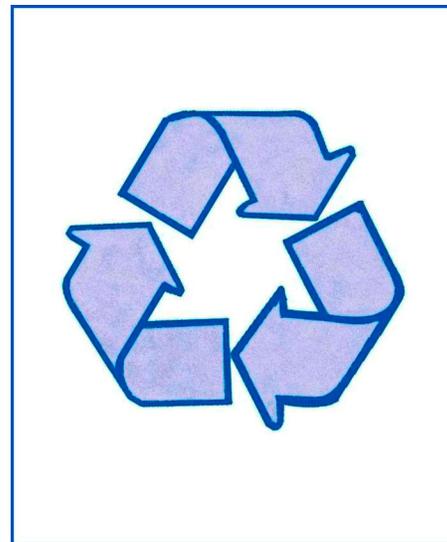




# Sustainable Development Element





## 9.0 SUSTAINABLE DEVELOPMENT ELEMENT

### 9.1 INTRODUCTION

According to U.S. Department of Energy's Center for Sustainable Development, buildings constructed using conventional methods account for:

- 65% of all electrical energy consumption,
- 30% of all green gas generation,
- 30% of all raw material use,
- 30% of all landfilled waste,
- 12% of all potable water consumption.

In an effort to reduce the impacts of building construction and occupation on the current and future environment, the concept of “Sustainable Development” has become popular in discussions of new development.

Sustainable Development is defined as:

*“A balance between economic growth and environmental protection. Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs.”*

The concept of sustainable development first became recognized in 1980 when the International Union for the Conservation of Nature published the World Conservation Strategy. Since then, the term has become commonplace with its general use occurring with the publication of a 1987 report from the United Nations Bruntland Commission.

Sustainable development is a combination of three specific concepts. These are:

- Environmental Sustainability,
- Economic Sustainability, and
- Social-Political Sustainability.

Environmental sustainability is defined as the ability of the environment to continue to properly function indefinitely. This is accomplished through programs designed to meet the current needs of society without compromising the welfare of future generations. Its goal is to minimize environmental degradation and to stop and ultimately reverse the practices that have led to it. For environmental sustainability, humans must only use natural resources at a rate at which they can be replenished naturally. Primary natural resources that are the focus of sustainable practices include those raw materials needed to produce consumable products, energy resources, water, and air.



While environmental sustainability is a primary goal of sustainable development, sustainable development programs must also be economically feasible and must be acceptable to society. Programs that have excessive costs to the population or that would drastically alter normal lifestyles are prone to failure.

In response, the United Nations established the 2005 Urban Environmental Accords which outline specific goals for jurisdiction to consider. These include goals for sustainability in the following areas:

- Energy
  - ◆ Renewable Energy
  - ◆ Energy Efficiency
  - ◆ Climate Change
- Waste Reduction
  - ◆ Zero Waste
  - ◆ Manufacturer Responsibility
  - ◆ Consumer Responsibility
- Urban Design
  - ◆ Green Building
  - ◆ Urban Planning
  - ◆ Slums
- Urban Nature
  - ◆ Parks
  - ◆ Habitat Restoration
  - ◆ Wildlife
- Transportation
  - ◆ Public Transportation
  - ◆ Clean Vehicles
  - ◆ Reducing Congestion
- Environmental Health
  - ◆ Toxic reduction
  - ◆ Healthy Foods Systems
  - ◆ Clean Air
- Water
  - ◆ Drinking Water Access
  - ◆ Source Water Conservation
  - ◆ Waste Water Reduction

