emissions by different aspects of daily life as graphically represented in Figure 5.

Figure 5: Emissions Reduction Wedges



The wedges conceptually depict broad areas/spheres of savings measures. This Climate Action Plan presents specific measures for phases of implementation to reach the AB 32 and Kyoto Protocol goals.

IV. Greenhouse Gas Reduction Opportunities

Hundreds of opportunities for greenhouse gas reductions have been examined by Palm Springs and its Green for Life consultants. They cover seven spheres of daily activity and numerous types of initiatives within each sphere as previously presented.

A portfolio of 78 measures is presented that represent 75,984 tonnes of annual CO_2e savings, many multiples of the 4,263 tonne gap to reach compliance with AB 32 levels, and more than double the 34,513 tonnes required to reach the Kyoto Protocol target.

They have been selected from suggestions and recommendations coming from interviews with City staff and officials, Sustainability Commission officials, from the public, and from best practices gleaned from around the country.

Each measure has been chosen based on its suitability to the local climate, cost to the City, and its efficacy and "do-ability" in the current economic climate. Measures are color-coded to link specific measures to the focus areas within the City's Greenhouse Gas Inventory.

Table 3: Climate Action Measure Totals by Sphere

Sphere	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Estimated Implementation Cost to City	Annual Savings
Live	25,200	71	$208,500	$7,051,555
Work	17,539	65	$99,000	$6,536,922
Build	1,430	8	$215,000	$765,417
Mobility	11,772	44	$399,500	$4,434,219
Govern	13,458	51	$58,000	$5,148,066
Recreate	5,251	10	$83,000	$991,856
Learn	1,334	4	$28,000	$432,119
Totals:	**75,984**	**254**	**$1,091,000**	**$25,360,153**

A subset of measures is presented for immediate implementation and to maintain the AB 32 goal by fulfilling emissions reductions of 4,263 tonnes, just 1.0% of the current level. Additional measures are presented to achieve the Kyoto Protocol target of 7% below 1990 levels. Assumptions for costs and for savings were developed as follows:

- Costs were assumed to be those that the local government would bear. In many cases, costs for measures involve only estimated level of effort for the appropriate staff person. Given stretched staff time already, the assumption is that the service would need to be subcontracted. If the City prefers to use staff time, absolute costs may be lower or non-existent.

- As described earlier, savings figures (in tonnes CO_2e) were calculated using different ICLEI GHG and CAP inventory planning tools (the CACP calculator[13] and the CAPPA[14] tool). Data from other communities' experience with similar programs was also used to help set uptake parameters.
- Many assumptions were formulated based on the local government's 2010 population and number of residential units. In Palm Springs, the population figure used was 44,552 and the household units figure was 34,794.[15]

Notes on Tables:

For each sphere of activity, a table summarizes suitable emissions mitigation measures. Later in the text, tables are presented that list measures for each phase of activity. Comprehensive tables ranked by the cost-effectiveness of all measures (with detailed assumptions), and that rank initiatives' cost to the city (as well as kWh savings) can be found in the Appendix.

Where We Live (Residential)

- Household energy conservation and efficiency
- Household water conservation and efficiency
- Waste management and recycling
- Renewable energy systems
- Community education

Palm Springs has a track record of promoting residential programs, from high efficiency pool pumps to desert landscaping. Given the older neighborhoods in Palm Springs, there is still considerable opportunity in this sphere for efficiency gains and GHG reductions.

The Voluntary Green Building Program offers valuable remodeling suggestions. Other simple steps involve water savings. They achieve as well the energy savings associated with electricity costs embedded in water pumping and delivery.

The City can support more sophisticated steps including insulation and major heating, ventilation and air conditioning (HVAC) upgrades that make financial sense for local government and for residents. Air conditioning is the biggest electricity use in homes in the City. Palm Springs will continue to promote retrofits that pay back quickly as well as support a local or regional Property Assessed Clean Energy (PACE) financing. Through PACE financing programs, financing is provided for energy upgrades and repaid via a property tax assessment.

[13] CACP – Clean Air and Climate Protection software, by Local Governments for Sustainability USA (ICLEI), is a greenhouse gas accounting package specifically designed to support climate action planning.
[14] CAPPA -- Climate and Air Pollution Planning Assistant, an ICLEI decision support tool designed to help U.S. local governments explore, identify, and analyze potential climate and air pollution emissions reduction opportunities.
[15] U.S. 2010 Census Data

CVAG is leading the regional PACE initiative with participation by its member jurisdictions; it is anticipated that such a program will be operable by late 2013.

A = AB 32
K = Kyoto

Table 4: Savings Measures for "Where We Live"

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
LIVE – 1	**Cross-Cutting Initiatives**	Save a Ton Campaign: Work with CVAG to further develop and locally market the Save a Ton campaign, unlocking energy, dollar, and carbon savings in 30% of the housing stock	A	4,082	9.8	$983,801	$2,000
LIVE – 2	**Renewable Energy**	Solar "Model Citizens": Promote solar photovoltaic systems and solar thermal systems for residential homeowners to develop 100 "model citizen" systems in Palm Springs	K	1,513	8.6	$863,586	$4,000
LIVE – 3	**Residential Buildings**	Pool Pumps: Promote high-efficiency, variable speed pool pumps to households at community fairs and retail outlets to achieve minimum of 500 units	A	247	1.1	$107,856	$50,000
LIVE – 4	**Residential Buildings**	Energy-Efficient Lighting: Purchase approx. 2,000 compact fluorescent lamps and LEDs for giveaways to demonstrate their value in homes and leverage ten times the number in household and business applications	A	279	2.0	$200,376	$6,000
LIVE – 5	**Residential Buildings**	Peak Demand Reduction: Partner with SCE to provide local promotion of the residential Summer Discount Program to cut peak demand in 10% of the housing stock	A	204	0.4	$41,742	$2,000
LIVE – 6	**Residential Buildings**	Household Efficiency Audits: Partner with SCE and SCG to provide local promotion for the Home Energy Efficiency Survey to "self audit" homes	K	447	1.8	$175,970	$2,500
LIVE – 7	**Residential Buildings**	Plan Checking and Permitting: Expedite plan check process and reduce permit fees by 50% for energy-efficiency measures and remodels and renewable energy installations to reduce carbon emissions	K	224	0.1	$8,798	$10,000
LIVE – 8	**Residential Buildings**	Residential PACE: Continue to partner and aggressively promote Residential PACE Program to reach 15% of homes with property-secured funding for 100% of the cost of energy upgrades and renewable energy systems in eight years	K	5,914	17.1	$1,712,027	$4,000
LIVE – 9	**Residential Buildings**	On-Bill Finance/Repayment: Partner with SCE and SCG to locally promote on-bill financing/repayment for residential energy efficiency retrofits in 15% of housing stock	K	3,509	8.8	$883,055	$2,000
LIVE – 10	**Solid Waste**	Solid Waste Diversion: Increase solid waste diversion rate by 5% to 80.1% by 2015 potentially through awareness programs, recognition and other financial instruments	A	2,763	1.0	$100,000	$20,000

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
LIVE – 11	**Solid Waste**	Solid Waste Diversion: Increase solid waste diversion rate by an additional 10% to 90.1% by 2020 potentially through awareness programs, recognition and other financial instruments	K	4,931	2.0	$200,000	$40,000
LIVE – 12	**Transportation**	Development Planning: Promote pilot program to bring amenities and limited services into communities to shorten commutes and promote walking	K	2	0.0	$924	$1,000
LIVE – 13	**Water**	Water Conservation Ordinance: Build on and exceed current water conservation programs, including Veolia rebate and Tap It! Partnership programs, by 15% community-wide by 2020	K	1,036	16.7	$1,666,850	$5,000
LIVE – 14	**Water**	Gray water-Ready Ordinance: Require all new residential development to be constructed for easy implementation of gray water systems that redirect water from wash basins, showers, and tubs	K	6	0.0	$52	$5,000
LIVE – 15	**Water**	Drought-Tolerant Landscaping: Continue to promote and augment rebates for individual residences and HOAs for Lawn Buy Back Program and drought-tolerant landscaping	A	43	1.1	$106,519	$55,000

Cross-Cutting Initiatives	**1**	**4,082**	**10**	**$983,801**	**$2,000**
Renewable Energy	**1**	**1,513**	**9**	**$863,586**	**$4,000**
Residential Buildings	**7**	**10,824**	**31**	**$3,129,824**	**$76,500**
Solid Waste	**2**	**7,694**	**3**	**$300,000**	**$60,000**
Transportation	**1**	**2**	**0**	**$924**	**$1,000**
Water	**3**	**1,085**	**18**	**$1,773,421**	**$65,000**
Subtotal	**15**	**25,200**	**71**	**$7,051,555**	**$208,500**

Where We Work (Business)

- Workplace energy conservation and efficiency
- Workplace water conservation and efficiency
- Materials management and recycling
- Transportation and telecommuting

The City of Palm Springs is committed to creating healthy office and work environments as an important part of a sustainable lifestyle in the community. Given the percent of time that many residents spend at work, the focus on "Where We Work" will have multiple benefits.

For Palm Springs, continual business improvement is essential in creating jobs and supporting ongoing economic development. Programs that reduce the stress of commuting, for example, add to employee satisfaction, improve productivity, and cut transportation emissions. Studies

show that green building upgrades can cut operating costs, lead to decreased illnesses and absenteeism and longer-term tenants and, again, to increased productivity.

The City can have an impact on the way supplies and raw materials are delivered, and on how excess or waste materials are disposed of. Palm Springs has already implemented a pilot restaurant composting program.

Table 5: Savings Measures for "Where We Work"

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
WORK – 1	**Commercial Buildings**	Commercial Energy Audits: Work with Desert City Energy Partnership to promote energy audits for 500,000 square feet of commercial buildings and confirm replacement/upgrade schedule	K	365	1.2	$122,829	$12,000
WORK – 2	**Commercial Buildings**	Peak Demand Reduction: Collaborate with SCE and encourage 100 businesses to enroll in Energy Efficiency and Demand Response programs such as the Summer Discount Program	A	193	1.0	$96,900	$2,000
WORK – 3	**Commercial Buildings**	Energy-Efficient, Commercial-Sector Lighting: Promote and leverage existing incentives for efficient lighting and educate and locally incent building owners to eliminate any remaining T-12 lamps in commercial buildings	A	704	2.6	$258,930	$5,000
WORK – 4	**Commercial Buildings**	SCE Business Incentives: Promote and leverage existing incentives for efficient lighting and energy efficiency upgrades for small businesses through SCE's Express Solutions Program, for specific industries such as Hospitality, Gov./Institutions, Office, Retail, Small Business, Water Wastewater through SCE's Energy Management Solutions program, and partner with SCE for large businesses through the Continuous Energy Improvement Program (savings from non-PACE-funded projects)	K	267	1.0	$98,154	$2,000
WORK – 5	**Commercial Buildings**	Integrated Lighting Systems: Promote SCE's Energy Management Solutions' energy-efficient lighting linked to building controls and occupancy sensors in minimum of 1 million square feet of commercial space	K	822	5.0	$496,282	$60,000
WORK – 6	**Commercial Buildings**	"The Temperature Club:" Promote community partnership through policies to adjust indoor temperatures to save/degree, by way of the "Green Business Partnership"	K	97	0.5	$48,450	$2,000
WORK – 7	**Commercial Buildings**	Commercial PACE Program: Partner and aggressively promote commercial PACE program to provide commercial property owners —from retail to resorts—with property-secured funding for 100% of the cost of energy efficiency upgrades/renewable energy installations	K	10,319	36.8	$3,677,730	$5,000

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
WORK – 8	**Commercial Buildings**	Commercial On-Bill Financing/Repayment: Encourage On-Bill Financing/Repayment through SCE and SCG with green messaging and teamwork in the community	K	4,250	15.3	$1,533,998	$2,000
WORK – 9	**Solid Waste**	Food Waste Composting at Restaurants: Facilitate and increase restaurant composting program for food waste to reach 50 restaurants that serve more than 100 meals a day	K	41	0.4	$44,552	$5,000
WORK – 10	**Transportation**	Car-Pooling and Mass Transit: Promote "Shared Vehicle at Work" programs to increase carpooling and mass transit by 20% with a "guaranteed-ride home"	A	114	0.2	$22,650	$2,000
WORK – 11	**Transportation**	Telecommuting: Promote telecommuting and flex-time for local businesses to achieve and track 250 teleworkers in Palm Springs	K	367	1.4	$136,447	$2,000

Commercial Buildings	**8**	**17,017**	**63**	**$6,333,273**	**$90,000**
Solid Waste	**1**	**41**	**0**	**$44,552**	**$5,000**
Transportation	**2**	**481**	**2**	**$159,097**	**$4,000**
Subtotal	**11**	**17,539**	**65**	**$6,536,922**	**$99,000**

How We Build (Building)

- Green building materials
- Codes and standards
- Land use policy
- Lighting, HVAC systems, etc.
- Renewable energy system integration

Given the extreme desert conditions, "How We Build" is of great importance to Palm Springs and this Climate Action Plan.

"Building it right the first time" makes sense from all kinds of standpoints. While California has the nation's leading building standards—thanks to Title 24—there are still ways for Palm Springs to make buildings healthier and more sustainable. The Green for Life Voluntary Green Building Program serves as a catalyst in the process of creating win-win-win solutions between costs, health, and security. It prepares Valley builders and buyers for the benefits of green and highly efficient building.

Starting in 2010, new development in Palm Springs slowed, and it continues to remain below historical levels. Riverside County projects growth of 18% over the next eight years in Palm Springs as the City stretches north. Whether this is realized or not, the City has the opportunity now to set new neighborhood development requirements and higher standards for buildings as part of the Green for Life Voluntary Green Building Program, in preparation for new statewide

standards scheduled to take effect in 2014.

The biggest opportunities for building energy efficiency lie with existing buildings. As with residential buildings, commercial and city buildings can benefit from efficiency upgrades and better energy management. They may also be able to contribute renewable sources of electricity by way of solar or wind installations, thereby reducing emissions from carbon-based sources.

The City will continue to fully collaborate with local utilities and county or state programs to help offset the costs of building upgrades and to promote on-bill financing and repayment. It will also support the development of a regional PACE program for both residential and commercial retrofits.

Palm Springs is a participant in the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) which conserves open space and habitat, while effectively focusing development in less sensitive areas, thus limiting sprawl and reducing vehicle miles traveled (SB 375 requires vehicle miles traveled reductions). This visionary plan is another example that how and where we build can promote GHG emissions reductions.

Table 6: Savings Measures for "How We Build"

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
BUILD – 1	**Commercial Buildings**	Sustainable Parking Lots: Program to reduce the heat island effect through the promotion of parking lot coverings and coatings and semi permeable surfaces for new construction to achieve 20% of existing parking lots, and 80% of new parking lots	K	112	0.6	$58,415	$2,500
BUILD – 2	**Commercial Buildings**	"Cool Roofs": Promote the installation of reflective roofing on commercial properties in the community with recognition for first ten early adopters	K	15	0.1	$8,714	$15,000
BUILD – 3	**Commercial Buildings**	Affordable Housing: Promote the construction of energy-efficient affordable housing with private-sector partners	K	126	0.5	$52,740	$25,000
BUILD – 4	**Commercial Buildings**	New and Efficient Construction: Promote the Savings by Design Program from SCE for new commercial buildings.	K	136	0.5	$47,215	$1,000
BUILD – 5	**Commercial Buildings**	Plan Checks and Permitting: Expedite plan checks and reduce permit and plan check fees by 50% for green building projects and remodels	K	138	1.2	$116,981	$1,000
BUILD – 6	**Residential Buildings**	Green Building Program: Adopt the Voluntary Green Building Program to prepare for enhanced Title 24 requirements and green building standards	A	274	1.4	$139,651	$2,500
BUILD – 7	**Residential Buildings**	Green Building Support Services: Advance the Voluntary Green Building Program to mandatory green building requirement with technical support services	K	548	2.8	$279,303	$50,000

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
BUILD – 8	**Residential Buildings**	Shade Trees: Promote properly sited and selected shade trees in 100% of new construction to reduce heat islands and provide shade to offset air conditioning	K	35	0.1	$12,240	$112,000
BUILD – 9	**Residential Buildings**	Green Homes Tours and Recognition: Provide green builders and green home owners with recognition at Council; support and administer "Green Homes Tours" annually to showcase six projects each year	K	45	0.5	$47,215	$4,000
BUILD – 10	**Water**	Stormwater Capture: Promote storm water capture and retention for exterior landscape use (cisterns, rain barrels) to demonstrate 10 new systems by 2020	K	1	0.0	$2,943	$2,000

Commercial Buildings	**5**	**527**	**3**	**$284,065**	**$44,500**
Residential Buildings	**4**	**902**	**5**	**$478,409**	**$168,500**
Water	**1**	**1**	**0**	**$2,943**	**$2,000**
Subtotal	**10**	**1,430**	**8**	**$765,417**	**$215,000**

How We Get Around (Transportation)

- Alternative fuels (EVs, hybrids, etc.)
- Trip reduction, optimization
- Biking, hiking, and walking
- Buses, shuttles, and transit oriented development
- Transportation infrastructure
- Efficient driving habits through training and ordinances

In Palm Springs, emissions from transportation and "How We Get Around" represent the third largest source of emissions, behind electricity and natural gas. "How We Get Around" shapes the community and has a major footprint.

Thanks to state and regional manufacturing standards and technologies, tailpipe emissions are largely invisible. But because of its location to the east of Los Angeles, prevailing winds drive pollution into the Valley on a daily basis. Air quality and local and regional pollution remain a key issue in the Coachella Valley.

Transportation covers a wide swath of opportunity. It tackles fundamental issues such as the driving patterns associated with land use, the efficiency of vehicles, as well as the use of alternative fuels and alternative methods of getting around. The City of Palm Springs has already made a number of changes in the way it manages its roadways and fleet. Now it considers additional opportunities to create additional economic and environmental benefits.

CVAG is planning a regional transportation alternative called Parkway 1e11 that will have significant health and wellness benefits. The Parkway 1e11 would extend along the Whitewater River and connect all nine Coachella Valley cities with a trail system for walkers, bikes, and neighborhood electric vehicles.

Such a system will create opportunities for recreational activities while reducing vehicle reliance and harmful emissions. Palm Springs will work with regional planners to carefully consider and map out local access points to the proposed trail system as well as potential charging station locations for plug-in electric and neighborhood electric vehicles.

Table 7: Savings Measures for "How We Get Around"

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
MOBILITY – 1	**Transportation**	Electric Vehicles: Work with Electric Automobile Association of Palm Springs to promote the lease and purchase of 1,000 electric vehicles in the community with recognition and preferential parking for participants	K	4,777	17.8	$1,776,649	$40,000
MOBILITY – 2	**Transportation**	Hybrid Vehicles: Promote the purchase of 2,000 hybrid vehicles in the community with recognition and preferential parking for participants	K	5,464	20.3	$2,031,561	$100,000
MOBILITY – 3	**Transportation**	Charging Stations: Foster public/private partnerships to promote 5 EV charging stations with public access	A	23	0.1	$8,358	$12,500
MOBILITY – 4	**Transportation**	Eco-Conscious Driving: Promote eco-conscious driving behavior to increase fuel efficiency by 5 - 10% and minimize emissions and maintenance. Aka "hyper-miling."	K	94	0.4	$35,000	$5,000
MOBILITY – 5	**Transportation**	Biking and Walking: Expand bikeways, trails, and walking paths connecting residential neighborhoods and commerce	K	24	0.0	$4,620	$200,000
MOBILITY – 6	**Transportation**	Employee vehicle miles traveled reduction program: Build on existing rideshare and carpool incentive program for municipal employees	K	330	1.2	$122,802	$5,000
MOBILITY – 7	**Transportation**	Bike, Walking, NEV "Parkway:" Support Parkway 1e11 as a Valley amenity and means to alternative forms of transportation and to promote health in Palm Springs	K	25	0.0	$4,620	$5,000
MOBILITY – 8	**Transportation**	Bike Program: Provide bicycles for daily trips using public/private partnership model	A	38	0.1	$6,486	$5,000
MOBILITY – 9	**Transportation**	Police Bikes: Promote use of bicycles for police use through training and operations support	A	71	0.7	$68,000	$10,000
MOBILITY – 10	**Transportation**	Bus Route Maximization: Collaborate with SunLine officials to reform routes to promote smaller buses with more routes and frequencies to increase ridership by 50%	K	218	1.1	$108,150	$5,000
MOBILITY – 11	**Transportation**	Van Pools: Partner and recognize all Palm Springs major employers with over 50 employees for van pools	K	373	1.4	$138,733	$5,000

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
MOBILITY – 12	**Transportation**	Comprehensive Vehicle Tune-Ups: Introduce and implement "Vehicle Diagnostic Program" to target and incentivize the public to tune and maintain their vehicles on a regular basis	K	235	0.9	$93,240	$5,000
MOBILITY – 13	**Transportation**	Anti-Idling: Pass ordinance that restricts idling (in specific City zones) of greater than 5 minutes for all commercial vehicles	K	100	0.4	$36,000	$2,000
		Transportation	**13**	**11,772**	**44**	**$4,434,219**	**$399,500**
		Subtotal	**13**	**11,772**	**44**	**$4,434,219**	**$399,500**

How We Govern (Municipal)

- Energy management
- Policies, codes, and ordinances
- Economic development
- Regional collaboration

The City of Palm Springs's operations are responsible for 7.1% of total community emissions. Despite this relatively small share or emissions, the City recognizes its disproportionately important role as a leader within the community.