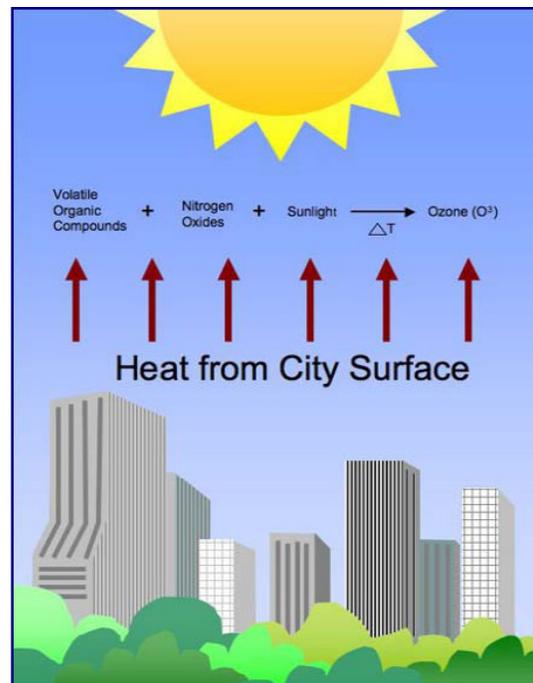
In 1999, the LEED Green Building Rating System for New Construction was established to assist the building industry in improving the quality of buildings and reduce their impact on the environment. LEED (Leadership in Energy and Environmental Design) is one of several programs designed to quantitatively rate buildings by the impact on the current and future environment. The program evaluates numerous aspects of building programs including the following:



- Site Selection
- Brownfield Development
- Transit Oriented Development
- Maximization of Open Space
- Stormwater Management
- Heat Island Effects
- Light Pollution Reduction
- Efficient Water Usage in Structures
- Efficient Water Usage in Landscaping
- Innovative Wastewater Technologies
- Energy Conservation
- Construction Waste Management
- Implementation of Ongoing Recycling Programs
- Use of Recycled, Renewable and/or Locally Produced Building Materials

## 9.2 GREENHOUSE GAS EMISSIONS

Gases that trap heat in the atmosphere are called “greenhouse gases”, which could cause global climate changes. Global climate change could affect the average weather on earth that can be measured by wind patterns, storms, precipitation and temperature. Although there has been disagreement as to the speed of global warming and the extent of the impacts attributable to human activities, most agree that there is a direct link between increased emission of greenhouse gases and long-term global temperature. What greenhouse gases have in common is that they allow sunlight to enter the atmosphere, but trap a portion of the outward-bound infrared radiation and warm up the air. The process is similar to the effect greenhouses have in raising the internal temperature, hence the name greenhouse gases. Both natural processed and human activities emit greenhouse gases. The accumulation of greenhouse gases in the atmosphere can increase the earth’s temperature, while emissions from human activities such as electricity generation and motor vehicles operations can elevate the concentration of greenhouse gases in the atmosphere. The principal greenhouse gases are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and water vapor (H<sub>2</sub>O). Carbon dioxide is the reference gas for climate change because it is the predominant greenhouse gas emitted. To account for the varying warming potential of the different greenhouse gases, greenhouse gas emissions are often





quantified and reported as CO<sub>2</sub> equivalents (eCO<sub>2</sub>). Large emission sources are reported in million metric tons of CO<sub>2</sub>E (MMTeCO<sub>2</sub>).

In 2005, in recognition of California's effects on climate change, Governor Schwarzenegger established Executive Order S-3-05, which set forth a series of target dates by which statewide emissions of greenhouse gases could be progressively reduced, as follows:

- By 2010, reduce greenhouse gas emissions to 2000 levels,
- By 2020, reduce greenhouse gas emissions to 1990 levels,
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill No. 32; California Health and Safety Code Division 25.5, Sections 38500, et. seq., or AB32), which required the California Air Resources Board (CARB) to design and implement emissions limits, regulations, and other measures, such that feasible and cost-effective statewide greenhouse gas emissions would be reduced to 1990 levels by 2020 (representing an approximate 25 percent reduction in emissions). In 2007, CARB directed staff to pursue 37 early actions for reducing greenhouse gases under the California Global Warming Act of 2006 (AB32). Several strategies were considered including a Low Carbon Fuel Standard; regulations for refrigerants with high global warming potential; guidance and protocols for local governments to facilitate greenhouse gas reductions and green ports.