Cities can control the programs and policies they set for their own employees. City facilities can often be used as test beds for new technologies and pilot programs. Through leadership, Palm Springs intends to continue to set an example for the community and throughout the Coachella Valley.

The following policies are measures that are directly under the City's control to engage savings and to reduce emissions. For instance, the City can implement a "Solar Ready" ordinance that would require all new construction to be prepared for solar, including pre-wiring while roof joists and walls are exposed.

List of Potential Ordinances to Affect Sustainability

- ✓ Expedite plan checking for green and efficient new construction/major remodels
  - Residential, Commercial
- ✓ Waive permit fees for green and energy-efficient new construction/major remodels
  - Residential, Commercial
- ✓ Pass more restrictive water conservation ordinance
  - Residential, Commercial
- ✓ Mandate landscaper certification
- ✓ Food waste composting ordinance for restaurants
- ✓ Mandatory Green Building Program
- ✓ Anti-Idling ordinance for commercial vehicles
- ✓ Mandate that all municipal buildings are LEED Silver or better
- ✓ Solar Ready ordinance for new construction
  - Residential, Commercial
- ✓ EV Ready ordinance for all new construction

In conjunction with this Climate Action Plan, an Energy Action Plan for the City of Palm Springs has been developed. This is a roadmap detailing steps the City can take to reduce its own, government operations.

City leadership can be seen in many areas, from land use policies that encourage or even dictate transportation requirements, to purchasing and maintenance policies, to regional collaborations and financing programs. Through outreach and education, the City can involve the community and recognize the accomplishments of individuals, neighborhoods, and groups.

Table 8: Savings Measures for "How We Govern"

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
GOVERN – 1	**Government Initiatives**	Desert Cities Energy Partnership: Continue to actively partner with serving utilities to fully utilize energy efficiency and demand response programs in municipal facilities	A	3,145	13.8	$1,376,705	$2,000
GOVERN – 2	**Government Initiatives**	Municipal Facility Efficiency Upgrades: Approve and abide by the Energy Action Plan and complete measures to reach City goals as Phase 1 (2013-2014)	K	51	0.2	$22,501	$0
GOVERN – 3	**Government Initiatives**	Municipal Facility Efficiency Upgrades: Complete 100% of remaining Energy Action Plan measures…"Phase 3 (2018-2020)"	K	1,186	5.2	$518,293	$0
GOVERN – 4	**Government Initiatives**	Efficient and Green New Construction: Establish policy that 100% of new municipal buildings and major remodels adhere to Voluntary Green Building Program standards and are minimum LEED silver or equivalent	K	182	0.6	$58,290	$2,000
GOVERN – 5	**Government Initiatives**	Utility Manager Software: Maximize use of the Los Angeles County Energy Enterprise Management Information System (EEMIS) to manage municipal facilities	A	294	1.0	$101,529	$5,000

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
GOVERN – 6	**Government Initiatives**	Benchmarking: Abide by Energy Benchmarking Policy to gauge relative energy use and efficiency of municipal facilities	A	196	0.7	$67,685	$5,000
GOVERN – 7	**Government Initiatives**	Retro Commissioning: Abide by the Retro-Commissioning (RCx) policy and guidelines for qualifying municipal buildings	A	196	0.7	$67,685	$2,000
GOVERN – 8	**Government Initiatives**	Group Purchasing: Promote and participate in group purchasing of energy efficiency goods and services with other CVAG cities/tribes	K	10	0.4	$40,000	$2,000
GOVERN – 9	**Renewable Energy**	Public/Private Partnerships: Explore private-public partnerships for renewable energy installations and energy-efficiency upgrades on municipal facilities (performance-based contracts and power purchase agreements).	K	1,376	5.1	$505,890	$10,000
GOVERN – 10	**Renewable Energy**	Solar Ready Ordinance: Develop and implement an ordinance requiring 100% of new homes be solar ready (PV)	K	756	4.4	$436,603	$5,000
GOVERN – 11	**Renewable Energy**	Roof-Mounted Wind Systems: Create an ordinance to enable residential wind turbines and promote the installation of 1000 roof-mounted wind systems on private property by 2020	K	540	3.1	$314,640	$5,000
GOVERN – 12	**Solid Waste**	Reusable Shopping Bags: Provide additional support for program to reduce single use plastic bags (BYOB)	A	1	0.0		$5,000
GOVERN – 13	**Solid Waste**	Recyclable Take-Out Containers: Promote/mandate take-out alternative containers to eliminate use of polystyrene packaging	A	20	0.0		$5,000
GOVERN – 14	**Transportation**	Electric Vehicle Charging Stations: Seek additional grant funding and private sector partnerships to install 20 more EV charging stations on public and private property similar to Riverside County $10,000 grant for one station	K	3,821	14.2	$1,419,600	$5,000
GOVERN – 15	**Transportation**	Transit Oriented Development: Promote transit oriented development to foster development in line with mass transit corridors	K	1,684	2.2	$218,645	$5,000

Government Initiatives	**8**	**5,260**	**23**	**$2,252,688**	**$18,000**
Renewable Energy	**3**	**2,672**	**13**	**$1,257,133**	**$20,000**
Solid Waste	**2**	**21**	**0**	**$0**	**$10,000**
Transportation	**2**	**5,505**	**16**	**$1,638,245**	**$10,000**
Subtotal	**15**	**13,458**	**51**	**$5,148,066**	**$58,000**

Where We Visit and Play (Hospitality/Recreation)

- Spa resorts, hotels, and restaurants
- Golf courses and parks
- Desert-appropriate landscaping
- Water efficiency
- Enhanced visitor transportation

The City of Palm Springs takes great pride in the quality of life in town. Palm Springs is a great place to visit and a great place to live. City leaders are focused on more of the same, if not better! No one wants sustainability to negatively impact the quality of life in Palm Springs nor in its thriving downtown business and retail core.

This Climate Action Plan highlights ways that Palm Springs can at once enhance the visitor experience and lifestyle while becoming ever more sustainable. Gorgeous desert landscaping exemplifies this, as does elegant passive solar design that keeps buildings shaded and cool. This Plan finds win-win solutions, for instance making our buildings more comfortable, while more efficient; making our communities more livable while reducing our footprint.

Palm Springs thrives on attracting and keeping visitors. The City recognizes the value of golf courses, resorts, hotels, clubs and special events to the City. These amenities will continue to be key elements in the sustainability program. The goal of this Plan is to promote efficiency, cut costs, and reduce emissions without impacting the visitor experience. A supporting objective will be to educate visitors to value a more sustainable desert experience.

Table 9: Savings Measures for "Where We Visit and Play"

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
RECREATE – 1	**Cross-Cutting Initiatives**	Ball field Lighting Timers: Promote the installation of timers for all ball field or other recreational lighting at schools and city facilities	K	60	0.2	$22,076	$10,000
RECREATE – 2	**Cross-Cutting Initiatives**	Ecotourism: Form public/private partnership to promote eco-tourism and tours of wind farms, solar arrays, and geothermal systems in the Valley	K	25	2.5	$250,000	$10,000
RECREATE – 3	**Cross-Cutting Initiatives**	Comprehensive Pool Efficiency: Promote comprehensive pool efficiency including variable speed pool pumps, covers, wind breaks, and solar heating for 1000 pools by utilizing SCE and SCG Company incentive programs	K	493	3.5	$354,384	$4,000

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
RECREATE – 4	**Solid Waste**	Net Zero Special Events: Build on Sustainability Manager's work and continue working with the hospitality sector encouraging special purpose events to be sustainable with net zero energy and waste requirements	K	6	0.0	$2,000	$2,000
RECREATE – 5	**Solid Waste**	Green Conferences: Build on Sustainability Manager's work and continue working with hospitality sector to define and promote "green" conference venues, hotels, etc.	A	88	0.2	$20,000	$4,000
RECREATE – 6	**Transportation**	Visitor Shuttles: Collaborate with local hotels and resorts to support and establish effective point-to-point transportation for visitors, e.g. shuttles to airport, hotels, business district	K	3,496	0.3	$29,019	$50,000
RECREATE – 7	**Transportation**	Neighborhood Electric Vehicles: Design and promote Neighborhood Electric Vehicle program to achieve minimum of 200 NEVs for Valley residents and visitors	K	955	1.8	$177,800	$1,000
RECREATE – 8	**Water**	Irrigation System Controls: Promote the installation of irrigation control sensors at parks and golf courses	K	102	1.3	$127,140	$1,000
RECREATE – 9	**Water**	Drought-Tolerant Landscaping: Promote reduced need for golf course irrigation through design and use of drought-tolerant plants	A	26	0.1	$9,437	$1,000

Cross-Cutting Initiatives	**3**	**578**	**6**	**$626,460**	**$24,000**
Solid Waste	**2**	**94**	**0**	**$22,000**	**$6,000**
Transportation	**2**	**4,451**	**2**	**$206,819**	**$51,000**
Water	**2**	**128**	**1**	**$136,577**	**$2,000**
Subtotal	**9**	**5,251**	**10**	**$991,856**	**$83,000**

How We Teach and Learn (Education)

- Student education
- Community centers and youth programs
- Workforce development
- Demonstration projects and community outreach

Palm Springs recognizes that today's students are tomorrow's consumers. How we educate youth has profound impact on the sustainability of Palm Springs, the region, state and even the planet.

Palm Springs also recognizes its unique location at the center of solar, wind, and geothermal potential. The Coachella Valley already has a strong foundation in green certifications. The City

will continue to support workforce development from a young age or through retraining the existing workforce.

Palm Springs will support the continuum of training, starting in elementary schools with California teaching standards, augmented in local high schools thanks to the programs sponsored by the Coachella Valley Economic Partnership, and continuing at local institutions of higher learning: College of the Desert, California State University San Bernardino, and University of California Riverside Palm Desert.

In addition to this, the Coachella Valley iHub, comprised of the Cities of Palm Springs, Cathedral City and Desert Hot Springs, works to provide "a wide variety of programs, services and incentives to start-up businesses focused on creating and developing clean technology. Training also takes place in homes and businesses throughout the community, as residents become aware of new opportunities and often, new incentives.

The City understands its role in raising awareness and understanding of the benefits of sustainability. Palm Springs grants funds to local schools for gardens; the City celebrates Bike Month with events; as well as the annual Arbor Day, the last of which resulted in 600 trees being distributed to area students. While emissions reductions resulting from educational programs are inherently difficult to measure and laced with assumptions and estimates, there is no doubt that ingrained, community-wide efforts can be more substantial and longer-lived than any short-term outside incentive program. Palm Springs values education and will continue to educate its residents of all ages about ways to "go green" for its multiple benefits.

Table 10: Savings Measures for "How We Teach and Learn"

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
LEARN – 1	**Commercial Buildings**	Commercial Sector Green Business: Target and work with minimum of 200 businesses for Green Business Program	K	1,180	3.6	$364,000	$10,000
LEARN – 2	**Cross-Cutting Initiatives**	Green Building Lectures and Continuing Education: Provide lectures, seminars and training on green building based on guide and training materials emphasizing desert conditions and opportunities	K	75	0.4	$35,200	$5,000
LEARN – 3	**Cross-Cutting Initiatives**	Green Citizen Award: Solicit nominations and promote a community Green Citizen (1 each year) to show the value of efficiency and its energy, dollar, and carbon savings	A	25	0.1	$14,442	$2,000
LEARN – 4	**Cross-Cutting Initiatives**	Workforce Development: Promote workforce development in partnership with College of the Desert, UCR, and CSUSB to achieve 1000 "green careers" by 2020	K	4	0.0		$10,000
LEARN – 5	**Transportation**	Bike Week: Support and expand education and awareness of alternative transportation value through Bike to Work and Bike Month Promotion	A	50	0.2	$18,477	$1,000

Commercial Buildings	**1**	**1,180**	**4**	**$364,000**	**$10,000**
Cross-Cutting Initiatives	**3**	**104**	**0**	**$49,642**	**$17,000**
Transportation	**1**	**50**	**0**	**$18,477**	**$1,000**
Subtotal	**5**	**1,334**	**4**	**$432,119**	**$28,000**

V. Implementation

Timeline

This 2013 Climate Action Plan presents a course of action for the next eight years, leveraging large community benefits in the process.

The Plan assumes the City will first achieve the AB 32 target, and then fulfill its U.S. Conference of Mayors Climate Protection Agreement commitment related to the Kyoto Protocol target.

Summary of Measures for AB 32 and Kyoto Targets

AB 32 / Kyoto	# Measures	Emissions Reduced (Tonnes CO_2e)	Estimated Cost to City	Community Savings
AB 32	23	13,075	$206,000	$3,817,227
Kyoto	55	62,909	$885,000	$21,542,926
Totals:	**78**	**75,984**	**$1,091,000**	**$25,360,153**

The Summary of Measures by Greenhouse Gas Sector table below shows that the biggest emissions reductions will come from residential buildings and transportation, followed by government initiatives and commercial buildings.

Summary of Measures by Greenhouse Gas Sector

GHG Sector Linkage	Number of Measures	Annual Savings (Tonnes CO_2e)	Annual Savings	Estimated Implementation Cost to City
Commercial Buildings	**14**	**18,724**	**$6,981,338**	**$144,500**
Cross-Cutting Initiatives	**7**	**4,764**	**$1,659,903**	**$43,000**
Government Initiatives	**8**	**5,260**	**$2,252,688**	**$18,000**
Renewable Energy	**4**	**4,185**	**$2,120,719**	**$24,000**
Residential Buildings	**11**	**11,726**	**$3,608,233**	**$245,000**
Solid Waste	**7**	**7,850**	**$366,552**	**$81,000**
Transportation	**21**	**22,261**	**$6,457,780**	**$466,500**
Water/Wastewater	**6**	**1,214**	**$1,912,941**	**$69,000**
GRAND TOTAL OF EMISSION REDUCTION MEASURES	**78**	**75,984**	**$25,360,153**	**$1,091,000**

The following table presents recommended savings measures for Palm Springs. To reach AB 32 Targets, 23 measures with annual emissions reductions of 13,075 tonnes are included that have a gross cost to the City of $206,000. Only a subset of these will be required to reduce emissions by 4,263 tonnes. This phase of activities primarily relies on ordinances, public education, utility programs, regional financing, and public/private partnerships to achieve the goals.

Table 11: Measures to Reach AB 32 Target

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
WORK – 2	**Commercial Buildings**	Peak Demand Reduction: Collaborate with SCE and encourage 100 businesses to enroll in Energy Efficiency and Demand Response programs such as the Summer Discount Program	A	193	1.0	$96,900	$2,000
WORK – 3	**Commercial Buildings**	Energy-Efficient, Commercial-Sector Lighting: Promote and leverage existing incentives for efficient lighting and educate and locally incent building owners to eliminate any remaining T-12 lamps in commercial buildings	A	704	2.6	$258,930	$5,000
LIVE – 1	**Cross-Cutting Initiatives**	Save a Ton Campaign: Work with CVAG to further develop and locally market the Save a Ton campaign, unlocking energy, dollar, and carbon savings in 30% of the housing stock	A	4,082	9.8	$983,801	$2,000
LEARN – 3	**Cross-Cutting Initiatives**	Green Citizen Award: Solicit nominations and promote a community Green Citizen (1 each year) to show the value of efficiency and its energy, dollar, and carbon savings	A	25	0.1	$14,442	$2,000
GOVERN – 1	**Government Initiatives**	Desert Cities Energy Partnership: Continue to actively partner with serving utilities to fully utilize energy efficiency and demand response programs in municipal facilities	A	3,145	13.8	$1,376,705	$2,000
GOVERN – 5	**Government Initiatives**	Utility Manager Software: Maximize use of the Los Angeles County Energy Enterprise Management Information System (EEMIS) to manage municipal facilities	A	294	1.0	$101,529	$5,000
GOVERN – 6	**Government Initiatives**	Benchmarking: Abide by Energy Benchmarking Policy to gauge relative energy use and efficiency of municipal facilities	A	196	0.7	$67,685	$5,000
GOVERN – 7	**Government Initiatives**	Retro Commissioning: Abide by the Retro-Commissioning (RCx) policy and guidelines for qualifying municipal buildings	A	196	0.7	$67,685	$2,000
LIVE – 3	**Residential Buildings**	Pool Pumps: Promote high-efficiency, variable speed pool pumps to households at community fairs and retail outlets to achieve minimum of 500 units	A	247	1.1	$107,856	$50,000
LIVE – 4	**Residential Buildings**	Energy-Efficient Lighting: Purchase approx. 2,000 compact fluorescent lamps and LEDs for giveaways to demonstrate their value in homes and leverage ten times the number in household and business applications	A	279	2.0	$200,376	$6,000
LIVE – 5	**Residential Buildings**	Peak Demand Reduction: Partner with SCE to provide local promotion of the residential Summer Discount Program to cut peak demand in 10% of the housing stock	A	204	0.4	$41,742	$2,000
BUILD – 6	**Residential Buildings**	Green Building Program: Adopt the Voluntary Green Building Program to prepare for enhanced Title 24 requirements and green building standards	A	274	1.4	$139,651	$2,500
LIVE – 10	**Solid Waste**	Solid Waste Diversion: Increase solid waste diversion rate by 5% to 80.1% by 2015 potentially through awareness programs, recognition and other financial instruments	A	2,763	1.0	$100,000	$20,000

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
GOVERN – 12	**Solid Waste**	Reusable Shopping Bags: Provide additional support for program to reduce single use plastic bags (BYOB)	A	1	0.0		$5,000
GOVERN – 13	**Solid Waste**	Recyclable Take-Out Containers: Promote/mandate take-out alternative containers to eliminate use of polystyrene packaging	A	20	0.0		$5,000
RECREATE – 5	**Solid Waste**	Green Conferences: Build on Sustainability Manager's work and continue working with hospitality sector to define and promote "green" conference venues, hotels, etc.	A	88	0.2	$20,000	$4,000
WORK – 10	**Transportation**	Car-Pooling and Mass Transit: Promote "Shared Vehicle at Work" programs to increase carpooling and mass transit by 20% with a "guaranteed-ride home"	A	114	0.2	$22,650	$2,000
MOBILITY – 3	**Transportation**	Charging Stations: Foster public/private partnerships to promote 5 EV charging stations with public access	A	23	0.1	$8,358	$12,500
MOBILITY – 8	**Transportation**	Bike Program: Provide bicycles for daily trips using public/private partnership model	A	38	0.1	$6,486	$5,000
MOBILITY – 9	**Transportation**	Police Bikes: Promote use of bicycles for police use through training and operations support	A	71	0.7	$68,000	$10,000
LEARN – 5	**Transportation**	Bike Week: Support and expand education and awareness of alternative transportation value through Bike to Work and Bike Month Promotion	A	50	0.2	$18,477	$1,000
LIVE – 15	**Water**	Drought-Tolerant Landscaping: Continue to promote and augment rebates for individual residences and HOAs for Lawn Buy Back Program and drought-tolerant landscaping	A	43	1.1	$106,519	$55,000
RECREATE – 9	**Water**	Drought-Tolerant Landscaping: Promote reduced need for golf course irrigation through design and use of drought-tolerant plants	A	26	0.1	$9,437	$1,000

Commercial Buildings	**2**	**897**	**4**	**$355,830**	**$7,000**
Cross-Cutting Initiatives	**2**	**4,107**	**10**	**$998,243**	**$4,000**
Government Initiatives	**4**	**3 ,831**	**16**	**$1,613,604**	**$14,000**
Residential Buildings	**4**	**1,004**	**5**	**$489,625**	**$60,500**
Solid Waste	**4**	**2,872**	**1**	**$120,000**	**$34,000**
Transportation	**5**	**296**	**1**	**$123,970**	**$30,500**
Water	**2**	**69**	**1**	**$115,956**	**$56,000**

Subtotal of AB 32 Measures	**23**	**13,075**	**38**	**$3,817,227**	**$206,000**

These savings measures will leverage community benefit, creating aggregate lifecycle savings of $3,817,227 for the community, and creating approximately 38 jobs expressed as annual full-time equivalent positions.

Reaching the Kyoto Protocol Target

An additional set of measures is presented to achieve the Kyoto Protocol target of 7% below 1990 levels prescribed by the U.S. Conference of Mayors. (Note that this target was intended to be fulfilled by 2012, but will now be extended to the 2020 planning horizon in this Plan.) The Kyoto Protocol target will require an additional 34,513 tonnes of annual emissions reductions after achieving the AB 32 target. Many measures from

Table 11 will likely be implemented to progress toward the Kyoto Protocol target. Note that Table 12 presents additional measures with aggregate emissions reductions of 62,909 tonnes, well beyond the reductions required to achieve the Kyoto Protocol target.

The following measures expand the base of measures to be considered for implementation in Palm Springs. PACE financing will likely be key to major building upgrades. As real estate development picks up, the green building program will also steer infrastructure upgrades towards sustainability. Advances in mobility and auto efficiency will drive down transportation-related emissions.

The roster of specific implementation measures selected will be determined by Council and staff in years to come based on measuring and tracking the progress with emissions reductions. Ultimately, all measures will be based on economic conditions, additional regulation, advances in technology and financing. The City will also track and prepare for advances in the California Executive Order that calls for an emissions reduction of 80% from 1990 levels by 2050.[16]

Table 12: Measures for Reaching Kyoto Protocol

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
WORK - 1	**Commercial Buildings**	Commercial Energy Audits: Work with Desert City Energy Partnership to promote energy audits for 500,000 square feet of commercial buildings and confirm replacement/upgrade schedule	K	365	1.2	$122,829	$12,000
WORK - 4	**Commercial Buildings**	SCE Business Incentives: Promote and leverage existing incentives for efficient lighting and energy efficiency upgrades for small businesses through SCE's Express Solutions Program, for specific industries such as Hospitality, Gov./Institutions, Office, Retail, Small Business, Water Wastewater through SCE's Energy Management Solutions program, and partner with SCE for large businesses through the Continuous Energy Improvement Program (savings from non-PACE-funded projects)	K	267	1.0	$98,154	$2,000
WORK - 5	**Commercial Buildings**	Integrated Lighting Systems: Promote SCE's Energy Management Solutions' energy-efficient lighting linked to building controls and occupancy sensors in minimum of 1 million square feet of commercial space	K	822	5.0	$496,282	$60,000
WORK - 6	**Commercial Buildings**	"The Temperature Club:" Promote community partnership through policies to adjust indoor temperatures to save/degree, by way of the "Green Business Partnership"	K	97	0.5	$48,450	$2,000

[16] California Executive Order S-3-05, June 2005.

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
WORK - 7	**Commercial Buildings**	Commercial PACE Program: Partner and aggressively promote commercial PACE program to provide commercial property owners —from retail to resorts—with property-secured funding for 100% of the cost of energy efficiency upgrades/renewable energy installations	K	10,319	36.8	$3,677,730	$5,000
WORK - 8	**Commercial Buildings**	Commercial On-Bill Financing/Repayment: Encourage On-Bill Financing/Repayment through SCE and SCG with green messaging and teamwork in the community	K	4,250	15.3	$1,533,998	$2,000
BUILD - 1	**Commercial Buildings**	Sustainable Parking Lots: Program to reduce the heat island effect through the promotion of parking lot coverings and coatings and semi permeable surfaces for new construction to achieve 20% of existing parking lots, and 80% of new parking lots	K	112	0.6	$58,415	$2,500
BUILD - 2	**Commercial Buildings**	"Cool Roofs": Promote the installation of reflective roofing on commercial properties in the community with recognition for first ten early adopters	K	15	0.1	$8,714	$15,000
BUILD - 3	**Commercial Buildings**	Affordable Housing: Promote the construction of energy-efficient affordable housing with private-sector partners	K	126	0.5	$52,740	$25,000
BUILD - 4	**Commercial Buildings**	New and Efficient Construction: Promote the Savings by Design Program from SCE for new commercial buildings.	K	136	0.5	$47,215	$1,000
BUILD - 5	**Commercial Buildings**	Plan Checks and Permitting: Expedite plan checks and reduce permit and plan check fees by 50% for green building projects and remodels	K	138	1.2	$116,981	$1,000
LEARN - 1	**Commercial Buildings**	Commercial Sector Green Business: Target and work with minimum of 200 businesses for Green Business Program	K	1,180	3.6	$364,000	$10,000
RECREATE - 1	**Cross-Cutting Initiatives**	Ball field Lighting Timers: Promote the installation of timers for all ball field or other recreational lighting at schools and city facilities	K	60	0.2	$22,076	$10,000
RECREATE - 2	**Cross-Cutting Initiatives**	Ecotourism: Form public/private partnership to promote eco-tourism and tours of wind farms, solar arrays, and geothermal systems in the Valley	K	25	2.5	$250,000	$10,000
RECREATE - 3	**Cross-Cutting Initiatives**	Comprehensive Pool Efficiency: Promote comprehensive pool efficiency including variable speed pool pumps, covers, wind breaks, and solar heating for 1000 pools by utilizing SCE and SCG Company incentive programs	K	493	3.5	$354,384	$4,000
LEARN - 2	**Cross-Cutting Initiatives**	Green Building Lectures and Continuing Education: Provide lectures, seminars and training on green building based on guide and training materials emphasizing desert conditions and opportunities	K	75	0.4	$35,200	$5,000
LEARN - 4	**Cross-Cutting Initiatives**	Workforce Development: Promote workforce development in partnership with College of the Desert, UCR, and CSUSB to achieve 1000	K	4	0.0		$10,000

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
		"green careers" by 2020					
GOVERN - 2	**Government Initiatives**	Municipal Facility Efficiency Upgrades: Approve and abide by the Energy Action Plan and complete measures to reach City goals as Phase 1 (2013-2014)	K	51	0.2	$22,501	$0
GOVERN - 3	**Government Initiatives**	Municipal Facility Efficiency Upgrades: Complete 100% of remaining Energy Action Plan measures…"Phase 3 (2018-2020)"	K	1,186	5.2	$518,293	$0
GOVERN - 4	**Government Initiatives**	Efficient and Green New Construction: Establish policy that 100% of new municipal buildings and major remodels adhere to Voluntary Green Building Program standards and are minimum LEED silver or equivalent	K	182	0.6	$58,290	$2,000
GOVERN - 8	**Government Initiatives**	Group Purchasing: Promote and participate in group purchasing of energy efficiency goods and services with other CVAG cities/tribes	K	10	0.4	$40,000	$2,000
LIVE - 2	**Renewable Energy**	Solar "Model Citizens": Promote solar photovoltaic systems and solar thermal systems for residential homeowners to develop 100 "model citizen" systems in Palm Springs	K	1,513	8.6	$863,586	$4,000
GOVERN - 9	**Renewable Energy**	Public/Private Partnerships: Explore private-public partnerships for renewable energy installations and energy-efficiency upgrades on municipal facilities (performance-based contracts and power purchase agreements).	K	1,376	5.1	$505,890	$10,000
GOVERN - 10	**Renewable Energy**	Solar Ready Ordinance: Develop and implement an ordinance requiring 100% of new homes be solar ready (PV)	K	756	4.4	$436,603	$5,000
GOVERN - 11	**Renewable Energy**	Roof-Mounted Wind Systems: Create an ordinance to enable residential wind turbines and promote the installation of 1000 roof-mounted wind systems on private property by 2020	K	540	3.1	$314,640	$5,000
LIVE - 6	**Residential Buildings**	Household Efficiency Audits: Partner with SCE and SCG to provide local promotion for the Home Energy Efficiency Survey to "self audit" homes	K	447	1.8	$175,970	$2,500
LIVE - 7	**Residential Buildings**	Plan Checking and Permitting: Expedite plan check process and reduce permit fees by 50% for energy-efficiency measures and remodels and renewable energy installations to reduce carbon emissions	K	224	0.1	$8,798	$10,000
LIVE - 8	**Residential Buildings**	Residential PACE: Continue to partner and aggressively promote Residential PACE Program to reach 15% of homes with property-secured funding for 100% of the cost of energy upgrades and renewable energy systems in eight years	K	5,914	17.1	$1,712,027	$4,000
LIVE - 9	**Residential Buildings**	On-Bill Finance/Repayment: Partner with SCE and SCG to locally promote on-bill financing/repayment for residential energy efficiency retrofits in 15% of housing stock	K	3,509	8.8	$883,055	$2,000
BUILD - 7	**Residential Buildings**	Green Building Support Services: Advance the Voluntary Green Building Program to	K	548	2.8	$279,303	$50,000

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
		mandatory green building requirement with technical support services					
BUILD - 8	**Residential Buildings**	Shade Trees: Promote properly sited and selected shade trees in 100% of new construction to reduce heat islands and provide shade to offset air conditioning	K	35	0.1	$12,240	$112,000
BUILD - 9	**Residential Buildings**	Green Homes Tours and Recognition: Provide green builders and green home owners with recognition at Council; support and administer "Green Homes Tours" annually to showcase six projects each year	K	45	0.5	$47,215	$4,000
LIVE - 11	**Solid Waste**	Solid Waste Diversion: Increase solid waste diversion rate by an additional 10% to 90.1% by 2020 potentially through awareness programs, recognition and other financial instruments	K	4,931	2.0	$200,000	$40,000
WORK - 9	**Solid Waste**	Food Waste Composting at Restaurants: Facilitate and increase restaurant composting program for food waste to reach 50 restaurants that serve more than 100 meals a day	K	41	0.4	$44,552	$5,000
RECREATE - 4	**Solid Waste**	Net Zero Special Events: Build on Sustainability Manager's work and continue working with the hospitality sector encouraging special purpose events to be sustainable with net zero energy and waste requirements	K	6	0.0	$2,000	$2,000
LIVE - 12	**Transportation**	Development Planning: Promote pilot program to bring amenities and limited services into communities to shorten commutes and promote walking	K	2	0.0	$924	$1,000
WORK - 11	**Transportation**	Telecommuting: Promote telecommuting and flex-time for local businesses to achieve and track 250 teleworkers in Palm Springs	K	367	1.4	$136,447	$2,000
MOBILITY - 1	**Transportation**	Electric Vehicles: Work with Electric Automobile Association of Palm Springs to promote the lease and purchase of 1,000 electric vehicles in the community with recognition and preferential parking for participants	K	4,777	17.8	$1,776,649	$40,000
MOBILITY - 2	**Transportation**	Hybrid Vehicles: Promote the purchase of 2,000 hybrid vehicles in the community with recognition and preferential parking for participants	K	5,464	20.3	$2,031,561	$100,000
MOBILITY - 4	**Transportation**	Eco-Conscious Driving: Promote eco-conscious driving behavior to increase fuel efficiency by 5 - 10% and minimize emissions and maintenance. Aka "hyper-miling."	K	94	0.4	$35,000	$5,000
MOBILITY - 5	**Transportation**	Biking and Walking: Expand bikeways, trails, and walking paths connecting residential neighborhoods and commerce	K	24	0.0	$4,620	$200,000
MOBILITY - 6	**Transportation**	Employee vehicle miles traveled reduction program: Build on existing rideshare and carpool incentive program for municipal employees	K	330	1.2	$122,802	$5,000

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
MOBILITY - 7	**Transportation**	Bike, Walking, NEV "Parkway:" Support Parkway 1e11 as a Valley amenity and means to alternative forms of transportation and to promote health in Palm Springs	K	25	0.0	$4,620	$5,000
MOBILITY - 10	**Transportation**	Bus Route Maximization: Collaborate with SunLine officials to reform routes to promote smaller buses with more routes and frequencies to increase ridership by 50%	K	218	1.1	$108,150	$5,000
MOBILITY - 11	**Transportation**	Van Pools: Partner and recognize all Palm Springs major employers with over 50 employees for van pools	K	373	1.4	$138,733	$5,000
MOBILITY - 12	**Transportation**	Comprehensive Vehicle Tune-Ups: Introduce and implement "Vehicle Diagnostic Program" to target and incentivize the public to tune and maintain their vehicles on a regular basis	K	235	0.9	$93,240	$5,000
MOBILITY - 13	**Transportation**	Anti-Idling: Pass ordinance that restricts idling (in specific City zones) of greater than 5 minutes for all commercial vehicles	K	100	0.4	$36,000	$2,000
GOVERN - 14	**Transportation**	Electric Vehicle Charging Stations: Seek additional grant funding and private sector partnerships to install 20 more EV charging stations on public and private property similar to Riverside County $10,000 grant for one station	K	3,821	14.2	$1,419,600	$5,000
GOVERN - 15	**Transportation**	Transit Oriented Development: Promote transit oriented development to foster development in line with mass transit corridors	K	1,684	2.2	$218,645	$5,000
RECREATE - 6	**Transportation**	Visitor Shuttles: Collaborate with local hotels and resorts to support and establish effective point-to-point transportation for visitors, e.g. shuttles to airport, hotels, business district	K	3,496	0.3	$29,019	$50,000
RECREATE - 7	**Transportation**	Neighborhood Electric Vehicles: Design and promote Neighborhood Electric Vehicle program to achieve minimum of 200 NEVs for Valley residents and visitors	K	955	1.8	$177,800	$1,000
LIVE - 13	**Water**	Water Conservation Ordinance: Build on and exceed current water conservation programs, including Veolia rebate and Tap It! Partnership programs, by 15% community-wide by 2020	K	1,036	16.7	$1,666,850	$5,000
LIVE - 14	**Water**	Gray water-Ready Ordinance: Require all new residential development to be constructed for easy implementation of gray water systems that redirect water from wash basins, showers, and tubs	K	6	0.0	$52	$5,000
BUILD - 10	**Water**	Stormwater Capture: Promote storm water capture and retention for exterior landscape use (cisterns, rain barrels) to demonstrate 10 new systems by 2020	K	1	0.0	$2,943	$2,000
RECREATE - 8	**Water**	Irrigation System Controls: Promote the installation of irrigation control sensors at parks and golf courses	K	102	1.3	$127,140	$1,000
		Commercial Buildings	**12**	**7,827**	**66**	**$6,625,508**	**$137,500**

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City
		Cross-Cutting Initiatives	5	657	7	$661,660	$39,000
		Government Initiatives	4	1,429	6	$639,084	$4,000
		Renewable Energy	4	4,185	21	$2,120,719	$24,000
		Residential Buildings	7	10,722	31	$3,118,608	$184,500
		Solid Waste	3	4,978	2	$246,552	$47,000
		Transportation	16	21,966	63	$6,333,810	$436,000
		Water	4	1,145	18	$1,796,985	$13,000
		Subtotal of Kyoto Measures	55	62,909	215	$21,542,926	$885,000

VI. Tracking Results and Measuring Progress

The practice of reducing greenhouse gas emissions is new to most California cities and tribes. While many of the policies, programs, and initiatives are familiar—they address electric efficiency, water use, our mobility, etc.—they are presented in this Climate Action Plan in a new way and with a new focus. Many assumptions are made, making the practice of measuring actual results all the more important to direct mid-course programmatic changes as need be.

The City of Palm Springs will continue to track climate action results to verify reductions and to gauge the savings measures' impacts toward the goals set. Progress reports will be provided quarterly to the Council by a designated staff member, with an annual report of greater depth flagging overall progress, key accomplishments and lessons, as well as challenges to successful implementation.

Each year, the Sustainability Coordinator, with the support of staff and consultants as need be, will review the progress toward the City's climate protection goals. The potential for interns to assist in this process is being evaluated. Metrics that will be tracked for both municipal operations and community-wide include…resource savings, economic savings, job creation, and carbon reductions:

Resource Savings

- Kilowatt-hour savings
- Therms of natural gas savings
- Gasoline and other transportation fuel savings
- Water savings
- Recycling diversion rate

Economic Savings

- Electricity bill savings
- Natural gas bill savings
- Water efficiency savings
- Other resource savings

Job Creation

- Types of jobs
- Number of jobs
- Economic development value

Greenhouse Gas Savings

- Source of emissions reductions
- Tonnes of emissions reductions

- Cost per tonne of avoided emissions
- Percentage of reduction goal achieved in each period

Economic values will be considered and analyzed to track discrepancies with the Plan, and to update the Plan accordingly. Which programs are successful? Which areas need additional support? What new opportunities are on the horizon? A working draft will be maintained with quarterly updates; every two years the Climate Action Plan will be updated and reissued.

Finally, Palm Springs will make the Climate Action Plan easily accessible to its members and stakeholders. The City will provide mechanisms for comments from citizens and staff using online survey tools and hard copy input sheets. Every two years, Palm Springs will plan and provide a community forum for interested stakeholders to keep them apprised of the work the City is doing and the progress that is being made and to solicit updated input for prioritization of actions.

Appendix A: Glossary of Terms and Abbreviations

This glossary contains definitions for terms and abbreviations used in this Plan. The definitions were adapted from a number of sources including the U.S. Environmental Protection Agency, the California Air Quality Board website, Merriam-Webster Online, and Wikipedia.

AB 32: See California Assembly Bill 32, the *Global Warming Solutions Act of 2006.*

Adaptation: The ability of a system to adjust to the potential impacts of climate change or other environmental disturbances. Compare to "Mitigation," which means the ability to reduce the amount of emissions caused by an activity.

Alternative Fuels: Substitutes for traditional fossil-fuel-derived liquid motor vehicle fuels like gasoline and diesel. Alternative fuels include biodiesel, hydrogen, electricity, compressed natural gas, methanol, ethanol, and mixtures of alcohol-based fuels with gasoline.

Alternative Fuel Vehicle: A vehicle powered by an alternative fuel as opposed to traditional gasoline or diesel.

Anthropogenic: Refers to greenhouse gas emissions or reductions that are a direct result of human activities.

Assembly Bill 32 (AB 32): The *Global Warming Solutions Act of 2006* is the law that set the State of California's 2020 greenhouse gas emissions reduction target of reducing greenhouse gas emissions to 1990 levels. It also directed the California Air Resources Board to develop a Scoping Plan to outline how best to reach the 2020 target.

Atmosphere: The blanket of air surrounding the earth that supports life. The atmosphere absorbs energy from the sun and retains heat. It also recycles water and other chemicals and protects the earth from high-energy radiation and the frigid vacuum of space.

Baseline Emissions: The amount of greenhouse gas emissions released in a designated year against which future changes in emissions levels are measured. For Green for Life jurisdictions, the baseline year is 2010, selected at the year for which the best data were available.

Business as Usual (BAU): What to expect in the normal course of events.

Biodiesel: A form of diesel fuel manufactured from vegetable oils (used or new) or animal fats. Biodiesel can be used in its pure form (B100) or blended with petroleum diesel in varying proportions.

Building Envelope: The physical separation between the interior and the exterior of a building – made up of the walls and insulation, windows and doors, roof, foundation, etc. The envelope

serves as the outer shell (sometimes called the skin) of the building, and allows for control of the indoor environment (e.g., heating, cooling, moisture control, air pressure).

California Public Utilities Commission (CPUC): Regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. Its purpose is to "protect consumers and ensure the provision of safe, reliable utility service and infrastructure at reasonable rates, with a commitment to environmental enhancement and a healthy California economy."

Carbon Dioxide (CO_2): The greenhouse gas whose concentration is being most affected by human activities. CO_2 also serves as the reference to compare all other greenhouse gases (see Carbon Dioxide Equivalencies). The major source of CO_2 emissions is fossil fuel combustion. Significant CO_2 emissions are also produced by forest clearing, biomass burning, and non-energy production processes such as cement production.

Carbon Dioxide Equivalent (CO_2e): A metric used to compare emissions of various greenhouse gases. The greenhouse gas inventory process converts all other gases to their carbon dioxide equivalents by multiplying the mass of the gas by its global warming potential.

Carbon Footprint: The total set of greenhouse gas emissions caused directly and indirectly by an individual, organization, event, or product. The Green for Life Greenhouse Gas Inventory measures the carbon footprint of local government operations as well as of the entire community.

Climate: The average weather (usually taken over a 30-year time period) for a particular region and time period. Climate is not the same as weather. It is the average pattern of weather for a particular region. Climatic elements include average annual temperature, humidity, sunshine, wind speed, precipitation, and other measures of atmospheric conditions.

Climate Action Plan: A plan that is set in place for a city or other jurisdiction to follow in order to control and improve its energy use and emissions.

Coachella Valley Association of Governments (CVAG): The regional planning agency coordinating government services in the Coachella Valley, providing solutions to common issues of the local governments and tribes that are members.

Demand Response: Actions or programs offered by the local utility to induce ratepayers to temporarily reduce or shift electrical consumption when so requested. These requests would typically be in response to either a constrained electrical grid or suddenly increasing electrical prices.

Emissions: Pollution (including noise, heat, radiation, and greenhouse gases) discharged into the atmosphere by individual, residential, commercial, and industrial activities and facilities. A greenhouse inventory measures emissions from a variety of sources (for example, from the

burning of natural gas or of transportation fuels) and sectors (such as from industrial or residential buildings).

Emissions Coefficients: The greenhouse gas "impact" that comes from a given utility's fuel mix. Every electric utility, for example, generates power from a "portfolio" of power sources: natural gas plants, nuclear plants, dams, etc. That utility's emissions coefficients are determined by its specific mix. The coefficients change year-to-year.

Energy Conservation: Reducing energy consumption. Energy conservation can be achieved by behavioral change, for instance turning off appliances and idle equipment, slightly raising temperatures, etc. Versus "energy efficiency" that is based on advanced technologies and getting the most productivity from each unit of energy.

Energy Efficiency: Using less energy to provide the same level of service or complete the same task. For example, a more efficient light will use less electricity to provide the same amount of illumination.

California Executive Order S-03-05: on June 1, 2005, Governor Schwarzenegger signed Executive Order S-3-05 which established the climate change emission reduction targets for California: By 2010, reduce emissions to 2000 levels; by 2020, reduce emissions to 1990 levels; and by 2050, reduce emissions to 80 percent below 1990 levels.

Flexible Work Arrangements: Work arrangements that allow employees to deviate from a set schedule or location. This could include options for telecommuting, working a compressed work week, and starting or ending the workday at times other than conventional shift times.

Fuel Efficiency: The distance a vehicle can travel on an amount of fuel. This is most often measured in miles traveled per gallon of fuel. A higher-efficiency vehicle travels farther on a gallon of fuel than similar vehicles.