In addition to approving the 37 greenhouse gas reduction strategies, CARB directed staff to further evaluate early action recommendations made at the June 2007 meeting, and to report back to CARB within six months. Since then, CARB staff published the *Draft List of Early Actions Measures To Reduce Greenhouse Gases In California Recommended For Board Consideration* in September 2007, which recommended 44 measures to help reduce greenhouse gases by Year 2012. These measures included the following:

<u>ID#</u>	<u>Sector</u>	<u>Strategy Name</u>
<u>1</u>	<u>Fuels</u>	<u>Above Ground Storage Tanks</u>
<u>2</u>	<u>Transportation</u>	<u>Diesel – Off-road equipment (non-agricultural)</u>
<u>3</u>	<u>Forestry</u>	<u>Forestry protocol endorsement</u>
<u>4</u>	<u>Transportation</u>	<u>Diesel – Port trucks</u>
<u>5</u>	<u>Transportation</u>	<u>Diesel – Vessel main engine fuel specifications</u>
<u>6</u>	<u>Transportation</u>	<u>Diesel – Commercial harbor craft</u>
<u>7</u>	<u>Transportation</u>	<u>Green ports</u>
<u>8</u>	<u>Agriculture</u>	<u>Manure management (methane digester protocol)</u>
<u>9</u>	<u>Education</u>	<u>Local government greenhouse gas reduction guidance/protocols</u>
<u>10</u>	<u>Education</u>	<u>Business greenhouse gas reduction/protocols</u>
<u>11</u>	<u>Energy Efficiency</u>	<u>Cool communities program</u>
<u>12</u>	<u>Commercial</u>	<u>Reduce high global warming potential greenhouse gases</u>
<u>13</u>	<u>Commercial</u>	<u>Reduction of PFCs from semiconductor industry</u>



<u>ID#</u>	<u>Sector</u>	<u>Strategy Name</u>
14	Transportation	SmartWay truck efficiency
15	Transportation	Low Carbon Fuel Standard
16	Transportation	Reduction of HFC-134 from DIY motor vehicle air condition servicing
17	Waste	Improved landfill gas capture
18	Fuels	Gasoline disperser hose replacement
19	Fuels	Portable outboard marine tanks
20	Transportation	Standards for off-cycle driving conditions
21	Transportation	Diesel – Privately owned on-road trucks
22	Transportation	Anti-idling enforcement
23	Commercial	SF <sub>6</sub> reductions from non-electric sector
24	Transportation	Tire inflation program
25	Transportation	Cool automobile paints
26	Cement	Cement (A); Blended cements
27	Cement	Cement (B); Energy efficiency of California cement facilities
28	Transportation	Ban on HFC release from motor vehicle air condition service/dismantling
29	Transportation	Diesel – off-road equipment (agricultural)
30	Transportation	Add air conditioning leak tightness test and repair to smog check
31	Agriculture	Research greenhouse gas reductions from nitrogen land applications
32	Commercial	Specifications for commercial refrigeration
33	Oil and Gas	Reduction in venting/leaks from oil and gas systems
34	Transportation	Requirement of low-GWP greenhouse gases for new motor vehicle air conditioners
35	Transportation	Hybridization of medium and heavy-duty diesel vehicles
36	Electricity	Reduction of SF <sub>6</sub> in electricity generation
37	Commercial	High global warming potential refrigerant tracking, reporting and recovery program
38	Commercial	Foam recovery/destruction program
39	Fire Suppression	Alternative suppressants in fire protection systems
40	Transportation	Strengthen light-duty vehicle standards
41	Transportation	Truck stop electrification with incentives for truckers
42	Transportation	Diesel – Vessel speed reductions
43	Transportation	Transportation refrigeration – electricity standby
44	Agriculture	Electrification of stationary agricultural engines

Presently, neither SCAQMD, CARB, nor any Federal agency has implemented emission rate criteria for CO<sub>2</sub> emissions for quantifying a significant contribution to global climate change. Furthermore, there are no rules or regulations established by the CARB, SCAQMD, State Clearinghouse or other resource agency applicable to proposed development projects that define what a “significant” source of greenhouse gas emissions could be. There are also no applicable facility-specific greenhouse gas emission limits or caps. Pursuant to Senate Bill 97, the



Governor’s Office of Planning and Research (OPR) is in the process of developing CEQA guidelines “for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions.” OPR is required to “prepare, develop, and transmit” the guidelines to the Resources Agency on or before July 1, 2009. The Resources Agency must certify and adopt the guidelines on or before January 1, 2010. Upon adoption the City will be required to adhere to the guidelines.

Utilizing sustainable development practices and principles can help to achieve energy efficiency, occupant health and safety, materials efficiency, water efficiency, landscape efficiency, and efficiency in project design.