Fuel Mix: Every electric utility generates power from a "portfolio" of power sources: natural gas plants, nuclear plants, dams, etc. That utility's fuel mix determines its emissions rate per kWh of electricity produced. In California, the Renewable Portfolio Standard regulates the utility fuel mix.

Fugitive Emissions: Miscellaneous emissions released from a given activity, like refrigerants released as a result of leaks, fertilizers from golf courses, etc.

General Plan: A long-range policy document to guide land use decisions about physical, economic, and environmental growth. California State law requires counties and cities to have a General Plan which contains seven elements: Land Use; Transportation; Housing; Open Space; Conservation; Safety; and Noise. County general plans cover unincorporated areas.

Global Protocol for Community-Scale GHG Emissions (GPC): A tool to assist local governments to develop community-scale inventories, developed by C40 Cities Climate Leadership Group

and ICLEI Local Governments for Sustainability In collaboration with: World Bank, UNEP, UN-HABITAT, World Resources Institute.

Global Warming: An increase in the near-surface temperature of the Earth. Global warming has occurred in the distant past as the result of natural influences, but the term is most often used to refer to the warming occurring now or predicted to occur as a result of increased emissions of greenhouse gases due to human activity.

Global Warming Potential: A value that is used to compare the abilities of different greenhouse gases to trap heat in the atmosphere. GWPs are based on the heat-absorbing ability of each gas relative to that of carbon dioxide (CO_2), as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years). For example, methane has a global warming potential of 21.

Green Building: A structure constructed using materials and building practices that reduce its impact on the environment throughout its entire life (siting, design, construction, operations, and deconstruction). Green buildings are resource efficient, using less energy, water, and other materials.

Green Infrastructure: The network of trees, plants, and natural ecosystems in a community. These provide services to a community, such as decreasing rainwater runoff, providing healthy soils, removing air pollutants and greenhouse gases from atmosphere, and providing shade and beautification.

Greenhouse Effect: Carbon dioxide and other atmospheric gases warm the surface of the planet by trapping heat close to the surface of the earth. In a natural state, the greenhouse effect warms the planet, making it habitable by humans. However, human activities have increased the amount of carbon dioxide and other greenhouse gases in the atmosphere. Higher levels of greenhouse gases trap more heat, causing temperatures to rise.

Greenhouse Gas (GHG): A gas, including water vapor, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) among others, which traps heat close to the surface of the earth, contributing to global warming and climate change.

Greenhouse Gas Inventory (GHG Inventory): The EPA defines a GHG Inventory as follows: **"**A greenhouse gas inventory is an accounting of greenhouse gases (GHGs) emitted to or removed from the atmosphere over a period of time. Policy makers use inventories to establish a baseline for tracking emission trends, developing mitigation strategies and policies, and assessing progress. An inventory is usually the first step taken by entities that want to reduce their GHG emissions."

Infrastructure: The basic shared physical structures needed for an urban area to function in an efficient, safe manner. The term typically refers to items such as roads, drinking water systems, sewers, energy systems, and telecommunication systems in a community.

Grid: The transmission and distribution system for electricity made up of a network of synchronized power providers and operated by one or more control centers. The United States mainland has three grids: the Eastern Interconnect, the Western Interconnect, and the Texas Interconnect.

International Council for Local Government Initiatives, now known as Local Governments for Sustainability USA (ICLEI): International organization at the forefront of measuring greenhouse gases and developed the first GHG inventories starting in 1990. Today, members come from 70 countries and represent more than 569,885,000 people. ICLEI provides technical consulting, training, and information services to build capacity, share knowledge, and support local government in the implementation of sustainable development at the local level.

Intergovernmental Panel on Climate Change (IPCC): The leading international body for the assessment of climate change. It was established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) in 1988 to provide the world with a clear scientific view on the current state of knowledge in climate change and its potential environmental and socio-economic impacts.

Local Government Operations Protocol (LGOP): A standard set of guidelines developed by ICLEI, the World Resources Institute and the California Air Quality Board, aimed at assisting local governments to develop their greenhouse gas inventories.

Kilowatt (kW): A unit of power equal to one thousand watts. The amount of power that a power source has the capacity to generate is typically measured in terms of kW or, in the case of larger systems, in terms of megawatts (MW). Kilowatt-hour (kWh), by contrast, is a measure of how much energy is actually used or generated over a specific period of time.

Kilowatt-hour (kWh): An amount of electricity equivalent to the use of one kilowatt for one hour. A one hundred watt light bulb that is on for 10 hours uses one kilowatt-hour of electricity (100 watts x 10 hours = 1,000 watt-hours = 1 kilowatt-hour).

Kyoto Protocol: A treaty negotiated in December 1997 at the City of Kyoto, Japan. It committed its signatories to reduce their collective emissions of greenhouse gases by 5.2% compared to the year 1990. Some 37 industrialized countries and the European Community signed the treaty, which provided for a number of flexible mechanisms to reach the reductions goals. The United States did not sign the treaty, and Canada withdrew from the treaty in 2011.

Leadership in Energy and Environmental Design (LEED): A building certification program run under the auspices of the U.S. Green Building Council (USGBC). LEED concentrates its efforts on improving performance across five key areas of environmental and human health: energy efficiency, indoor environmental quality, materials selection, sustainable site development and water savings.

Measures: The primary component of the Climate Action Plan. The measures are specific short and long-term policies, programs, and actions that the jurisdiction will carry out to reduce its greenhouse gas emissions.

Megawatt (MW): One million watts. A typical power plant generates 500 - 1,000 MW of power.

Methane (CH_4): A greenhouse gas that traps 21 times the amount of heat as carbon dioxide. Methane is produced through the decomposition of waste in landfills, animal digestion, decomposition of animal wastes, incomplete fossil fuel combustion, and the production and distribution of natural gas, oil, and coal.

Metric Ton (or tonne): Common international measurement for the quantity of greenhouse gas emissions. A metric ton is equal to 2,205 lbs or 1.1 short tons. It is the common form of ton used in the United States.

Mitigation: A human intervention to either reduce the amount of greenhouse gases being emitted into the atmosphere or remove previously emitted gases from the atmosphere.

Nitrous Oxide (N_2O): A powerful greenhouse gas with the ability to trap 310 times the amount of heat as a molecule of CO_2. Major sources of nitrous oxide include soil cultivation practices, especially the use of commercial and organic fertilizers, fossil fuel combustion, nitric acid production, and biomass burning.

Off-Peak: The opposite of Peak (see below), that is, the time or hours of the day when demand for electricity is at its lowest and thus prices are also lower.

Property Assessed Clean Energy financing (PACE): PACE financing, first enabled in California by AB 811 (2008) and then spreading across the country, makes it possible for financing of energy upgrades to be repaid via a property tax assessment. PACE programs may be set up, funded and administered by local governments or by third parties.

Peak Usage Period or Peak Demand: The time period during which the maximum level of demand for electricity occurs. Peak demand may be measured daily, monthly, seasonally or yearly, but for a utility it is typically the single half hour or hour representing the highest point of customer consumption of electricity on a given day.

Photovoltaic (PV): Refers to the effect of sunlight (photons) generating electricity without mechanical conversion. Typically used in conjunction with the equipment associated with a solar electric system, such as “PV panels” or “PV system.”

Renewable Energy/Power: Energy generated from sources that are naturally replenished or not used up in the course of providing power (e.g., wind, solar, biomass, and geothermal). This is in contrast to the burning of fossil fuels, which destroys the fuel source and thereby depletes the overall amount of fuel available.

Renewable Portfolio Standard (RPS): Each electric utility generates power through a "portfolio" of sources: natural gas power plants, nuclear plants, large hydroelectric plants, etc. In California, the make-up of the portfolio is regulated by the Renewable Portfolio Standard. In 2010 the standard was raised to require 33% of all energy be from "renewable sources" by 2020.

Senate Bill 375 (SB 375): The *Sustainable Communities and Climate Protection Act*, passed in 2008, was drafted and adopted to reduce vehicle emissions by integrating land use with transportation planning.

Sequestration: The uptake and storage of carbon from the atmosphere. Most commonly refers to trees and plants absorbing carbon dioxide through photosynthesis.

Smart Grid: An electricity system that utilizes two-way communication between power suppliers and consumers. This allows for adjustments to a facility's operations to save energy, reduce cost, and increase the reliability of the power supply. A smart grid includes a monitoring system at facilities that can turn off or adjust systems to reduce demand at peak times when power is more expensive. For example, a smart grid could temporarily turn off selected appliances, such as washing machines, or adjust a building temperature by a few degrees to save power.

Smart Meter: An electrical meter that tracks power consumption in real-time, communicates with the local utility company for monitoring and billing purposes, and (if connected to a smart grid) can adjust a building's energy use automatically to reduce demand on the power grid at peak use times.

Solar Panel: A photovoltaic cell that can convert light directly into electricity. Typical solar cells use semiconductors made from silicon.

Solar Thermal: Refers to devices that use the heat from the sun to heat water.

Strategies: Groups of similar emissions reduction measures included in the Climate Action Plan.

Sustainability: In a broad sense, the capacity to endure. In ecology, the word describes how biological systems remain diverse and productive over time. For human society, it is the potential for long-term maintenance of well-being, which in turn depends on the well-being of the natural world and the responsible use of natural resources. Sustainability has multiple facets: environmental, economic, and social.

Therm(s): A unit of measurement of natural gas. It is approximately the energy equivalent of burning 100 cubic feet of natural gas. It is equivalent to 100,000 British thermal units (BTU) or 29.3 kilowatt-hours of electrical energy.

Title 24: California Code of Regulations (CCR), Title 24, is also known as the California Building Standards Code. It is a compilation of building criteria that is updated every three years.

Tonne: see Metric Ton.

United Nations World Commission on Environment and Development (WCED): This group published “Our Common Future,” also known as the Brundtland Report, in 1987. It is most famous for focusing on environmental threats as “elements of a single crisis of the whole.” The Brundtland Report also coined an often-quoted definition of sustainability as: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

U.S. Environmental Protection Agency (EPA): The federal environmental science, research, education, assessment, and regulatory agency. The mission of the Environmental Protection Agency is to protect human health and the environment.

Waste Characterization Study: An analysis of a facility’s waste not being recycled or composted that involves sorting the garbage produced by type (e.g., paper, food waste, plastic) to determine what is being thrown away.

Waste Diversion: A waste reduction strategy focused on the recycling or composting of materials, diverting for use in new products or materials what would otherwise have been sent to a landfill.

Waste Reduction: Techniques such as source reduction, recycling, or composting that reduce waste generation or prevent waste from being created at all.

Waste Stream: The total flow of solid waste from homes, businesses, institutions and manufacturing plants that is recycled, composted, burned, or disposed of in landfills.

Watt: The standard measure of an amount of energy, usually electricity. For example, a 60-watt light bulb requires 60 watts of electricity. Energy use is measured in terms of the number of watts used over a period of time (see kilowatt-hour).

Weather: The specific condition of the atmosphere at a particular place and time. It is measured in terms of such factors as wind, temperature, humidity, atmospheric pressure, cloudiness, and precipitation. In most places, weather changes from hour to hour, day to day, and season to season. Climate is the average of weather over time and space. A simple way of remembering the difference is that climate is what you expect (e.g., cold winters) and weather is what happens (e.g., a blizzard).

Appendix B: Savings Measures Analysis by Cost Effectiveness

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City	Efficacy ($/tonne CO_2e)	Assumptions
GOVERN - 2	**Government Initiatives**	Municipal Facility Efficiency Upgrades: Approve and abide by the Energy Action Plan and complete measures to reach City goals as Phase 1 (2013-2014)	K	51	0.2	$22,501	$0	$0.00	178,586 kWh savings required to reach initial reset goal (additional 15% by 2015) as reported in the Energy Action Plan. (Paid for by Chevron)
GOVERN - 3	**Government Initiatives**	Municipal Facility Efficiency Upgrades: Complete 100% of remaining Energy Action Plan measures…"Phase 3 (2018-2020)"	K	1,186	5.2	$518,293	$0	$0.00	Complete/Implement 100% (4,118,487 kWh savings possible depending on options selected) of Energy Efficiency Savings Measures detailed in the Energy Action Plan. (Paid for by Chevron)
WORK - 8	**Commercial Buildings**	Commercial On-Bill Financing/Repayment: Encourage On-Bill Financing/Repayment through SCE and SCG with green messaging and teamwork in the community	K	4,250	15.3	$1,533,998	$2,000	$0.47	Efficiency upgrades (2,500,000 sq. ft. comm space…30% reduction in elec. 5% reduction in natural gas) savings 11,685,000 kWh/y and 43,750 therms Nat Gas/yr.
WORK - 7	**Commercial Buildings**	Commercial PACE Program: Partner and aggressively promote commercial PACE program to provide commercial property owners —from retail to resorts—with property-secured funding for 100% of the cost of energy efficiency upgrades/renewable energy installations	K	10,319	36.8	$3,677,730	$5,000	$0.48	Efficiency upgrades (5,000,000 sq. ft. comm space…30% reduction in elec. 5% reduction in natural gas) savings of 23,370,000 kWh/yr. and 87,500 therms Nat Gas/yr.; 1000kW PV producing 2,007,500 kWh/yr., $252,945….2000 kW capacity wind producing 3,040,000 kWh/yr., $332,576…90 businesses with solar hot water saving 58,081 kWh and 11,983 therms nat. gas/yr. $24,214
LIVE - 1	**Cross-Cutting Initiatives**	Save a Ton Campaign: Work with CVAG to further develop and locally market the Save a Ton campaign, unlocking energy, dollar, and carbon savings in 30% of the housing stock	A	4,082	9.8	$983,801	$2,000	$0.49	Assume 30% of homes (10,438) and save 10% household electricity (8,499,663 kWh) and save 5% Natural Gas (208,760 therms), cost to city based on 2 events held
LIVE - 9	**Residential Buildings**	On-Bill Finance/Repayment: Partner with SCE and SCG to locally promote on-bill financing/repayment for residential energy efficiency retrofits in 15% of housing stock	K	3,509	8.8	$883,055	$2,000	$0.57	15% of housing stock (5219 homes), 40% kWh savings , 30% therms savings
GOVERN - 1	**Government Initiatives**	Desert Cities Energy Partnership: Continue to actively partner with serving utilities to fully utilize energy efficiency and demand response programs in municipal facilities	A	3,145	13.8	$1,376,705	$2,000	$0.64	DCEP…Data from Energy Leader Partnership annualized data from 2004-2011 …Municipal 72,944 kWh/yr., Community 10,853,293 kWh/yr. Total 10,926,237 kWh
LIVE - 8	**Residential Buildings**	Residential PACE: Continue to partner and aggressively promote Residential PACE Program to reach 15% of homes with property-secured funding for 100% of the cost of energy upgrades and renewable energy systems in eight years	K	5,914	17.1	$1,712,027	$4,000	$0.68	15% of housing stock (5,219 homes), 40% kWh savings , 30% therm savings; 100 homes with 10kw solar PV,50 homes with solar DHW

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RECREATE - 7	**Transportation**	Neighborhood Electric Vehicles: Design and promote Neighborhood Electric Vehicle program to achieve minimum of 200 NEVs for Valley residents and visitors	K	955	1.8	$177,800	$1,000	$1.05	200 NEVs assuming 5000 miles each annually, saving 254 gallons gasoline per vehicle resulting in 50,800 gallons saved annually ($3.50/gal. of gas)
GOVERN - 14	**Transportation**	Electric Vehicle Charging Stations: Seek additional grant funding and private sector partnerships to install 20 more EV charging stations on public and private property similar to Riverside County $10,000 grant for one station	K	3,821	14.2	$1,419,600	$5,000	$1.31	800 Electric Vehicle purchases for a savings of 507 gallons per vehicle/yr. 10,000 VMT/yr. $3.50/gal gas
LIVE - 2	**Renewable Energy**	Solar "Model Citizens": Promote solar photovoltaic systems and solar thermal systems for residential homeowners to develop 100 "model citizen" systems in Palm Springs	K	1,513	8.6	$863,586	$4,000	$2.64	200 homes with 10kW solar PV (5.5 sun hours a day) resulting in 4,015,000 kWh/$831,105 production annually. 200 homes with solar DHW (avg. 50 gals a day usage) resulting in 46,465 kWh/$9,618 and 21,569 therms/$22,863 savings annually
GOVERN - 15	**Transportation**	Transit Oriented Development: Promote transit oriented development to foster development in line with mass transit corridors	K	1,684	2.2	$218,645	$5,000	$2.97	Reduced community wide VMT by 2% (62,470 Gallons x $3.50/gal. of gas)
LIVE - 13	**Water**	Water Conservation Ordinance: Build on and exceed current water conservation programs, including Veolia rebate and Tap It! Partnership programs, by 15% community-wide by 2020	K	1,036	16.7	$1,666,850	$5,000	$4.83	34,794 homes, use of 350 gal/home/day, 15% savings under ordinance, domestic water cost of $0.0025/gallon, avg, .0054 kWh energy use per gallon. 666,740,025 gal saved, 3,600,396 kWh saved
WORK - 11	**Transportation**	Telecommuting: Promote telecommuting and flex-time for local businesses to achieve and track 250 teleworkers in Palm Springs	K	367	1.4	$136,447	$2,000	$5.45	CAPPA Calc for Telecommuting, 500 telecommuting employees, one day a week, 16 miles one-way, 19.7 mpg, $3.50 gal/gas, 38,985 gal gas saved/year
LIVE - 6	**Residential Buildings**	Household Efficiency Audits: Partner with SCE and SCG to provide local promotion for the Home Energy Efficiency Survey to "self audit" homes	K	447	1.8	$175,970	$2,500	$5.59	Assume 1000 homes reached and a 10% reduction per home of 814 kWh and 40 therms resulting in 814,000 kWh and 40,000 therms saved annually
GOVERN - 10	**Renewable Energy**	Solar Ready Ordinance: Develop and implement an ordinance requiring 100% of new homes be solar ready (PV)	K	756	4.4	$436,603	$5,000	$6.61	100 homes with 10kw solar PV (5.5 sun hours a day) resulting in 2,007,500 kWh/$415,553 production annually ,100 homes with solar DHW (avg. 50 gals a day usage) resulting in 23,232 kWh/$4,809 and 10,785 therms/$16,241 savings annually

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WORK - 3	**Commercial Buildings**	Energy-Efficient, Commercial-Sector Lighting: Promote and leverage existing incentives for efficient lighting and educate and locally incent building owners to eliminate any remaining T-12 lamps in commercial buildings	A	704	2.6	$258,930	$5,000	$7.10	1,000,000 sf of facilities retrofitted with efficient lighting, electricity cost of $0.126/kWh, annual lighting usage of 6.85 kWh/sf, 30% savings with retrofit of 2,055,000 kWh/yr.
LIVE - 10	**Solid Waste**	Solid Waste Diversion: Increase solid waste diversion rate by 5% to 80.1% by 2015 potentially through awareness programs, recognition and other financial instruments	A	2,763	1.0	$100,000	$20,000	$7.24	2010 diversion rate of 75.1% and characterization study (2008) from Cal-Recycle with Consultant calculations then entered into the CACP software. Consultant assumption on savings dollars
BUILD - 5	**Commercial Buildings**	Plan Checks and Permitting: Expedite plan checks and reduce permit and plan check fees by 50% for green building projects and remodels	K	138	1.2	$116,981	$1,000	$7.25	1% of housing stock (347 homes), 20% kWh savings (565,124 kWh), 1% of commercial stock (8 bldgs.), 40,700 avg kWh usage, 40% kWh savings (130,240 kWh)
GOVERN - 9	**Renewable Energy**	Public/Private Partnerships: Explore private-public partnerships for renewable energy installations and energy-efficiency upgrades on municipal facilities (performance-based contracts and power purchase agreements).	K	1,376	5.1	$505,890	$10,000	$7.27	2,000 kW of solar PV generating 4,015,000 kWh
BUILD - 4	**Commercial Buildings**	New and Efficient Construction: Promote the Savings by Design Program from SCE for new commercial buildings.	K	136	0.5	$47,215	$1,000	$7.35	Provide information to local builders on how to access and leverage this design assistance. .. 50,000 sf of commercial building per year that average 15.6 kWh/sf and .35 therms/sf to save 40% kwh usage and 30% therm usage
WORK - 4	**Commercial Buildings**	SCE Business Incentives: Promote and leverage existing incentives for efficient lighting and energy efficiency upgrades for small businesses through SCE's Express Solutions Program, for specific industries such as Hospitality, Gov./Institutions, Office, Retail, Small Business, Water Wastewater through SCE's Energy Management Solutions program, and partner with SCE for large businesses through the Continuous Energy Improvement Program (savings from non-PACE-funded projects)	K	267	1.0	$98,154	$2,000	$7.49	Efficiency upgrades to 500,000 sq. ft. of commercial space…20% reduction in electricity resulting in savings of 779,000 kWh/yr. Assume about 50 companies
LIVE - 11	**Solid Waste**	Solid Waste Diversion: Increase solid waste diversion rate by an additional 10% to 90.1% by 2020 potentially through awareness programs, recognition and other financial instruments	K	4,931	2.0	$200,000	$40,000	$8.11	2010 diversion rate of 75.1% and characterization study (2008) from Cal-Recycle with Consultant calculations then entered into the CACP software. Consultant assumption on savings dollars

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RECREATE - 3	**Cross-Cutting Initiatives**	Comprehensive Pool Efficiency: Promote comprehensive pool efficiency including variable speed pool pumps, covers, wind breaks, and solar heating for 1000 pools by utilizing SCE and SCG Company incentive programs	K	493	3.5	$354,384	$4,000	$8.11	Target 1,000 additional pools, 1,712 kWh/yr. savings per pump resulting in 1,712,000 kWh/year by utilizing SCE and SCG incentive programs
MOBILITY - 1	**Transportation**	Electric Vehicles: Work with Electric Automobile Association of Palm Springs to promote the lease and purchase of 1,000 electric vehicles in the community with recognition and preferential parking for participants	K	4,777	17.8	$1,776,649	$40,000	$8.37	1,000 new electric cars, 19.7 mpg vehicle replaced, 10,000 average annual miles per vehicle, $3.50/gal gas, $0.207/kWh saving 507,614 gallons of gas,
LEARN - 1	**Commercial Buildings**	Commercial Sector Green Business: Target and work with minimum of 200 businesses for Green Business Program	K	1,180	3.6	$364,000	$10,000	$8.47	200 businesses targeted, 11,500 kWh and 350 therms saved per business resulting in 2,300,000 kWh and 70,000 therms saved annually
BUILD - 6	**Residential Buildings**	Green Building Program: Adopt the Voluntary Green Building Program to prepare for enhanced Title 24 requirements and green building standards	A	274	1.4	$139,651	$2,500	$9.12	50 new homes at 3000 square feet average
GOVERN - 11	**Renewable Energy**	Roof-Mounted Wind Systems: Create an ordinance to enable residential wind turbines and promote the installation of 1000 roof-mounted wind systems on private property by 2020	K	540	3.1	$314,640	$5,000	$9.26	1000 kW (1MW)of distributed wind installed producing 1,520,000 kWh
LIVE - 5	**Residential Buildings**	Peak Demand Reduction: Partner with SCE to provide local promotion of the residential Summer Discount Program to cut peak demand in 10% of the housing stock	A	204	0.4	$41,742	$2,000	$9.80	Assume 5% of homes (1,740) and save 5% household electricity (407 kWh per home) resulting in 708,180 kWh and savings annually
RECREATE - 8	**Water**	Irrigation System Controls: Promote the installation of irrigation control sensors at parks and golf courses	K	102	1.3	$127,140	$1,000	$9.80	26% savings, 300 acres, 652,000 gallons of water used per acre, $0.0025/gallon, 0.0035 kWh/gallon, $50/acre to install sensor saving 50,856,000 gallons of water, 177,996 kWh
GOVERN - 7	**Government Initiatives**	Retro Commissioning: Abide by the Retro-Commissioning (RCx) policy and guidelines for qualifying municipal buildings	A	196	0.7	$67,685	$2,000	$10.20	2% of Municipal Electricity and Natural Gas 318,697 kWh and 19,525 therms
WORK - 2	**Commercial Buildings**	Peak Demand Reduction: Collaborate with SCE and encourage 100 businesses to enroll in Energy Efficiency and Demand Response programs such as the Summer Discount Program	A	193	1.0	$96,900	$2,000	$10.36	100 business participating, 8000 kWh/yr. reduction 200 therms/yr. reduction. Continued outreach to businesses (large or small) in conjunction with SCE efforts to lessen demand during peak hours

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GOVERN - 4	**Government Initiatives**	Efficient and Green New Construction: Establish policy that 100% of new municipal buildings and major remodels adhere to Voluntary Green Building Program standards and are minimum LEED silver or equivalent	K	182	0.6	$58,290	$2,000	$10.99	25% electricity and natural gas savings, 100,000 sq. ft., $0.126/kWh, $1.06/therm savings 389,000 kWh, 8,750 therms
MOBILITY - 11	**Transportation**	Van Pools: Partner and recognize all Palm Springs major employers with over 50 employees for van pools	K	373	1.4	$138,733	$5,000	$13.40	2,000 employees offered carpool/vanpool, 8% reduction in commute vehicle trips, 9.8 mile avg. one-way length, 19.7 mpg avg fuel economy saving 780,864 mile reduction, 39,638 gallons of gas ($3.50/gal. of gas)
RECREATE - 6	**Transportation**	Visitor Shuttles: Collaborate with local hotels and resorts to support and establish effective point-to-point transportation for visitors, e.g. shuttles to airport, hotels, business district	K	3,496	0.3	$29,019	$50,000	$14.30	292,000 trips avoided…200 users per day for 8 years. 9.4 passengers per vehicle, 2.7 leverage factor, 9.8 miles avg trip length, 19.7 avg passenger fuel economy. ($3.50/gal. of gas)
MOBILITY - 6	**Transportation**	Employee vehicle miles traveled reduction program: Build on existing rideshare and carpool incentive program for municipal employees	K	330	1.2	$122,802	$5,000	$15.15	20% reduction, 360 employees
GOVERN - 5	**Government Initiatives**	Utility Manager Software: Maximize use of the Los Angeles County Energy Enterprise Management Information System (EEMIS) to manage municipal facilities	A	294	1.0	$101,529	$5,000	$17.01	3% of Municipal Electricity and Natural Gas 478,046 kWh and 29,288 therms
WORK - 10	**Transportation**	Car-Pooling and Mass Transit: Promote "Shared Vehicle at Work" programs to increase carpooling and mass transit by 20% with a "guaranteed-ride home"	A	114	0.2	$22,650	$2,000	$17.54	Increase employee use of alternative transportation by 15%, Assumed 200 employees, 32 mile round trip, 6,472 gallons gas saved ($3.50/gal. of gas)
MOBILITY - 2	**Transportation**	Hybrid Vehicles: Promote the purchase of 2,000 hybrid vehicles in the community with recognition and preferential parking for participants	K	5,464	20.3	$2,031,561	$100,000	$18.30	2,000 cars saving 580,446 gallons of gas annually ($3.50/gal. of gas)
LEARN - 5	**Transportation**	Bike Week: Support and expand education and awareness of alternative transportation value through Bike to Work and Bike Month Promotion	A	50	0.2	$18,477	$1,000	$20.00	500 trips (during bike week) switched from car to bicycle, $3.50/gallon of gas, 4 mile length of avoided trip, 19.7 avg fuel economy, resulting in 5,279 gal of gas saved
MOBILITY - 13	**Transportation**	Anti-Idling: Pass ordinance that restricts idling (in specific City zones) of greater than 5 minutes for all commercial vehicles	K	100	0.4	$36,000	$2,000	$20.00	50 trucks reduced...Per vehicle, idles 1 hour every day for 240 days a year, 1 gallon of diesel used per hour of idling, $3/gallon of diesel 240 gallons per vehicle/yr., $720 per vehicle/yr.

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WORK - 6	**Commercial Buildings**	"The Temperature Club:" Promote community partnership through policies to adjust indoor temperatures to save/degree, by way of the "Green Business Partnership"	K	97	0.5	$48,450	$2,000	$20.62	100 business participating, 4000 kWh/yr. reduction 100 therms/yr. reduction.
MOBILITY - 12	**Transportation**	Comprehensive Vehicle Tune-Ups: Introduce and implement "Vehicle Diagnostic Program" to target and incentivize the public to tune and maintain their vehicles on a regular basis	K	235	0.9	$93,240	$5,000	$21.28	Assume 100 tune ups a year from 2 "Tune-Up Drives" saving 10% of the fuel of a 5,000 VMT vehicle getting 15 mpg, 3,330 gallons of gas saved/yr. for 8 years. Total 26,640 gallons saved. ($3.50/gal. of gas)
LIVE - 4	**Residential Buildings**	Energy-Efficient Lighting: Purchase approx. 2,000 compact fluorescent lamps and LEDs for giveaways to demonstrate their value in homes and leverage ten times the number in household and business applications	A	279	2.0	$200,376	$6,000	$21.51	2000 bulbs resulting in 88,000 kWh annual savings. Each bulb costs $1.50 and saves 44 kWh/yr.; program administration assumed at $3,000. Each bulb given away leverages an additional 10 purchased through leveraging effect resulting in 880,000 kWh annual savings for a total of 968,000 kWh saved annually
BUILD - 1	**Commercial Buildings**	Sustainable Parking Lots: Program to reduce the heat island effect through the promotion of parking lot coverings and coatings and semi permeable surfaces for new construction to achieve 20% of existing parking lots, and 80% of new parking lots	K	112	0.6	$58,415	$2,500	$22.32	500,000 sf conditioned space community wide (approx. 25 bldgs.), 15.6 kWh/sf usage, achieve 5% electricity savings with new parking lots, saving 390,000 kWh
MOBILITY - 10	**Transportation**	Bus Route Maximization: Collaborate with SunLine officials to reform routes to promote smaller buses with more routes and frequencies to increase ridership by 50%	K	218	1.1	$108,150	$5,000	$22.89	100 new daily transit passengers, 9.4 passengers per bus, 2.7 leverage factor, 9.8 miles avg. trip length, 19.7 mpg vehicle displaced saving 608,730 annual vehicle mile reduction, 30,900 gallons of gas ($3.50/gal. of gas)
GOVERN - 6	**Government Initiatives**	Benchmarking: Abide by Energy Benchmarking Policy to gauge relative energy use and efficiency of municipal facilities	A	196	0.7	$67,685	$5,000	$25.51	2% of Municipal Electricity and Natural Gas 318,697 kWh and 19,525 therms
WORK - 1	**Commercial Buildings**	Commercial Energy Audits: Work with Desert City Energy Partnership to promote energy audits for 500,000 square feet of commercial buildings and confirm replacement/upgrade schedule	K	365	1.2	$122,829	$12,000	$32.88	500,000 sf community wide (approx. 25 buildings), 15.6 kWh/sf usage .35 therms/sf usage, achieve 10% electricity and natural gas savings post-audit, savings of 780,000 kWh, 17,500 therms

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RECREATE - 9	**Water**	Drought-Tolerant Landscaping: Promote reduced need for golf course irrigation through design and use of drought-tolerant plants	A	26	0.1	$9,437	$1,000	$38.46	3-9 hole, 8-18 hole golf courses in Palm Springs…assume average of 200,000 gal/day…average of 2% energy savings achieved…saving 74,898 kWh/yr. The City of Palm Springs has allocated funds to support this measure ($110,000)
LIVE - 7	**Residential Buildings**	Plan Checking and Permitting: Expedite plan check process and reduce permit fees by 50% for energy-efficiency measures and remodels and renewable energy installations to reduce carbon emissions	K	224	0.1	$8,798	$10,000	$44.64	500 homes...10% savings below avg consumption for total savings of 407,150 kWh and 20,000 therms
RECREATE - 5	**Solid Waste**	Green Conferences: Build on Sustainability Manager's work and continue working with hospitality sector to define and promote "green" conference venues, hotels, etc.	A	88	0.2	$20,000	$4,000	$45.45	**Assume 80 conference days a year**...Avg. per "event day" 3 tons solid waste avoided to landfill through conscientious recycling, reusable dishware, double sided printing, reduced promotional paper materials , 2000 kWh saved through special HVAC and lighting management, travel offsets through carpooling, van pooling, and telecommuting or web based participants, carbon offsets of additional energy needs
MOBILITY - 4	**Transportation**	Eco-Conscious Driving: Promote eco-conscious driving behavior to increase fuel efficiency by 5 - 10% and minimize emissions and maintenance. Aka "hyper-miling."	K	94	0.4	$35,000	$5,000	$53.19	400 participants who travel 10,000 miles per year in a vehicle that averages 19.7 mpg, saves 5% or 25 gallons per year after implementing eco-conscious driving behavior. ($3.50/gal. of gas)
LEARN - 2	**Cross-Cutting Initiatives**	Green Building Lectures and Continuing Education: Provide lectures, seminars and training on green building based on guide and training materials emphasizing desert conditions and opportunities	K	75	0.4	$35,200	$5,000	$66.67	80 new homes added…avg. 3000 sq. ft..... Assume 25% savings…resulting in 148,000 kWh and 4,300 therms saved annually
WORK - 5	**Commercial Buildings**	Integrated Lighting Systems: Promote SCE's Energy Management Solutions' energy-efficient lighting linked to building controls and occupancy sensors in minimum of 1 million square feet of commercial space	K	822	5.0	$496,282	$60,000	$72.99	1,000,000 sf of facilities retrofitted with efficient lighting, electricity cost of $0.126/kWh, annual lighting usage of 6.85 kWh/sf, 35% lighting savings with retrofit of 2,397,500 kWh
LEARN - 3	**Cross-Cutting Initiatives**	Green Citizen Award: Solicit nominations and promote a community Green Citizen (1 each year) to show the value of efficiency and its energy, dollar, and carbon savings	A	25	0.1	$14,442	$2,000	$80.00	Public Relations and Education project stimulating at least 20 untapped homeowners to take significant efficiency action in their homes to save 30% electricity and 5% Nat Gas

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BUILD - 9	**Residential Buildings**	Green Homes Tours and Recognition: Provide green builders and green home owners with recognition at Council; support and administer "Green Homes Tours" annually to showcase six projects each year	K	45	0.5	$47,215	$4,000	$88.89	Provide tours at minimal cost to local homes and businesses…1 tour a year…provides a pipeline of 25 Green homes to programs 40% kwh savings (81,430) 30% therm savings (3,000). Can be included with existing residential tours
BUILD - 7	**Residential Buildings**	Green Building Support Services: Advance the Voluntary Green Building Program to mandatory green building requirement with technical support services	K	548	2.8	$279,303	$50,000	$91.24	100 new homes at 3000 square feet average
WORK - 9	**Solid Waste**	Food Waste Composting at Restaurants: Facilitate and increase restaurant composting program for food waste to reach 50 restaurants that serve more than 100 meals a day	K	41	0.4	$44,552	$5,000	$121.95	Compare to restaurant program Route 111...Assume 300lbs saved/per cap/yr....assume $1.00 savings per cap/yr.
MOBILITY - 8	**Transportation**	Bike Program: Provide bicycles for daily trips using public/private partnership model	A	38	0.1	$6,486	$5,000	$131.58	100 bikes available, avg 2 trips a day per bicycle, 2 mile avg trip length savings 1,853 gallons of gas. ($3.50/gal. of gas)
MOBILITY - 9	**Transportation**	Police Bikes: Promote use of bicycles for police use through training and operations support	A	71	0.7	$68,000	$10,000	$140.85	10 bike officers, 16 mpg per police car, 12,042 miles driven annually, $1,000 annual cost of bike and training, $7,800 cost of vehicle and training saving 7,526 gallons per year, $22,579 fuel cost savings plus maintenance,
RECREATE - 1	**Cross-Cutting Initiatives**	Ball field Lighting Timers: Promote the installation of timers for all ball field or other recreational lighting at schools and city facilities	K	60	0.2	$22,076	$10,000	$166.67	120 high-pressure sodium lamps cut back 2 hrs. every day saving 175,200 kWh/yr.
BUILD - 3	**Commercial Buildings**	Affordable Housing: Promote the construction of energy-efficient affordable housing with private-sector partners	K	126	0.5	$52,740	$25,000	$198.41	100 new housing units, 8,143 kWh and 400 therm typical use annually, 25% savings at 203,575 kWh, 10,000 therms
GOVERN - 8	**Government Initiatives**	Group Purchasing: Promote and participate in group purchasing of energy efficiency goods and services with other CVAG cities/tribes	K	10	0.4	$40,000	$2,000	$200.00	Assume additional measures undertaken from $10,000 of savings to achieve 250,000 kWh savings
MOBILITY - 7	**Transportation**	Bike, Walking, NEV "Parkway:" Support Parkway 1e11 as a Valley amenity and means to alternative forms of transportation and to promote health in Palm Springs	K	25	0.0	$4,620	$5,000	$200.00	500 weekly trips switching from cars to walking/biking, avg distance 2 miles, 19.7 mpg car displaced, saving 1,320 gallons of gas ($3.50/gal. of gas)
LIVE - 3	**Residential Buildings**	Pool Pumps: Promote high-efficiency, variable speed pool pumps to households at community fairs and retail outlets to achieve minimum of 500 units	A	247	1.1	$107,856	$50,000	$202.84	500 pumps 1,712 kWh/yr. savings per pump resulting in 856,000 kWh/year …Cost to city is $50 rebate adder on top of SCE $200 rebate.

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City	Efficacy ($/tonne CO_2e)	Assumptions
GOVERN - 13	**Solid Waste**	Recyclable Take-Out Containers: Promote/mandate take-out alternative containers to eliminate use of polystyrene packaging	A	20	0.0		$5,000	$250.00	100 lbs. of containers per capita
RECREATE - 4	**Solid Waste**	Net Zero Special Events: Build on Sustainability Manager's work and continue working with the hospitality sector encouraging special purpose events to be sustainable with net zero energy and waste requirements	K	6	0.0	$2,000	$2,000	$333.33	**Assume 20 events a year**...Avg. Per event ...1 ton solid waste avoided to landfill through conscientious recycling, reusable dishware, double sided printing, reduced promotional paper materials , 2000 kWh saved through special HVAC and lighting management, travel offsets through carpooling, van pooling, and telecommuting or web based participants, carbon offsets of additional energy needs
RECREATE - 2	**Cross-Cutting Initiatives**	Ecotourism: Form public/private partnership to promote eco-tourism and tours of wind farms, solar arrays, and geothermal systems in the Valley	K	25	2.5	$250,000	$10,000	$400.00	Increased tourism and awareness of Green Building and alternative energy options in the desert climate
LIVE - 12	**Transportation**	Development Planning: Promote pilot program to bring amenities and limited services into communities to shorten commutes and promote walking	K	2	0.0	$924	$1,000	$416.67	100 weekly trips switched from vehicles to walking, $3.50 per gallon of gas, 1 mile trip length avoided, 19.7 mpg avg. passenger fuel economy. 5,200 vehicle mile reduction, 264 gallons of gas
MOBILITY - 3	**Transportation**	Charging Stations: Foster public/private partnerships to promote 5 EV charging stations with public access	A	23	0.1	$8,358	$12,500	$555.56	5 EV charging stations will save 2,388 gallons of gas used for business commuting ($3.50/gal. of gas)
LIVE - 14	**Water**	Gray water-Ready Ordinance: Require all new residential development to be constructed for easy implementation of gray water systems that redirect water from wash basins, showers, and tubs	K	6	0.0	$52	$5,000	$839.35	100 new homes, use of 350 gal/home/day, 30% savings under ordinance, domestic water cost of $0.0025/gallon, avg, .0054 kWh energy use per gallon.
BUILD - 2	**Commercial Buildings**	"Cool Roofs": Promote the installation of reflective roofing on commercial properties in the community with recognition for first ten early adopters	K	15	0.1	$8,714	$15,000	$1,000.00	50,000 sf of roof installed, $0.126/kWh, $1.06/therm, $0.25/sf of incremental cost of Energy Star roofing saving 42,100 kWh
LIVE - 15	**Water**	Drought-Tolerant Landscaping: Continue to promote and augment rebates for individual residences and HOAs for Lawn Buy Back Program and drought-tolerant landscaping	A	43	1.1	$106,519	$55,000	$1,279.07	100 homes, .5 acre yard, 4 gal of gasoline used per lawn annually, 19lbs of VOC produced per mower annually, 652,000 gallons of water used per acre, 0.0035 kWh used per gallon of water ($3.50/gal. of gas)

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City	Efficacy ($/tonne CO_2e)	Assumptions
BUILD - 10	**Water**	Stormwater Capture: Promote storm water capture and retention for exterior landscape use (cisterns, rain barrels) to demonstrate 10 new systems by 2020	K	1	0.0	$2,943	$2,000	$2,000.00	Start free or reduced-cost rain barrel program similar to Santa Monica…offer design, best practices, and building assistance for cistern construction…average savings of 50 gallons per city household/year saving 545,100 gallons/ $2,943 @$0.0054 kWh per gallon
LEARN - 4	**Cross-Cutting Initiatives**	Workforce Development: Promote workforce development in partnership with College of the Desert, UCR, and CSUSB to achieve 1000 "green careers" by 2020	K	4	0.0		$10,000	$2,500.00	Workforce Development and Riverside County Employment Development Agency
BUILD - 8	**Residential Buildings**	Shade Trees: Promote properly sited and selected shade trees in 100% of new construction to reduce heat islands and provide shade to offset air conditioning	K	35	0.1	$12,240	$112,000	$3,200.00	500 trees, $0.126/kWh, 204 kWh saved per mature tree annually, $224 to plant each tree (CAPPA defaults) saves 102,000 kWh
GOVERN - 12	**Solid Waste**	Reusable Shopping Bags: Provide additional support for program to reduce single use plastic bags (BYOB)	A	1	0.0		$5,000	$5,000.00	5 lbs. of bags per capita for a total of 222,760 lbs. of single-use bags per year
MOBILITY - 5	**Transportation**	Biking and Walking: Expand bikeways, trails, and walking paths connecting residential neighborhoods and commerce	K	24	0.0	$4,620	$200,000	$8,333.33	1000 weekly trips switching from cars to walking/biking, avg distance 1 mile, 19.7 mpg car displaced, saving 1,320 gallons of gas ($3.50/gal. of gas)