### 9.2.1 Relationship to Other Elements

The Sustainable Development Element is interconnected with all other elements of the General Plan. The goals and policies of the Sustainable Development Element are directly tied to the implementation of all other elements including the following:

**Land Use Element:** Sustainable development emphasizes urban design and land use planning to efficiently use available land while reducing the demand on natural resources. The reuse of brownfield sites and redevelopment of older urban areas reduces urban sprawl and the unnecessary use of natural resources. Proper building location to effectively use passive solar heating and the use of drought tolerant landscaping in new developments further assist in saving resources.

**Circulation Element:** Sustainable development promotes the use on alternative transportation systems such as mass transit, pedestrian and bicycle modes of transportation, while promoting transit-oriented development designed to take advantage of mass transit systems.

**Open Space & Conservation Element:** Sustainable development promotes the conservation of basic resources such as clean air and water. It promotes open space and the provision of urban parks and recreation facilities. It also promotes urban forestry designed to improve the living environment and air quality, as well as waste reduction designed to reduce landfill demand and the use of raw materials.

**Public Health and Safety Element:** Sustainable development promotes the reduction in the use of toxic materials.

**Public Services & Facilities Element:** Sustainable development promotes the conservation of clean water, the control of storm water contamination through NPDES programs, and the preservation of energy sources such as electricity and natural gas. Conservation of these resources can avoid costly infrastructure improvements by utility purveyors.



**Housing Element:** Energy conservation is a required component of Housing Elements. Conservation measures found in the Sustainable Development Element may be incorporated into those of the Housing Element.



## 9.3 GOALS AND POLICIES

### ENERGY

**Goal 9.1:** Reduce the City's per capita energy usage.

Policy 9.1.1: The City shall work with Southern California Edison to promote energy conservation at residences and businesses.

Policy 9.1.2: The City shall incorporate energy conservation measures into conditions of approval for new development projects.

### WASTE REDUCTION

**Goal 9.2:** Reduce the total quantity of waste generated within the City requiring landfill disposal to meet or exceed the State waste diversion goals.

Policy 9.2.1: The City shall reduce the use of disposable products at all City facilities.

Policy 9.2.2: Require all new development projects to recycle construction and demolition wastes.

Policy 9.2.3: The City shall work with its franchise waste collection company to expand current recycling programs.

### URBAN DESIGN

**Goal 9.3:** Support sustainable development through good urban design practices.

Policy 9.3.1: Incorporate "green" building practices into the review of all new or renovated development projects.

Policy 9.3.2: Site and building design in new developments should maximize opportunities for efficient energy performance.

### URBAN NATURE

**Goal 9.4:** Provide parks and open space throughout the City.

Policy 9.4.1: The City shall implement the Open Space and





Conservation Element of the General Plan to provide an average of five acres of parks and open space for every 1,000 residents.

Policy 9.4.2: The City shall provide trees and other landscaping along all arterial highways.

Policy 9.4.3: The City shall seek to preserve open space and habitat areas on Blue Mountain.

## TRANSPORTATION

**Goal 9.5: Provide alternative transportation modes designed to reduce vehicle miles traveled.**

Policy 9.5.1: The City shall encourage alternative transportation modes, including mass transit, ride sharing, bicycles, and pedestrian transportation.

Policy 9.5.2: The City shall encourage the creation of local jobs designed to reduce commuter mileage and fuel consumption.

Policy 9.5.3: The City shall encourage new and rehabilitation projects that support alternative transportation modes.

## ENVIRONMENTAL HEALTH

**Goal 9.6: Promote the use of non-hazardous materials in residences, businesses, and institutional facilities.**

Policy 9.6.1: The City shall discourage the use of volatile and hazardous materials at municipal facilities.

Policy 9.6.2: The City shall support public environmental health agencies in promoting healthy environment programs.

## WATER

**Goal 9.7: Reduce the City's per capita demand for water consumption.**

Policy 9.7.1: The City shall work with Riverside Highland Water Company to reduce water consumption throughout the City.

Policy 9.7.2: The City shall incorporate water conservation into the development review process.