GRAND TOTAL OF EMISSION REDUCTION MEASURES	**78**	**75,984**	**254**	**$25,360,153**	**$1,091,000**
MEASURES TO ACHIEVE 2020 EMISSIONS REDUCTION TARGET (AB 32)		**4,263**			
BALANCE OF EMISSIONS REDUCTIONS (AFTER AB 32)		**-71,721**			
		Surplus of emissions reduction measures			
BALANCE OF EMISSIONS REDUCTIONS (AFTER AB 32)		**71,220**			
MEASURES TO ACHIEVE KYOTO PROTOCAL EMISSIONS REDUCTION TARGET		**34,513**			
EMISSIONS LEFT (AFTER KYOTO PROTOCOL)		**-36,707**			
		Surplus of emissions reduction measures			

Appendix C: Savings Measures Analysis by Least Cost

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City	Efficacy ($/tonne CO_2e)	kWh Savings
GOVERN - 2	**Government Initiatives**	Municipal Facility Efficiency Upgrades: Approve and abide by the Energy Action Plan and complete measures to reach City goals as Phase 1 (2013-2014)	K	51	0.2	$22,501	$0	$0	178,586
GOVERN - 3	**Government Initiatives**	Municipal Facility Efficiency Upgrades: Complete 100% of remaining Energy Action Plan measures…"Phase 3 (2018-2020)"	K	1,186	5.2	$518,293	$0	$0	4,118,487
BUILD - 4	**Commercial Buildings**	New and Efficient Construction: Promote the Savings by Design Program from SCE for new commercial buildings.	K	136	0.5	$47,215	$1,000	$7	780,000
BUILD - 5	**Commercial Buildings**	Plan Checks and Permitting: Expedite plan checks and reduce permit and plan check fees by 50% for green building projects and remodels	K	138	1.2	$116,981	$1,000	$7	565,124
LEARN - 5	**Transportation**	Bike Week: Support and expand education and awareness of alternative transportation value through Bike to Work and Bike Month Promotion	A	50	0.2	$18,477	$1,000	$20	-
LIVE - 12	**Transportation**	Development Planning: Promote pilot program to bring amenities and limited services into communities to shorten commutes and promote walking	K	2	0.0	$924	$1,000	$417	-
RECREATE - 7	**Transportation**	Neighborhood Electric Vehicles: Design and promote Neighborhood Electric Vehicle program to achieve minimum of 200 NEVs for Valley residents and visitors	K	955	1.8	$177,800	$1,000	$1	-
RECREATE - 8	**Water**	Irrigation System Controls: Promote the installation of irrigation control sensors at parks and golf courses	K	102	1.3	$127,140	$1,000	$10	177,996
RECREATE - 9	**Water**	Drought-Tolerant Landscaping: Promote reduced need for golf course irrigation through design and use of drought-tolerant plants	A	26	0.1	$9,437	$1,000	$38	74,898
WORK - 2	**Commercial Buildings**	Peak Demand Reduction: Collaborate with SCE and encourage 100 businesses to enroll in Energy Efficiency and Demand Response programs such as the Summer Discount Program	A	193	1.0	$96,900	$2,000	$10	800,000

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City	Efficacy ($/tonne CO_2e)	kWh Savings
WORK - 4	**Commercial Buildings**	SCE Business Incentives: Promote and leverage existing incentives for efficient lighting and energy efficiency upgrades for small businesses through SCE's Express Solutions Program, for specific industries such as Hospitality, Gov./Institutions, Office, Retail, Small Business, Water Wastewater through SCE's Energy Management Solutions program, and partner with SCE for large businesses through the Continuous Energy Improvement Program (savings from non-PACE-funded projects)	K	267	1.0	$98,154	$2,000	$7	779,000
WORK - 6	**Commercial Buildings**	"The Temperature Club:" Promote community partnership through policies to adjust indoor temperatures to save/degree, by way of the "Green Business Partnership"	K	97	0.5	$48,450	$2,000	$21	400,000
WORK - 8	**Commercial Buildings**	Commercial On-Bill Financing/Repayment: Encourage On-Bill Financing/Repayment through SCE and SCG with green messaging and teamwork in the community	K	4,250	15.3	$1,533,998	$2,000	$0.47	11,685,000
LEARN - 3	**Cross-Cutting Initiatives**	Green Citizen Award: Solicit nominations and promote a community Green Citizen (1 each year) to show the value of efficiency and its energy, dollar, and carbon savings	A	25	0.1	$14,442	$2,000	$80	48,840
LIVE - 1	**Cross-Cutting Initiatives**	Save a Ton Campaign: Work with CVAG to further develop and locally market the Save a Ton campaign, unlocking energy, dollar, and carbon savings in 30% of the housing stock	A	4,082	9.8	$983,801	$2,000	$0.49	8,499,663
GOVERN - 1	**Government Initiatives**	Desert Cities Energy Partnership: Continue to actively partner with serving utilities to fully utilize energy efficiency and demand response programs in municipal facilities	A	3,145	13.8	$1,376,705	$2,000	$0.64	10,853,293
GOVERN - 4	**Government Initiatives**	Efficient and Green New Construction: Establish policy that 100% of new municipal buildings and major remodels adhere to Voluntary Green Building Program standards and are minimum LEED silver or equivalent	K	182	0.6	$58,290	$2,000	$11	389,000
GOVERN - 7	**Government Initiatives**	Retro Commissioning: Abide by the Retro-Commissioning (RCx) policy and guidelines for qualifying municipal buildings	A	196	0.7	$67,685	$2,000	$10	318,697
GOVERN - 8	**Government Initiatives**	Group Purchasing: Promote and participate in group purchasing of energy efficiency goods and services with other CVAG cities/tribes	K	10	0.4	$40,000	$2,000	$200	250,000

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City	Efficacy ($/tonne CO_2e)	kWh Savings
LIVE - 5	**Residential Buildings**	Peak Demand Reduction: Partner with SCE to provide local promotion of the residential Summer Discount Program to cut peak demand in 10% of the housing stock	A	204	0.4	$41,742	$2,000	$10	708,180
LIVE - 9	**Residential Buildings**	On-Bill Finance/Repayment: Partner with SCE and SCG to locally promote on-bill financing/repayment for residential energy efficiency retrofits in 15% of housing stock	K	3,509	8.8	$883,055	$2,000	$0.57	16,993,064
RECREATE - 4	**Solid Waste**	Net Zero Special Events: Build on Sustainability Manager's work and continue working with the hospitality sector encouraging special purpose events to be sustainable with net zero energy and waste requirements	K	6	0.0	$2,000	$2,000	$333	2,000
MOBILITY - 13	**Transportation**	Anti-Idling: Pass ordinance that restricts idling (in specific City zones) of greater than 5 minutes for all commercial vehicles	K	100	0.4	$36,000	$2,000	$20	-
WORK - 10	**Transportation**	Car-Pooling and Mass Transit: Promote "Shared Vehicle at Work" programs to increase carpooling and mass transit by 20% with a "guaranteed-ride home"	A	114	0.2	$22,650	$2,000	$18	-
WORK - 11	**Transportation**	Telecommuting: Promote telecommuting and flex-time for local businesses to achieve and track 250 teleworkers in Palm Springs	K	367	1.4	$136,447	$2,000	$5	-
BUILD - 10	**Water**	Stormwater Capture: Promote storm water capture and retention for exterior landscape use (cisterns, rain barrels) to demonstrate 10 new systems by 2020	K	1	0.0	$2,943	$2,000	$2,000	2,944
BUILD - 1	**Commercial Buildings**	Sustainable Parking Lots: Program to reduce the heat island effect through the promotion of parking lot coverings and coatings and semi permeable surfaces for new construction to achieve 20% of existing parking lots, and 80% of new parking lots	K	112	0.6	$58,415	$2,500	$22	390,000
BUILD - 6	**Residential Buildings**	Green Building Program: Adopt the Voluntary Green Building Program to prepare for enhanced Title 24 requirements and green building standards	A	274	1.4	$139,651	$2,500	$9	81,400
LIVE - 6	**Residential Buildings**	Household Efficiency Audits: Partner with SCE and SCG to provide local promotion for the Home Energy Efficiency Survey to "self audit" homes	K	447	1.8	$175,970	$2,500	$6	814,000
RECREATE - 3	**Cross-Cutting Initiatives**	Comprehensive Pool Efficiency: Promote comprehensive pool efficiency including variable speed pool pumps, covers, wind breaks, and solar heating for 1000 pools by utilizing SCE and SCG Company incentive programs	K	493	3.5	$354,384	$4,000	$8	1,712,000

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City	Efficacy ($/tonne CO_2e)	kWh Savings
LIVE - 2	**Renewable Energy**	Solar "Model Citizens": Promote solar photovoltaic systems and solar thermal systems for residential homeowners to develop 100 "model citizen" systems in Palm Springs	K	1,513	8.6	$863,586	$4,000	$3	4,061,465
BUILD - 9	**Residential Buildings**	Green Homes Tours and Recognition: Provide green builders and green home owners with recognition at Council; support and administer "Green Homes Tours" annually to showcase six projects each year	K	45	0.5	$47,215	$4,000	$89	81,430
LIVE - 8	**Residential Buildings**	Residential PACE: Continue to partner and aggressively promote Residential PACE Program to reach 15% of homes with property-secured funding for 100% of the cost of energy upgrades and renewable energy systems in eight years	K	5,914	17.1	$1,712,027	$4,000	$0.68	6,528,969
RECREATE - 5	**Solid Waste**	Green Conferences: Build on Sustainability Manager's work and continue working with hospitality sector to define and promote "green" conference venues, hotels, etc.	A	88	0.2	$20,000	$4,000	$45	2,000
WORK - 3	**Commercial Buildings**	Energy-Efficient, Commercial-Sector Lighting: Promote and leverage existing incentives for efficient lighting and educate and locally incent building owners to eliminate any remaining T-12 lamps in commercial buildings	A	704	2.6	$258,930	$5,000	$7	2,055,000
WORK - 7	**Commercial Buildings**	Commercial PACE Program: Partner and aggressively promote commercial PACE program to provide commercial property owners —from retail to resorts—with property-secured funding for 100% of the cost of energy efficiency upgrades/renewable energy installations	K	10,319	36.8	$3,677,730	$5,000	$0.48	28,475,581
LEARN - 2	**Cross-Cutting Initiatives**	Green Building Lectures and Continuing Education: Provide lectures, seminars and training on green building based on guide and training materials emphasizing desert conditions and opportunities	K	75	0.4	$35,200	$5,000	$67	148,000
GOVERN - 5	**Government Initiatives**	Utility Manager Software: Maximize use of the Los Angeles County Energy Enterprise Management Information System (EEMIS) to manage municipal facilities	A	294	1.0	$101,529	$5,000	$17	478,046
GOVERN - 6	**Government Initiatives**	Benchmarking: Abide by Energy Benchmarking Policy to gauge relative energy use and efficiency of municipal facilities	A	196	0.7	$67,685	$5,000	$26	318,697
GOVERN - 10	**Renewable Energy**	Solar Ready Ordinance: Develop and implement an ordinance requiring 100% of new homes be solar ready (PV)	K	756	4.4	$436,603	$5,000	$7	2,030,732

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City	Efficacy ($/tonne CO_2e)	kWh Savings
GOVERN - 11	**Renewable Energy**	Roof-Mounted Wind Systems: Create an ordinance to enable residential wind turbines and promote the installation of 1000 roof-mounted wind systems on private property by 2020	K	540	3.1	$314,640	$5,000	$9	1,520,000
GOVERN - 12	**Solid Waste**	Reusable Shopping Bags: Provide additional support for program to reduce single use plastic bags (BYOB)	A	1	0.0		$5,000	$5,000	-
GOVERN - 13	**Solid Waste**	Recyclable Take-Out Containers: Promote/mandate take-out alternative containers to eliminate use of polystyrene packaging	A	20	0.0		$5,000	$250	-
WORK - 9	**Solid Waste**	Food Waste Composting at Restaurants: Facilitate and increase restaurant composting program for food waste to reach 50 restaurants that serve more than 100 meals a day	K	41	0.4	$44,552	$5,000	$122	-
GOVERN - 14	**Transportation**	Electric Vehicle Charging Stations: Seek additional grant funding and private sector partnerships to install 20 more EV charging stations on public and private property similar to Riverside County $10,000 grant for one station	K	3,821	14.2	$1,419,600	$5,000	$1	-
GOVERN - 15	**Transportation**	Transit Oriented Development: Promote transit oriented development to foster development in line with mass transit corridors	K	1,684	2.2	$218,645	$5,000	$3	-
MOBILITY - 10	**Transportation**	Bus Route Maximization: Collaborate with SunLine officials to reform routes to promote smaller buses with more routes and frequencies to increase ridership by 50%	K	218	1.1	$108,150	$5,000	$23	-
MOBILITY - 11	**Transportation**	Van Pools: Partner and recognize all Palm Springs major employers with over 50 employees for van pools	K	373	1.4	$138,733	$5,000	$13	-
MOBILITY - 12	**Transportation**	Comprehensive Vehicle Tune-Ups: Introduce and implement "Vehicle Diagnostic Program" to target and incentivize the public to tune and maintain their vehicles on a regular basis	K	235	0.9	$93,240	$5,000	$21	-
MOBILITY - 4	**Transportation**	Eco-Conscious Driving: Promote eco-conscious driving behavior to increase fuel efficiency by 5 - 10% and minimize emissions and maintenance. Aka "hyper-miling."	K	94	0.4	$35,000	$5,000	$53	-
MOBILITY - 6	**Transportation**	Employee vehicle miles traveled reduction program: Build on existing rideshare and carpool incentive program for municipal employees	K	330	1.2	$122,802	$5,000	$15	-
MOBILITY - 7	**Transportation**	Bike, Walking, NEV "Parkway:" Support Parkway 1e11 as a Valley amenity and means to alternative forms of transportation and to promote health in Palm Springs	K	25	0.0	$4,620	$5,000	$200	-

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City	Efficacy ($/tonne CO_2e)	kWh Savings
MOBILITY - 8	**Transportation**	Bike Program: Provide bicycles for daily trips using public/private partnership model	A	38	0.1	$6,486	$5,000	$132	-
LIVE - 13	**Water**	Water Conservation Ordinance: Build on and exceed current water conservation programs, including Veolia rebate and Tap It! Partnership programs, by 15% community-wide by 2020	K	1,036	16.7	$1,666,850	$5,000	$5	3,600,396
LIVE - 14	**Water**	Gray water-Ready Ordinance: Require all new residential development to be constructed for easy implementation of gray water systems that redirect water from wash basins, showers, and tubs	K	6	0.0	$52	$5,000	$839	189
LIVE - 4	**Residential Buildings**	Energy-Efficient Lighting: Purchase approx. 2,000 compact fluorescent lamps and LEDs for giveaways to demonstrate their value in homes and leverage ten times the number in household and business applications	A	279	2.0	$200,376	$6,000	$22	968,000
LEARN - 1	**Commercial Buildings**	Commercial Sector Green Business: Target and work with minimum of 200 businesses for Green Business Program	K	1,180	3.6	$364,000	$10,000	$8	2,300,000
LEARN - 4	**Cross-Cutting Initiatives**	Workforce Development: Promote workforce development in partnership with College of the Desert, UCR, and CSUSB to achieve 1000 "green careers" by 2020	K	4	0.0		$10,000	$2,500	-
RECREATE - 1	**Cross-Cutting Initiatives**	Ball field Lighting Timers: Promote the installation of timers for all ball field or other recreational lighting at schools and city facilities	K	60	0.2	$22,076	$10,000	$167	175,200
RECREATE - 2	**Cross-Cutting Initiatives**	Ecotourism: Form public/private partnership to promote eco-tourism and tours of wind farms, solar arrays, and geothermal systems in the Valley	K	25	2.5	$250,000	$10,000	$400	-
GOVERN - 9	**Renewable Energy**	Public/Private Partnerships: Explore private-public partnerships for renewable energy installations and energy-efficiency upgrades on municipal facilities (performance-based contracts and power purchase agreements).	K	1,376	5.1	$505,890	$10,000	$7	4,015,000
LIVE - 7	**Residential Buildings**	Plan Checking and Permitting: Expedite plan check process and reduce permit fees by 50% for energy-efficiency measures and remodels and renewable energy installations to reduce carbon emissions	K	224	0.1	$8,798	$10,000	$45	407,150
MOBILITY - 9	**Transportation**	Police Bikes: Promote use of bicycles for police use through training and operations support	A	71	0.7	$68,000	$10,000	$141	-
WORK - 1	**Commercial Buildings**	Commercial Energy Audits: Work with Desert City Energy Partnership to promote energy audits for 500,000 square feet of commercial buildings and confirm replacement/upgrade schedule	K	365	1.2	$122,829	$12,000	$33	7,800,000

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City	Efficacy ($/tonne CO_2e)	kWh Savings
MOBILITY - 3	**Transportation**	Charging Stations: Foster public/private partnerships to promote 5 EV charging stations with public access	A	23	0.1	$8,358	$12,500	$556	-
BUILD - 2	**Commercial Buildings**	"Cool Roofs": Promote the installation of reflective roofing on commercial properties in the community with recognition for first ten early adopters	K	15	0.1	$8,714	$15,000	$1,000	42,100
LIVE - 10	**Solid Waste**	Solid Waste Diversion: Increase solid waste diversion rate by 5% to 80.1% by 2015 potentially through awareness programs, recognition and other financial instruments	A	2,763	1.0	$100,000	$20,000	$7	-
BUILD - 3	**Commercial Buildings**	Affordable Housing: Promote the construction of energy-efficient affordable housing with private-sector partners	K	126	0.5	$52,740	$25,000	$198	203,575
LIVE - 11	**Solid Waste**	Solid Waste Diversion: Increase solid waste diversion rate by an additional 10% to 90.1% by 2020 potentially through awareness programs, recognition and other financial instruments	K	4,931	2.0	$200,000	$40,000	$8	-
MOBILITY - 1	**Transportation**	Electric Vehicles: Work with Electric Automobile Association of Palm Springs to promote the lease and purchase of 1,000 electric vehicles in the community with recognition and preferential parking for participants	K	4,777	17.8	$1,776,649	$40,000	$8	-
BUILD - 7	**Residential Buildings**	Green Building Support Services: Advance the Voluntary Green Building Program to mandatory green building requirement with technical support services	K	548	2.8	$279,303	$50,000	$91	-
LIVE - 3	**Residential Buildings**	Pool Pumps: Promote high-efficiency, variable speed pool pumps to households at community fairs and retail outlets to achieve minimum of 500 units	A	247	1.1	$107,856	$50,000	$203	856,000
RECREATE - 6	**Transportation**	Visitor Shuttles: Collaborate with local hotels and resorts to support and establish effective point-to-point transportation for visitors, e.g. shuttles to airport, hotels, business district	K	3,496	0.3	$29,019	$50,000	$14	-
LIVE - 15	**Water**	Drought-Tolerant Landscaping: Continue to promote and augment rebates for individual residences and HOAs for Lawn Buy Back Program and drought-tolerant landscaping	A	43	1.1	$106,519	$55,000	$1,279	-
WORK - 5	**Commercial Buildings**	Integrated Lighting Systems: Promote SCE's Energy Management Solutions' energy-efficient lighting linked to building controls and occupancy sensors in minimum of 1 million square feet of commercial space	K	822	5.0	$496,282	$60,000	$73	2,397,500

Sphere	GHG Sector Focus Area Linkage	Measure	AB 32/Kyoto	Annual Savings (Tonnes CO_2e)	Job Creation Estimate	Annual Savings	Estimated Implementation Cost to City	Efficacy ($/tonne CO_2e)	kWh Savings
MOBILITY - 2	**Transportation**	Hybrid Vehicles: Promote the purchase of 2,000 hybrid vehicles in the community with recognition and preferential parking for participants	K	5,464	20.3	$2,031,561	$100,000	$18	-
BUILD - 8	**Residential Buildings**	Shade Trees: Promote properly sited and selected shade trees in 100% of new construction to reduce heat islands and provide shade to offset air conditioning	K	35	0.1	$12,240	$112,000	$3,200	102,000
MOBILITY - 5	**Transportation**	Biking and Walking: Expand bikeways, trails, and walking paths connecting residential neighborhoods and commerce	K	24	0.0	$4,620	$200,000	$8,333	-
		GRAND TOTAL OF EMISSION REDUCTION MEASURES	**78**	**75,984**	**254**	**$25,360,153**	**$1,091,000**		**129,189,202**
		MEASURES TO ACHIEVE 2020 EMISSIONS REDUCTION TARGET (AB 32)		**4,263**					
		BALANCE OF EMISSIONS REDUCTIONS (AFTER AB 32)		**-71,721**					
				Surplus of emissions reduction measures					
		BALANCE OF EMISSIONS REDUCTIONS (AFTER AB 32)		**71,220**					
		MEASURES TO ACHIEVE KYOTO PROTOCAL EMISSIONS REDUCTION TARGET		**34,513**					
		EMISSIONS LEFT (AFTER KYOTO PROTOCOL)		**-36,707**					
				Surplus of emissions reduction measures					

Appendix D: City of Palm Springs 2013 Greenhouse Gas Inventory

Appendix E: City of Palm Springs 2013 Energy Action Plan

Climate Change + Resilience

INTRODUCTION

There is a direct, proven relationship between climate change, sustainable development, and health. A sustainable community acknowledges climate change and aims to reduce its negative impacts. It is also resource efficient, by implementing energy and resource conservation measures, encouraging alternative modes of transit, employing green building standards, and using renewable energy to reduce greenhouse gas emissions. A healthy community pursues greenhouse gas reduction measures that improve health conditions, address health inequalities, and prepare for the potential impacts of climate change.

As shown by the City's Climate Action Plan, Palm Springs is committed to addressing climate change at the local level. Looking forward, the City will continue to take advantage of common-sense approaches as well as cutting-edge policies to reduce energy use and waste, create local jobs, and improve air quality while preserving the local landscape. This commitment is embodied in the City's goal for carbon neutrality and the steps outlined in the Sustainability Plan. By modeling these kinds of positive changes, the City will influence others to make the kinds of changes necessary to reduce greenhouse gases and prepare for the potential impacts of climate change.

9.7

tonnes of GHG emissions per capita in 2010 (State of California: 12 tonnes)
(Source: Climate Action Plan, 2010)

431,594

tonnes CO_2e emissions released communitywide in 2010
(Source: Climate Action Plan, 2010)

250

jobs will be generated from Climate Action Plan Measures
(Source: Climate Action Plan, 2010)

RELATIONSHIP TO OTHER PLANS

Emission Reduction Targets

- 7% below 1990 levels by 2012 (U.S. Conference of Mayor's Climate Protection Agreement)
- Reduce emissions to 1990 levels by the year 2020 (State AB 32 Voluntary Target)

What the General Plan Says

Recognizes that growth and economic opportunity cannot be conducted at the "expense of environmental protection and enhancement." The General Plan includes goals, policies and actions that establish the City as a leader in energy efficiency and green buildings, reduce dependence on the single passenger vehicles, and better connect the City's neighborhoods with multimodal transportation.

What the Climate Action Plan says

Provides a framework for the development and implementation of policies and programs that will reduce the City's emissions and outlines the specific actions necessary for the City to reach greenhouse gas reduction targets.

What the Energy Action Plan Says

Identifies actions that are essential to meet the City's future energy needs, while detailing specific actions to reduce energy use and greenhouse gas emissions.

VISION

Palm Springs is resilient and carbon neutral.

CITY ACCOMPLISHMENTS

1. Adopted the City's Climate Action Plan and Greenhouse Gas Inventory in 2013.
2. Adopted California's AB 32-mandated target goal to reduce emissions to 1990 levels by 2020.
3. Between 2008 and 2010, municipal greenhouse gas emissions fell from 31,227 tonnes CO_2e to 29,232 tonnes CO_2e.

GOAL PROGRESS: EARLY MODERATE ADVANCED ENGAGEMENT OPPORTUNITY

WHAT CAN YOU DO?

- Use the CoolClimate Carbon Calculator to motivate your household to take climate action.
- Start a program in your office, school, or at home to reduce greenhouse gas emissions.
- Urge policy makers to support national and international efforts to reduce global climate change.

climate change + public health

Climate change presents a significant risk to community health – yet the solutions provide an opportunity for many benefits. More extreme weather events, worsened air quality, and increased transmission of infectious disease will almost certainly negatively affect human health, health behaviors, and the socio-economic factors that influence health outcomes. Some existing health threats may intensify, while new health threats may emerge. The impacts of climate change will not affect everyone equally. The elderly, infants and children, minority communities, and people living in poverty, may be disproportionately impacted by climate change. Fortunately, many of the actions that address climate change also improve the health and wellbeing of vulnerable communities.

26%
of the population are age 65 and over
(Source:U.S. Census, 2013)

34%
of children under 18 years of age are in poverty
(Source:U.S. Census, 2013)

20%
of the population have no health insurance coverag e
(Source: U.S. Census, 2013)

13%
of adults have been diagnosed with asthma
(Source: California Health Interview Survey 2011-2012)

Health Co-benefits

Climate change will have significant health impacts and it is important that we are prepared to mitigate and adapt to our changing climate. Many climate change efforts will bring multiple health co-benefits to Palm Springs residents. For example, reducing vehicle miles traveled by increasing safe and accessible infrastructure for walking and bicycling can increase physical activity, reduce air pollution, and lower collisions. These impacts can reduce chronic disease, lower obesity levels, reduce respiratory diseases, and improve mental health.

Promoting local agriculture and food systems can increase access to healthy, fresh foods and improve nutritional quality, reduce upstream energy use, and increase local social cohesion. Urban greening is another strategy that helps reduce energy use, temperature and urban heat island health effect, air pollution, noise, and enhance safety. Likewise having access to urban green space can improve physical and health.

Climate actions to prepare for and reduce exposure to climate changes can also have positive health benefits. Actions focusing on the most burdened and vulnerable communities can help alleviate existing health and social inequities. Also by strengthening local capacity to respond to natural hazards when they occur, the City can reduce the number and severity of injuries and illnesses when they do happen.

Finally, climate actions can indirectly improve health through economic development and improved quality of life. Actions that reduce residential building energy use can reduce household energy costs while at the same time creating local green jobs with living wages. Better employment and housing can positively affect health and improve opportunities and wellbeing.

WHAT IS *climate change?*

Although climate change and global warming are often used interchangeably, warmer temperatures are only one component of climate change. Climate is an average of weather over time, and weather includes temperature, rainfall, winds, flooding, heat waves, and other seasonal patterns. A simple way to remember the difference between weather and climate is: weather affects whether you bring an umbrella today, and climate influences whether you own an umbrella.

Climate change describes the long-term shift in global and regional weather patterns. This includes average annual temperatures and the timing and amount of local precipitation and the frequency and intensity of extreme weather events. Climate change may also result in social, economic, and environmental consequences for residents and businesses in Palm Springs, including the following:

Public Health + Equity

- Heat-related illness and death
- Air quality-related respiratory illnesses
- Impacts to vulnerable populations
- Increased emergency responses needs and costs

Water Resources

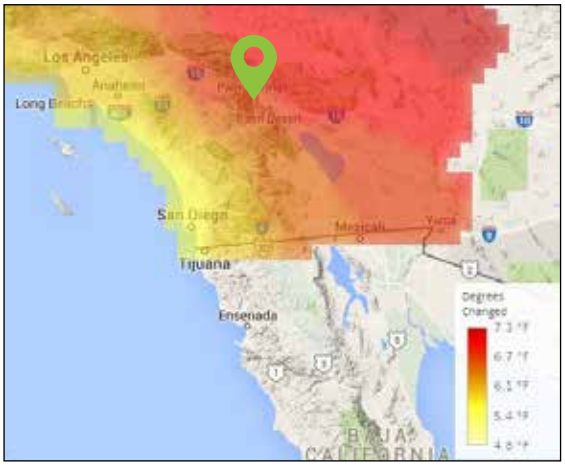
- Inadequate water supply
- Reduction in hydropower production and higher energy costs
- Worsening water quality
- Localized flooding of roads, homes, and businesses

Agriculture + Natural Systems

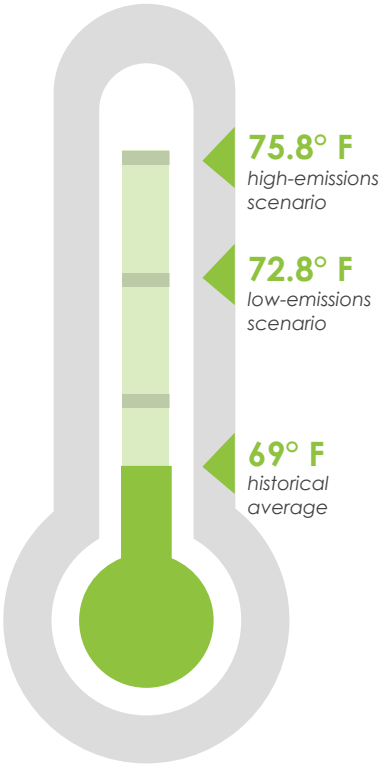
- Changes to the quality and quantity of agricultural production
- Food security for vulnerable populations
- Habitat loss and shifting species range
- Threats to agriculture and natural systems from invasive species, pests, and pathogens

WHAT IS *resiliency?*

Resilient communities ensure that all residents are prepared and ready to withstand social or environmental challenges. As climate change impacts become more frequent and significant, a greater emphasis will need to be placed on every day quality-of-life improvements, such as local food production, access to safer housing, medical care, quality education, and local jobs. In turn, these improvements will enhance community disaster preparedness and make Palm Springs less susceptible to a changing climate.



Projected difference in temperature between a baseline time period (1961-1990) and an end of century period (2070-2090).



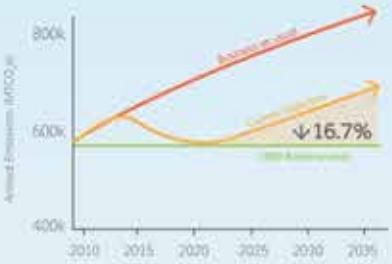
Source: http://cal-adapt.org/

City of Palm Springs

GREENHOUSE GAS EMISSIONS REPORT CARD

The City of Palm Springs is working hard to reduce greenhouse gas (GHG) emissions at the municipal and community level. Popular city-led programs and partnerships provide incentives for residents and businesses to take action. Learn what you can do to reduce harmful GHGs in our community today!

Help us meet our 2035 reduction goal! We need to reduce emissions by 16.7%



MAJOR CONTRIBUTORS OF GREENHOUSE GASES IN PALM SPRINGS

70% Emissions (Tonnes CO_2e)

20% Emissions (Tonnes CO_2e)

3.2%

2.5%

You can save a TON

12.2 tons of greenhouse gas emissions are created annually by the average Palm Springs resident. Cutting your emissions will save you money and increase the health of our community.

SIMPLE SAVERS	MY SAVINGS
☐ Install simple water savers (shower heads and aerators)	= 180 lbs.
☐ Unplug energy "vampire" appliances (e.g., phones and clocks)	= 600 lbs.
☐ Switch to laptop computer and turn it off at night	= 1,400 lbs.
FREE SAVERS	**MY SAVINGS**
☐ Wash clothes with cold water	= 330 lbs.
☐ Use "efficiency settings" on all appliances	= 770 lbs.
☐ Air dry clothes	= 780 lbs.
BIGGEST SAVERS	**MY SAVINGS**
☐ Upgrade to new refrigerator	= 400 lbs.
☐ Upgrade A/C and water heater	= 1,700 lbs.
☐ Seal and insulate your home	= 3,000 lbs.

Energy

PROBLEM: Electricity and natural gas production are energy intensive top contributors to GHG emissions into our atmosphere.

1 **SOLUTION:** The City is rapidly increasing its share of renewable energy infrastructure by investing in solar projects.

8 new solar projects

2 **SOLUTION:** The City and SoCal Gas' rebate programs reimburse the cost of energy-conserving appliances. Conserve energy and water by switching to Energy Star™ appliances.

86 thousand rebates since 2010

Transportation

PROBLEM: Motor vehicle use produces 20% of Palm Spring's annual GHG emissions.

1 **SOLUTION:** The City is encouraging bicycling for transportation by increasing the bike parking supply at popular destinations.

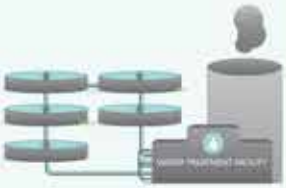
+100 bike racks

2 **SOLUTION:** The City is promoting the use of electric vehicles and won a grant to install EV stations throughout the city at no cost to taxpayers.

43 city-owned EV charging stations

Water Treatment

PROBLEM: Wastewater treatment produces nitrous oxide, a GHG that is 300 times stronger than CO_2.



1 **SOLUTION:** The City's low-flow toilet rebate program gives residents and businesses $100 toward the purchase and installation of a low-flow toilet.

+77 million gallons saved

2 **SOLUTION:** The City's lawn buyback program offers a 50% match of up to $2,500 to property owners that convert to a natural, low water use landscape. Since 2010, over 600,000 sq. ft. of lawn have been converted.

+30 million gallons saved

Solid Waste

PROBLEM: Transportation and disposal of solid waste produces GHGs. Landfills also produce CH_4 and N_2O when waste is disposed.

1 **SOLUTION:** The City has a goal to divert 100% of all waste via recycling and reuse of existing materials.

20 thousand tons of recyclables since 2010

2 **SOLUTION:** The City hosts 20+ sustainability events per year to help residents "choose to reuse". Single-use plastic bags were banned in 2014.

20 million bags potentially diverted from the waste stream

For more information visit www.yoursustainablecity.com

VISION

Palm Springs is resilient and carbon neutral.

Monitor and report greenhouse gas emissions.

1. Continue to inventory and report greenhouse gas emissions so that reductions can be tracked in a transparent, consistent, and accurate manner.
2. Use an emissions inventory and a monitoring tool to identify and prioritize effective programs, and to modify programs to increase greenhouse gas reduction effectiveness.

Develop strategies to reduce community-wide contributions to GHG emissions to 1990 levels by 2020 and 80% below 1990 by 2050. Achieve carbon neutrality for municipal emissions by 2030.

1. Implement energy, water, transportation, and other actions in the City's Climate Action Plan to reduce greenhouse gas emissions.
2. Establish greenhouse gas criteria to evaluate City policies, programs, and development applications.
3. Develop annual department-wide work plans that outline specific greenhouse gas reduction efforts for municipal operations.
4. Convene a working group, and/or collaborate with a regional university, to outline different policies approaches to achieve the deep and transformative actions necessary to achieve carbon neutrality.
5. Participate in a regional carbon offset program, carbon trading, or "cap and trade" system to capture funding for local/regional actions to reduce contributions to GHGs.

Improve community resiliency to the potential impacts of climate change.

1. Assess the potential impacts of climate change on people, infrastructure, natural systems, and public spaces in the City.
2. Partner with State, federal, regional, and county agencies to develop short-term actions that improve community resilience.
3. Prioritize greenhouse gas reduction measures with co-benefits that make the community more resilient to climate change.

GOAL PROGRESS: EARLY MODERATE ADVANCED ENGAGEMENT OPPORTUNITY NEXT STEP

City of Palm Springs

Office of Sustainability

TO: Sustainability Commission

FROM: Patrick Tallarico, Manager

SUBJECT: EV Charging Station Expansion Update

DATE: October 10, 2019

For the past several months, Sustainability Office staff and Engineering staff have been meeting with SCE and other City offices to plan out the expansion of our EV charging network. This process has been more complicated than first anticipated given that many of the locations we had identified do not have sufficient electrical infrastructure. We have evaluated several sites throughout the city and have started to narrow those sites based on feedback from SCE about electrical capabilities.

As you may recall, the City intends to not just add more charging stations. Rather, we would like to strategically transition our fleet of charging stations to fee-based stations that will also be maintained by an external provider. Our hope is that these new stations will provide sufficient revenue to cover the cost of maintenance as well and support ongoing efforts to advertise the program and support future expansion efforts.

The attached table provides information on the locations that are being considered for expansion, whether there are existing charging stations at these locations, and what the new capacity will be at each location. The table also provides a rough estimate of costs for installation, including infrastructure.

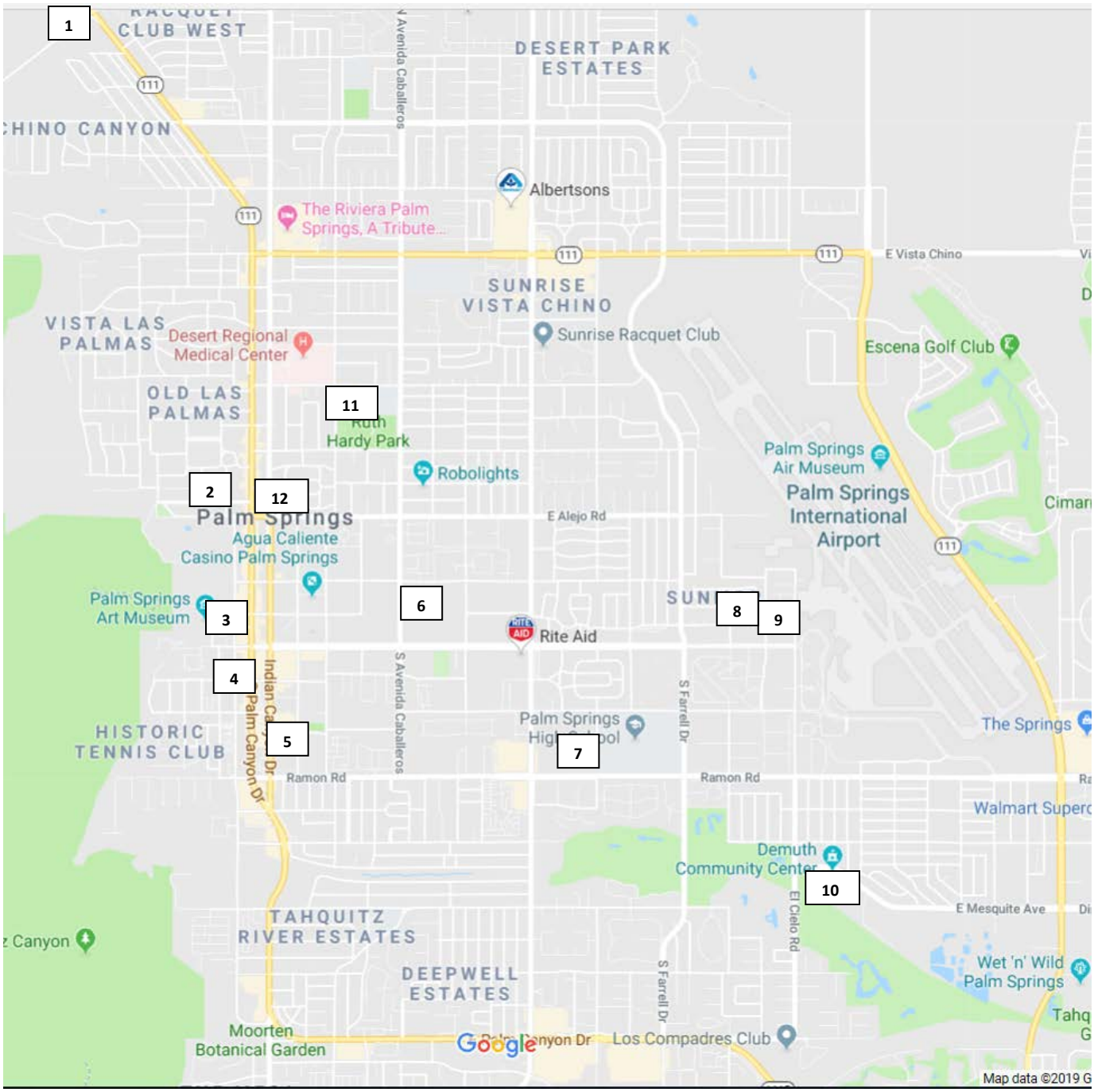
We plan to solicit an RFP to secure charging stations and related services in the next month. We will share the results with the Commission. We also plan to solicit input from those responding to the RFP about additional locations that we should consider.

The Sustainability Office is interested in getting Commission feedback on the following:

1) Confirmation that the Commission continues to support the proposed expansion approach.
2) Any questions or concerns you may have about the proposed locations.

Attachment:

- Map and list of charging station locations targeted for exapansion


1
CLUB WEST
DESERT PARK
ESTATES
CHINO CANYON
Albertsons
The Riviera Palm
Springs, A Tribute...
E Vista Chino
SUNRISE
VISTA CHINO
Sunrise Racquet Club
VISTA LAS
PALMAS
Desert Regional
Medical Center
Escena Golf Club
OLD LAS
PALMAS
11
Hardy Park
Robolights
Palm Springs
Air Museum
2
12
Palm Springs
Agua Caliente
Casino Palm Springs
E Alejo Rd
Palm Springs
International
Airport
Palm Springs
Art Museum
3
6
8
9
Rite Aid
4
S Avenida Caballeros
S Farrell Dr
Palm Canyon Dr
HISTORIC
TENNIS CLUB
5
Palm Springs
7
The Springs
Ramon Rd
Walmart Superc
Demuth
Community Center
10
E Mesquite Ave
TAHQUITZ
RIVER ESTATES
El Cielo Rd
DEEPWELL
ESTATES
Wet 'n' Wild
Palm Springs
Moorten
Botanical Garden
Los Compadres Club
Map data ©2019 G

Location			Number of PS Existing Ports	Total Number of New Ports (Including Replacements)	Estimated Construction Costs	Total Estimated Equipment Cost	Notes
1	Tramview lot	2901 N Palm Canyon Drive	2	4	$ 10,000	$ 5,000	There is also a DC Fast Charger operated by EVGo.
2	Church Lot	North of Intersection of Belardo and Alejo	0	4	$ 25,000	$ 5,000	There is no infrastructure in place currently in the lot.
3	New Downtown Parking Garage	Near Intersection of Museum Drive and Tahquitz Cyn	0	10	$ 35,000	$ 12,500	There are 24 Tesla ports planned for this site already. They have secured all available power, so a new line is needed.
4	Parking lot Behind Village Green	236 S Belardo Road Parking	2	4	$ 10,000	$ 5,000	
5	Baristo Parking	235 S Indian Canyon Drive	4	6	$ 5,000	$ 9,700	
6	Convention Center Lot	277 N Avenida Caballeros	4	6	$ 15,000	$ 8,600	
7	Library/ Pavillion Lot	300 S Sunrise Way	1	1	NA	NA	No infrastructure near pavilion. Could do Library later after new plans are finalized.
8	City Yard	459 N Civic Drive			NA	NA	Not doing anything here at this time.
9	City Hall	3200 E Tahquitz Canyon Way	2	6	$ 20,000	$ 40,000	Includes two DC fast charger ports.
10	Demuth Park	3601 E Mesquite Ave	0	4	$ 10,000	$ 1,000	Will reuse old chargers removed from other locations.
11	Ruth Hardy Park	700 E Tamarisk Road	0	4	$ 30,000	$ 1,000	Will reuse old chargers removed from other locations.
12	Francis Stevens Park	500 N Palm Canyon Drive	0	4	$ 20,000	$ 5,000	We were looking at this as a potential alternative to the Church lot
					$ 180,000	**$ 92,800**	

In addition to these locations that we are considering for expansion, we will also retain the following chargers, and they will remain free of charge. We may be able to reuse some of the older chargers at some of these locations to expand capacity.