**CITY BUILDINGS AND FACILITIES**

Goal 9.8: The City shall lead the development community by example in green building, and energy and resource conservation practices.

Policy 9.8.1: The City shall support green development standards for new or rehabilitated public buildings and facilities.

Policy 9.8.2: The City shall actively reduce greenhouse gas emissions from public facilities throughout the community.



## 9.4 IMPLEMENTATION PROGRAM

Table 9.1 presents the implementation plan designed to implement the policies of the Sustainable Development Element. One or more implementation programs are provided for each policy.

The implementation programs identify:

- The individual policy and proposed action
- Its relationship to specific projects or overall City policy
- Primary and secondary responsibility for implementation
- Potential funding sources
- Implementation priority

The General Plan Implementation Program is presented in a table format. Each policy of the General Plan is presented with the following information:

- **Policy Number:** Shows each policy number by General Plan Element.
- **Action Type:** Indicates whether the policy is project review specific or requires other administrative or judicial actions.
- **Policy Action:** Describes the policy and proposed actions for its implementation.
- **Primary Responsibility:** Indicates what agency is primarily responsible for implementation of the proposed action.
- **Support Responsibility:** Indicates what agencies are responsible for supporting the primary agency.
- **Funding Source:** Indicates the general sources of funding for the implementation action.
- **Priority:** Indicates the level of priority given to the implementation action.

The following codes are used throughout the Implementation Program table:

**Table 9.1**  
**Implementation Table Codes**

Code	Definition
<b>Responsible Agencies</b>	
SOC	State of California
CA	City Attorney
CC	City Council
COC	City of Colton
COSB	County of San Bernardino
CD	Community Development Department



**Table 9.1  
Implementation Table Codes**

<b>Code</b>	<b>Definition</b>
CJUSD	Colton Joint Unified School District
CM	City Manager
CS	Community Services Department
ENG	City Engineer
FCD	County Flood Control District
FD	Fire Department
FIN	Finance Department
FWH	Franchised Waste Hauler
GTF	Grand Terrace Foundation
PW	Public Works/Building & Safety Department
RHWC	Riverside Highland Water Company
SANBAG	San Bernardino Association of Governments
SCAG	Southern California Association of Governments
SD	Sheriff's Department
SCE	Southern California Edison
US	United States Federal Government
<b>Funding Sources</b>	
CFD	Community Facilities District
FG	Federal Grants
GF	City General Fund
ISF	Impact/Service Fee
LMD	Landscape Maintenance District
PP	Public/Private Partnership
RDA	Redevelopment Agency
SG	State Grants
UAF	User/Application Fees
<b>Priorities</b>	
1	Current. Action already implemented.
2	Urgent. Action should be undertaken within the next fiscal year. It is either required by law or is critical to the City.
3	Important. Action should be taken in the near future. It may be necessary for the completion of other actions.
4	Ongoing. Action is continuous or is the continuation of an existing action or program. It requires no further action to implement.
5	Desirable. Action would benefit the community, but does not require short term implementation or may require other actions to be taken first.



**Table 9.1**  
**Implementation Table Codes**

<b>Code</b>	<b>Definition</b>
6	Optional. Action has a relatively low priority, but is desirable. It is not critical to other actions.