Location	Ports
Rabobank Building	2
James O Jesse	4
Desert Aids Project	2
Cultural Center	2
Accelerator Park	1
Airport	7
EVGo at Visitor Center	2

CITY OF PALM SPRINGS OFFICE OF SUSTAINABILITY Healthy Planet, Healthy You.	**COMMITTEE REPORT**
PRESENTED FOR COMMISSION MEETING DATE: 10/15/19	**SUBMITTED BY: David Freedman**
COMMITTEE NAME: Standing Committee on Solar and Green Building	**SUBMITTED DATE: 10/08/19**
COMMITTEE MEETING DATE: 10/02/19	**NEXT COMMITTEE MEETING DATE: 11/05/19, 10 am**

Committee Meeting Goals:

- Planning for Energy Code Ace training session
- Solar zoning ordinance revisions
- Home energy audit program
- Solar policy for commercial buildings
- EV charger update and possible inclusion of EV charger standards in City parking regulations
- Relationship with HSPB
- Potential topics for ONE-PS Sustainability Brown Bag

Summary:

Program Coordinator DeGarmo reported at the beginning of the meeting that Commissioner Goins had advised that he was stepping down from the Committee because of his work commitments. The current Committee members are Commissioners Flanagan and Freedman.

CVAG Director of Environmental Resources Katie Barrows joined the meeting by phone for a discussion with Committee members and staff on the 2019 Energy Code training session, which will be led by Energy Code Ace and take place the morning of November 6 at UCR Palm Desert. The flyer has been finalized and registrations have started coming in. DVBA has informed its members of the event. Manager Tallarico will have the flyer posted in the lobby of the City Hall building / planning wing, and Ms. Barrows will send the flyer to the other Coachella Valley cities for them to do the same. The flyer will also be posted on the City and CVAG websites. Manager Tallarico will also coordinate with staff to have the City issue a press release about the training session. Program Coordinator DeGarmo will follow up with Ms. Barrows on coffee service and other logistics for the training session.

Following comments received at the September 17 Commission meeting on the draft Solar Zoning Ordinance, Manager Tallarico and Commissioner Freedman met with Planning Services staff to discuss the draft. Language based on the draft ordinance approved by the commission at its March meeting was added that clearly gives parameters for assessing the effectiveness of solar collectors. Language that gives the Planning Services Director discretion to approve solar energy systems not conforming to the roof profile was maintained. The revised ordinance will be presented to the Planning Commission for approval at its October 10 meeting. Assuming Planning Commission approval, the ordinance will be presented to City Council at its November 6 meeting, in conjunction with a comprehensive update adopting the 2019 state Building Standards Codes, effective January 1, 2020. The code package includes the 2019 Energy Code, which, among other things, will require solar energy systems on all new residential development three stories and under.

Commissioner Freedman summarized the research he conducted over the summer on a home energy label program. There are three main audit or labeling systems, as summarized in the attached chart. Certain cities require a label at the time of listing or sale of a house but obtaining a home energy score would also be useful to homeowners considering an energy efficiency upgrade. Committee members discussed the merits of a voluntary program versus a mandatory one and agreed voluntary made more sense. Commissioner Flanagan expressed concerns regarding City staffing required to administer the incentives and questioned the efficacy of a program with such a small participant population. Following further discussion, Committee members agreed to ask the full Commission at its October 15 meeting to authorize a $10,000 pilot program, which would provide up to 100 homeowners a rebate of $100 each upon submission of a completed energy report. The pilot program would be coordinated with local realtors so that the score of a home up for sale could be included in its MLS listing.

Commissioner Freedman reported that many California cities recently adopted reach code ordinances that go beyond the 2019 Energy Code standards effective January 1, 2020. The ordinances generally require newly constructed buildings to be all electric or have higher energy efficiency if also including gas, require newly constructed buildings to install solar panels sized to offset a certain percentage of the building's total estimated electrical usage, and require buildings to install electronic vehicle (EV) charging station infrastructure. San Francisco recently adopted an ordinance requiring commercial buildings to provide all on-site electricity demands from 100% greenhouse gas-free or renewable sources. The renewable sources can be electricity qualifying for the California Renewable Portfolio Standard (e.g., solar and wind), hydropower, or 100% greenhouse gas-free or renewable power obtained from PG&E or the Community Choice Aggregation provider for San Francisco. Commissioner Freedman noted that all electricity users in Palm Springs will automatically be enrolled in the 100% greenhouse gas-free energy product from Desert Community Energy (DCE) when it launches in December 2020, and that that the objective of having commercial buildings offset their electrical usage with solar panels could be achieved without additional upfront cost by requiring them to remain with DCE's 100% greenhouse gas-free energy product. Committee members and Manager Tallarico agreed to pursue this approach instead of a solar mandate for commercial buildings. Commissioner Freedman will draft a short briefing paper for Council member Kors, who serves as Council liaison to the Commission and had asked the Commission to look into a solar requirement for commercial buildings.

As noted above, certain cities are adopting reach codes requiring buildings to install EV charging station infrastructure. Commissioner Freedman mentioned that the California Green Building Standards Code (CalGreen) that will also enter effect January 1, 2020 contains requirements for EV infrastructure for new commercial and non-commercial buildings. Committee members and Manager Tallarico agreed that the City should rely on the CalGreen standards and concentrate resources on the City's program to install additional EV chargers throughout the City. Manager Tallarico recently met with SCE to discuss the necessary wiring. The cost to the City will be approximately $200,000, $80,000 of which will be covered by grants. A general fund appropriation of $120,000 approved by City Council will be necessary to complete the project.

Commissioner Freedman reported that Historic Site Preservation Board (HSPB) Chair Dick Burkett had asked him about the HSPB working together with the Commission to provide sustainability information for historic buildings. Under the City's Historic Preservation Ordinance adopted earlier this year, the City's Historic Preservation Officer (currently Associate Planner Ken Lyon) must review applications to install solar and wind energy systems on historic properties. Possible areas of cooperation between HSPB and the Commission include a sustainability brochure for historic properties and a presentation at HSPB's annual symposium in the Spring of 2020. Manager Tallarico will follow up with Mr. Lyon on these matters.

Manager Tallarico noted that the Office of Sustainability will be leading the ONE-PS Brown Bag lunch on October 17, and each Standing Committee is being asked about topics in its area to be presented. The Solar / Green Building Committee topic will be the home energy labeling program discussed above.

Recommendation/Request:

Continuing working with stakeholders on 2019 Energy Code issues as it moves towards effectiveness.

ACTION ITEMS REQUEST TO COMMISSION	Approve funds for the home energy label rebate pilot program noted above.
ACTION ITEMS REQUEST TO OFFICE OF SUSTAINABILITY	Work with Planning Services Department staff on draft Solar Zoning Ordinance. Work with CVAG on launch of DCE in 2020. Implement home energy efficiency label rebate pilot program if approved by the Commission.
POTENTIAL FISCAL IMPACT/REQUEST IF ANY:	An FY 2019-20 allocation of $10,000 is requested for the home energy label rebate pilot program. It is currently expected that CVAG will cover the costs of the Energy Code training program.

Home Energy Label Comparison Chart

Label Name	Home Energy Score	HERS II Rating	Home Energy Report
Certifying Entity	Department of Energy	CalCERTS / CHEERS	InterNACHI
Currently available in Coachella Valley	Pending	Yes	Yes
Includes rating	Yes	Yes	No
Rating linked to house sale / listing	Yes	No	No
Rating system	1-10 (higher is better)	0-250 (lower is better)	None
Diagnostic testing	Blower door optional; cannot enter duct blaster measurement into Home Energy Score	Blower door, duct blaster	None
Number of data inputs	50+	50+	About 40
Field work + data input time	1.25 hours (less if done as part of a general home inspection)	4 – 8 hours	10 minutes, if done as part of a general home inspection; less than one hour, if done as a stand-alone inspection service
Estimated cost	$100 with concurrent home inspection; $199 – $275 without	$300 – $600	$100 with concurrent home inspection, $175 without
Estimated Annual Energy Use	Yes	Yes	Yes
Energy Efficiency Recommendations	Yes	Yes	Yes
Estimated Energy Efficiency Cost Savings	Yes	Yes	Yes

CITY OF PALM SPRINGS OFFICE OF SUSTAINABILITY Healthy Planet, Healthy You.	**Liaison Report**
PRESENTED FOR COMMISSION MEETING DATE: Oct 15, 2019	**SUBMITTED BY: Jim Flanagan**
LIAISON FOR NAME: Bighorn Sheep Habitat Protection	**SUBMITTED DATE: Oct 10, 2019**
MEETING DATE: October 7, 2019	**NEXT MEETING DATE: TBD**

Goal:

Facilitate education and awareness associated with new dog ordnances and signs at trailheads.

Summary:

We met on Monday Oct 7 with Jane Garrison, Jim Flanagan, Patrick Tallarico and David Cohan (parks and rec commission)

1. Discussed the need for shirts that identify rangers as “official volunteers” for the city. Jane is going to work with a friend Michael regarding the design
2. Need for City to associate with volunteers. Patrick is going to work with the parks and rec commission and the sustainability Commission so the Palm Springs rangers are "endorsed" by the city.
3. Talked about the need for general liability waivers for rangers and volunteers to fill out and sign.
4. Jane has friend, Jason, that is already working with volunteer rangers. She will get some info about the program.
5. Setup a Facebook page to coordinate ranger staffing at the most popular trailheads. Link to the Oswit Canyon FB page.
6. Setup email address: palmspringsrangers@gmail.com
7. Prepare and print information brochures with alt dog walking areas, and FAQ details on why the ordnance is needed. Jane provided a list of hiking areas and Daniel found a very useful FAQ from BLM on dogs in the Santa Rosa and San Jacinto ranges. Jim to combine the two.

Other issues identified but not currently in the priority queue:

No dogs sign was broken off at South Lykken trail. Patrick so see about a new one. Many of them are only affixed with one bolt. Should be two bolts.

Recommendation/Request

Reserve small budget for shirts and brochures.

ACTION ITEMS REQUEST TO COMMISSION	
ACTION ITEMS REQUEST TO OFFICE OF SUSTAINABILITY	
POTENTIAL FISCAL IMPACT/REQUEST IF ANY:	

CITY OF PALM SPRINGS OFFICE OF SUSTAINABILITY Healthy Planet, Healthy You.	**Subcommittee Report**
PRESENTED FOR COMMISSION MEETING DATE: October 15, 2019	**SUBMITTED BY: Patrick Tallarico**
SUBCOMMITTEE NAME: Standing SubCommittee on Waste Reduction (SSCoWR)	**SUBMITTED DATE: October 10, 2019**
LAST SUBCOMMITTEE MEETING DATE: October 3, 2019	**NEXT SUBCOMMITTEE MEETING DATE: November 7, 2019**

Subcommittee Goal:

Divert 90% of waste generated by the City of Palm Springs from landfill by 2030.

Summary:

1. C&D Waste Ordinance.

- No developments to report.

2. Reducing Single-use Plastic Food Ware and Plastic Straws by Food Service Establishments.

- Staff presented a rough draft of ordinance language for the disposable food ware reduction ordinance. In Item 2B, the group agreed that it made sense to include broader language that allows customers to provide a range of reusable products, not just cups. The group also agreed to make the reuse voluntary but make the condiments on site mandatory. The group preferred the broader prohibition on polystyrene sales, not just the prohibition on food vendors using polystyrene. A statement will be added to reference signage in the establishment about proper management of their materials.
- Manager Tallarico will work with lawyers from BBK to develop a draft of the ordinance and present it to the full Commission at the October meeting.
- Manager Tallarico will be seeking volunteers to assist with a survey of local food establishments to determine a baseline for types of food service ware being used now. He shared a draft survey that will be used to collect data.
- The City will be working to develop resources to assist businesses in complying with the requirements so that assistance is available when the ordinance takes effect.

3. Battery Recycling Project

- Staff filed the first progress report with the State on September 30th to document progress under the grant we received from CalRecycle for the battery recycling program.

4. Toward a Public Spaces Recycling Program for the City of Palm Springs.

- The group focused on signage during its October meeting. The City provided draft sign graphics for the group's review. The group provided feedback which staff will relay to the contractor. Manager Tallarico will work with Commissioner McCann to finalize the sign drafts so that they can be presented to the full Commission on October 17th. Maintenance staff suggested that the signage would need to go to City Council

for approval before it was installed.

- City staff assisted The Cultural Center in a recycling pilot. The City provided the Center with recycling containers to use at a weekend event September 19-22 to assess customer response. Staff created signs for the counter and an ad for inside the theater that would run before moves to promote recycling of plastic bottles and aluminum cans. The Center was able to fill three and a half curbside recycling bins provided by Palm Springs Disposal. City staff is formalizing a Memorandum of Understanding with the Center and conduct more pilots related to recycling and reusable food ware.
- Commissioner McCann continued to coordinate with the Desert Learning Academy on a potential recycling project. Commissioner McCann plans to meet with the students on October 14th to discuss data collection and analysis.
- Commissioner McCann met with Manager Tallarico on September 15th to discuss next steps with park trash and recycling containers. Manager Tallarico will meet with Facilities and Park Maintenance staff to discuss the process for addressing changes to park trash and recycling containers and installing signage.

5. Palm Springs Waste and Recycling Materials Management Investigation.

- PSDS worked from the materials that were drafted by Commissioner Miller and developed a web site focused on plastics recycling and information on how to properly prepare materials for recycling. The group discussed these updated materials at its October 3rd meeting and provided some suggested changes to PSDS on both the website and the preparation information. PSDS will update the documents and provide new versions to the Committee for review.

6. Waste and Recycling Reporting

- Nothing new to report.

7. Downtown Trash and Recycling Containers

- Sustainability staff worked with Maintenance staff to develop the staff report for the purchase of new containers. The report was presented to City Council at the September 18th meeting and approved unanimously.
- Manager Tallarico met with Downtown Maintenance staff on October 3rd to discuss the purchase order for the containers and discuss final design details. Maintenance staff suggested that any design changes would need to be resubmitted to Council and worked to identify labeling options that could be accommodated with the current design. They also suggested, as noted above, that any signage should go to Council for approval as signage downtown has been a significant concern of downtown merchants. Maintenance did indicate they have developed a plan for moving the current containers into the downtown garages so that some of them can be reused.

8. Parks Trash and Recycling Containers

- As noted above, Commissioner McCann will work with Manager Tallarico and Maintenance staff to develop a strategy for improving the trash and recycling container situation in the parks.

9. City Website

- The Committee briefly reviewed the City's recycling-related website. PSDS provided updates to some of the references to their programs. The group agreed that the City's website should be organized such that there was a general recycling page and then separate pages for residential, commercial, special events, and other special topics. The page should link to PSDS' website where appropriate to avoid redundancy and possibilities for contradictory information.

10. Outreach

- The group reviewed some initial thoughts on an outreach strategy. They provided the following additions:
    - Include messaging to hotels about recycling in public spaces and educating staff
    - Add "Events" to the list of target audiences
        - Manager Tallarico will follow up with Janice Lopez to coordinate with Village Fest vendors
        - Liz will work with Chris Cunningham on labeling containers for events
    - Shopping Centers
        - Manager Tallarico will check with planning on who dictates trash and recycling containers on these properties
    - Caterers
        - Focus on food waste, SB 1383
- City staff will send a note to Main Street Merchants to coordinate on the idea of a brown bag session on trash and recycling.
- The Committee discussed the ONE-PS Brown Bag
    - PSDS will present information on their new web site, including information on how to prepare materials
    - Manager Tallarico will provide some information on the battery recycling program and the work with the Cultural Center and provide a reminder about the shredding and e-waste events on the 19th.
    - Commission McCann will briefly present information on public space recycling

11. Non-compliance with Commercial Recycling and Organics Requirements

- There are about 140 of over 800 businesses that did not respond to the non-compliance letter. Gary and a PSDS staff representative will visit each of these remaining businesses to assess their compliance status. These visits will occur on the following schedule:
    - Tuesday October 8, 10-12 and 2-4
    - Thursday October 10, 10-12 and 2-4
    - Wednesday October 16, 10-12 and 2-4
    - Thursday October 17, 10-12 and 2-4

  Manager Tallarico will participate on Tuesday October 8th. Other Committee members are welcome to participate on other days. **Please let Manager Tallarico if you would like to go and on what day.**

Recommendation/Request

Subcommittee members will continue to conduct research and refine products to improving recycling rates and report on progress at future Commission meetings.

Commission members are asked to review and provide comments or approve the draft ordinance language so that it can be put forward to the City Council.

ACTION ITEMS REQUEST TO COMMISSION	Review and comment on or approve the draft disposable food ware reduction ordinance.
ACTION ITEMS REQUEST TO OFFICE OF SUSTAINABILITY	Develop draft disposable food ware reduction ordinance and present to Council. Continue to work with Maintenance on downtown and other public spaces recycling programs. Work with Commissioner McCann on Signage topic for City Council. Develop draft content for updated website. Coordinate with Main Street on Brown Bag. Refine outreach strategy.

POTENTIAL FISCAL IMPACT/REQUEST IF ANY:	N/A

CITY OF PALM SPRINGS OFFICE OF SUSTAINABILITY Healthy Planet, Healthy You.	**COMMITTEE REPORT**
PRESENTED FOR COMMISSION MEETING DATE: 10/15/19	**SUBMITTED BY: David Freedman**
COMMITTEE NAME: Standing Committee on Water Conservation	**SUBMITTED DATE: 10/04/19**
COMMITTEE MEETING DATE: 10/02/19	**NEXT COMMITTEE MEETING DATE: 11/07/19, 9 am**

Committee Meeting Goals:

- City turf conversion project
- City water conservation rules and enforcement
- DWA liaison role
- Work plan for FY 19-20
- Schedule for future meetings
- Potential topics for ONE-PS Sustainability Brown Bag

Summary:

Manager Tallarico provided an update on the city turf conversion project. Following discussions with Desert Water Agency (DWA), the City will concentrate on turf removal projects for city-owned properties. Projects under consideration include a walking path around Victoria Park and the airport at a location to be determined. The Airport Commission has established a Landscape Committee to review landscaping needs at the airport. The Office of Sustainability has budgeted $150,000 for City turf removal and these projects would be eligible for a $3/square foot rebate from DWA, up to $100,000, for a total of $250,000 in turf removal. Additional funds may be available through Prop 1 for an airport demonstration project. Manager Tallarico will follow up with airport, parks and rec and maintenance staff on these projects.

Committee members discussed the City's water conservation rules under Palm Springs Municipal Code Chapter 11.06 and their enforcement. DWA also has water conservation rules, which are posted on its website. Manager Tallarico noted instances where water from sprinklers runs off onto driveways and streets, in violation of the City's and DWA's water waste prohibitions. He will follow up with Code Enforcement to see whether these cases are referred to DWA for its enforcement. He will also follow up with DWA on including a sprinkler use education brochure as a DWA bill insert after reseeding season.

Commissioner Freedman explained his role as the Commission's liaison to DWA, which is to attend its biweekly Board meetings and report back to the Commission at its monthly meeting. Commissioner Miller said she would join Commissioner Freedman at the DWA Board meetings beginning October 15, and Commissioner Freedman will introduce her to the DWA Board then. In response to Commissioner Miller's question on methane capture at the City's wastewater treatment plant, Manager Tallarico said he would follow up with the City Engineering Services Department.

Committee members agreed to meet the first Wednesday of each month at 9 am. The November meeting will be on the following day, as the Energy Code training session is on the first Wednesday in November. Committee members will discuss the FY 19-20 work plan at the next meeting.

Manager Tallarico noted that the Office of Sustainability will be leading the ONE-PS Brown Bag lunch on October 17, and each Standing Committee is being asked about topics in its area to be presented. Water conservation topics will be DWA's recently announced rebate program and water waste. Manager Tallarico will follow up with DWA to get information on their rebate programs and water restrictions to present at the Brown Bag.

Recommendation/Request:

As noted below.

ACTION ITEMS REQUEST TO COMMISSION	None at this time.
ACTION ITEMS REQUEST TO OFFICE OF SUSTAINABILITY	Work with airport, parks and rec and maintenance staff on turf removal projects. Work with DWA on water conservation education.
POTENTIAL FISCAL IMPACT/REQUEST IF ANY:	$150,000 has been budgeted in FY 19-20 for the City turf conversion projects.