Policy	Project Review	Initiative	Policy/Action	Primary Responsibility	Support Responsibility	Funding Source	Priority
<b><u>Sustainable Development Element</u></b>							
<b><u>Goal 9.1: Reduce the City's per capita energy usage.</u></b>							
9.1.1	X	X	The City shall work with Southern California Edison to promote energy conservation at residences and businesses.				
			<b><u>a. The City shall acquire public education materials on energy conservation and make them available at City Hall and public functions.</u></b>	CS	SCE	GF, SG	5
			<b><u>b. The City shall conduct an energy audit of all City facilities and implement energy conservation measures as appropriate.</u></b>	CS	SCE	GF, SG	5
			<b><u>c. The City shall implement a program of replacing incandescent traffic signal lights with energy efficient systems.</u></b>	CS	PW	GF	3
9.1.2	X	X	The City shall incorporate energy conservation measures into conditions of approval for new development projects.				
			<b><u>a. All new development projects shall be reviewed for energy efficiency. The design and construction of durable buildings that are efficient and economical to operate shall be encouraged.</u></b>	CD	PW	UAF	4
			<b><u>b. All new development projects shall comply with Title 24 of the California Government Code at a minimum.</u></b>	PW	CD, ENG	GF, UAF	4
			<b><u>c. The City shall encourage green building development by adopting a green building ordinance which incentivizes developers to meet LEED building standards for new and refurbished projects. review the Zoning Ordinance and incorporate provisions for energy conservation. This may include the use of incentive programs for projects that exceed minimum conservation standards.</u></b>	CD	CA, PW	GF	3
<b><u>Goal 9.2: Reduce the total quantity of waste generated within the City requiring landfill disposal to meet or exceed the State waste diversion goals.</u></b>							
9.2.1	X	X	The City shall reduce the use of disposable products at all City facilities.				
			<b><u>a. The City shall develop and implement a policy for the purchase of "green" products whenever possible.</u></b>	CS	CM	GF	5
			<b><u>b. Use the City's website to provide educational materials that inform residents of the full range of recycling techniques that are available.</u></b>	<u>CS</u>	<u>CM, CD, PW</u>	<u>GF</u>	<u>5</u>



Policy	Project Review	Initiative	Policy/Action	Primary Responsibility	Support Responsibility	Funding Source	Priority
9.2.2	X	X	Require all new development projects to recycle construction and demolition wastes.				
			<b>a. Develop standard conditions of approval for all new developments to prepare and implement a construction/demolition waste recycling plan.</b>	PW	CD	UAF	4
			<b>b. Include text within all demolition permits that encourages recycling of demolition and construction waste within new and rehabilitation projects.</b>	<u>PW</u>	<u>CD</u>	<u>UAF</u>	<u>2</u>
9.2.3	X	X	The City shall work with its franchise waste collection company to expand current recycling programs.				
			<b>a. The City shall review its current waste collection franchise to determine whether revisions are appropriate for an increase in recycling programs provided to the City.</b>	CS	CA, CM	GF	4
			<b>b. The City shall work with its waste collection franchisee to develop and implement public education programs for waste reduction, reuse and recycling.</b>	CS	FWH	GF, SG, PP	4
			<b>c. The City will work with local businesses in an effort to reduce the use of disposable shopping bags.</b>	CS	--	GF, SG, PP	4
			<b>d. The City shall promote “grasscycling” for residences and businesses.</b>	CS	FWH	GF, SG, PP	4
<u>Goal 9.3: Support sustainable development through good urban design practices.</u>							
9.3.1	X	X	Incorporate “green” building practices into the review of all new or renovated development projects.				
			<b>a. The City shall review its Zoning Code and Building Codes to promote green building concepts into all development projects including possible incentives for the expanded use of green building concepts.</b>	CD	PW, CA	GF	3
			<del>The City shall implement green building practices into all new municipal projects.</del>	<del>CS</del>	<del>CM, PW</del>	<del>GF</del>	<del>3</del>
			<b>b. The City shall promote mixed use development projects that coordinate land uses with transportation systems and parks and open space in an effort to create a walkable neighborhood environment.</b>	CD	PW	GF	5
			<b>c. Encourage the use of shade trees within development project design, particularly along the southern elevations of main buildings where practical, to lessen energy needs, reduce heat island effect and improve air quality.</b>	<u>CD</u>	<u>PW</u>	<u>UAF</u>	<u>3</u>
<u>9.3.2</u>	<u>X</u>	<u>X</u>	<u>Site and building design in new developments should maximize opportunities for efficient energy performance.</u>				



Policy	Project Review	Initiative	Policy/Action	Primary Responsibility	Support Responsibility	Funding Source	Priority
			<b><u>a. Promote energy conservation in development projects by taking advantage of natural site features such as natural lighting and ventilation, sunlight, shade and topography during the site plan process.</u></b>	CD	PW, CM	UAF	3
<b><u>Goal 9.4: Provide parks and open space throughout the City.</u></b>							
9.4.1		X	The City shall implement the Open Space and Conservation Element of the General Plan to provide an average of five acres of parks and open space for every 1,000 residents.				
			<b><u>a. The City shall investigate the availability of State funds for open space acquisition.</u></b>	CD	CS	SG	4
			<b><u>b. The City shall identify potential park sites throughout the City and seek funding for acquisition and development of parklands.</u></b>	CD	CS, PW	SG, GF	4
9.4.2		X	The City shall provide trees and other landscaping along all arterial highways.				
			<b><u>a. The City shall develop a program and seek grant funds for the planting of shade trees along all arterial highways and on all municipal property.</u></b>	CS	CD	SG, FG	5
9.4.3	X	X	The City shall seek to preserve open space and habitat areas on Blue Mountain.				
			<b><u>a. The City shall work with the City of Colton and County of San Bernardino to evaluate the feasibility of developing a nature park on Blue Mountain.</u></b>	CD	CS, CM, CC	SG, FG	4
<b><u>Goal 9.5: Provide alternative transportation modes designed to reduce vehicle miles traveled.</u></b>							
9.5.1	X	X	The City shall encourage alternative transportation modes, including mass transit, ride sharing, bicycles, and pedestrian transportation.				
			<b><u>a. The City shall work with OmniTrans to promote mass transit programs.</u></b>	CS	CM, CC	SG, GF	5
			<b><u>b. The City shall continue to implement its Master Plan of Bikeways and seek new funding sources for bike lane construction.</u></b>	PW	CD, CS	SG, GF	4
			<b><u>c. The City shall require alternative transportation plans for all major employment generators as part of the development review process.</u></b>	CD	--	UAF, OMNI	4
9.5.2	X	X	<b><u>The City shall encourage the creation of local jobs designed to reduce commuter mileage and fuel consumption.</u></b>				
			<b><u>a. The City shall work with business owners, property owners and developers to promote local job generation.</u></b>	CD	PW,	UAF	4
9.5.3	X	X	<b><u>The City shall encourage new and rehabilitation projects that support alternative</u></b>				



Policy	Project Review	Initiative	Policy/Action	Primary Responsibility	Support Responsibility	Funding Source	Priority
			<u>transportation modes.</u>				
			<b><u>a. Encourage installation of shared vehicle parking and support facilities within new and refurbished commercial and industrial developments, i.e., dual fuel vehicles and charging systems on site, car pool parking, and bus stop shelters.</u></b>	<u>CD</u>	<u>PW</u>	<u>UAF</u>	<u>3</u>
			<b><u>b. Encourage building and site designs that facilitate pedestrian activity, such as providing direct connections to public walkways and neighboring land uses.</u></b>	<u>CD</u>	<u>PW</u>	<u>UAF</u>	<u>3</u>
			<b><u>c. The City shall require all new public and private development to include bike and walking paths wherever feasible.</u></b>	<u>CD</u>	<u>PW</u>	<u>UAF</u>	<u>3</u>
<b><u>Goal 9.6: Promote the use of non-hazardous materials in residences, businesses, and institutional facilities.</u></b>							
9.6.1		X	The City shall discourage the use of volatile and hazardous materials at municipal facilities.				
			<b><u>a. The City shall establish a policy designed to reduce the use of toxic and/or hazardous materials at municipal facilities including City Hall, City Maintenance Yard, parks, and the Senior Center.</u></b>	CS	--	GF, SG	5
9.6.2		X	The City shall support public environmental health agencies in promoting healthy environment programs.				
			<b><u>a. The City shall work with the San Bernardino County Department of Environmental Health to promote programs designed to reduce the use and/or release of toxic and hazardous materials at residence, businesses, and institutions.</u></b>	CS	COSB	GF, SG	5
<b><u>Goal 9.7 Reduce the City's per capita demand for water consumption.</u></b>							
9.7.1		X	The City shall work with Riverside Highland Water Company to reduce water consumption throughout the City.				
			<b><u>a. The City shall coordinate public education efforts regarding water conservation</u></b>	CS	RHWC	GF, PP, SG	4
			<b><u>b. The City shall support Riverside Highland Water Company in exploring the use of reclaimed water.</u></b>	<u>CS</u>	<u>RHWC, CD</u>	<u>GF, PP, SG</u>	<u>4</u>
9.7.2	X		The City shall incorporate water conservation into the development review process.				



Policy	Project Review	Initiative	Policy/Action	Primary Responsibility	Support Responsibility	Funding Source	Priority
			<b>a. The City shall include water conservation conditions of approval for all new development projects. This shall include water conservation within new or renovated buildings and in landscaping.</b>	CD	RHWC	UAF	4
			<b><u>b. The City shall encourage new construction to incorporate irrigation designs to assist in conserving potable water, such as computerized irrigation systems, drought-tolerant and smog-tolerant trees, shrubs, and groundcover, and the use of recycled water.</u></b>	<u>CD</u>	<u>PW, RHWC</u>	<u>UAF</u>	<u>3</u>
			<b>c. The City shall review the Zoning Code and incorporate water conservation requirements where appropriate.</b>	CD	CA, RHWC	GF	5
<b><u>Goal 9.8 The City shall lead the development community by example in green building, and energy and resource conservation practices, as feasible.</u></b>							
<u>9.8.1</u>	<u>X</u>	<u>X</u>	<u>The City shall support green development standards for new or rehabilitated public buildings and facilities, as feasible.</u>				
			<b><u>a. The City shall design and construct new and rehabilitated public buildings that are efficient and economical to own and operate, as feasible.</u></b>	<u>PW</u>	<u>CM, CD</u>	<u>GF, FG, SG</u>	<u>5</u>
			<b><u>b. The City encourage install and maintain shared vehicle parking and support facilities at all City facilities, as feasible, i.e., dual fuel vehicles and charging systems on site, car pool parking, and bus stop shelters.</u></b>	<u>PW</u>	<u>CM, CD</u>	<u>GF, FG, SG</u>	<u>5</u>
			<b><u>c. The City shall design projects to install and maintain accessible bicycle storage for visitors and occupants and include bicycle paths within new and refurbished public and public sponsored facilities.</u></b>	<u>PW</u>	<u>CM, CD</u>	<u>GF, FG, SG</u>	<u>5</u>
<u>9.8.2</u>		<u>X</u>	<u>The City shall actively reduce greenhouse gas emissions from public facilities throughout the community.</u>				
			<b><u>a. The City shall strive to incorporate alternate energy sources, such as solar, into City facilities, to the extent practical.</u></b>	<u>PW</u>	<u>CM, CD</u>	<u>GF, FG, SG</u>	<u>5</u>
			<b><u>b. The City shall strive to have at least 20% of the City vehicles utilizing an alternate fuel source, such as electric, liquid propane gas (LPG), etc. .</u></b>	<u>PW</u>	<u>CM, CD</u>	<u>GF, FG, SG</u>	<u>5</u>



## ACTION PROGRAMS

The following is a list of actions that may be taken by each section of the community to promote sustainable development practices.

<b>Sustainable Development Actions Residential</b>		
<b>Action</b>	<b>Implementation</b>	<b>Result</b>
Use energy efficient lighting	Switch to compact fluorescent light bulbs	Reduces energy consumption
Properly program house thermostats and use programmable thermostats-	Set thermostats to 78° in summer and 62° in the winter. Replace thermostats with programmable units.	Reduces energy consumption
Insulate homes-	Weather strip and caulk doors, windows and cracks.	Maintains internal temperature and reduces energy consumption
Properly maintain HVAC units	Clean filters and have a 2 year professional checkup	Reduces energy consumption
Purchase energy efficient appliances-	Purchase appliances labeled as “Energy Star”	Reduces energy consumption and heat production
Select the purchase of “Green Power” if given the option by the power company	Contact the power company and inquire if individual “Green Power” purchase options are available	Reduces demand for non-renewable fossil fuels and reduces greenhouse gas production
Plant trees that provide shade and wind protection to homes	Plant tree species that provide shade in summer and sun in winter	Reduces heating and air conditioning energy use
Reduce indoor water consumption	Add aerators to faucets, low flow shower heads, and low flush toilets	Reduce water demand
Reduce outdoor water consumption	Plant drought-tolerant native plants and grasses or Xeriscape landscape concepts	Reduces irrigation, fertilizer and pesticide use saving water, energy, and natural resources
Buy locally produced products	Purchase products produced locally to reduce product transportation	Reduces demand for fossil fuels, assists in improving air quality, reduces greenhouse gases
Use Low Volatile Organic Compound products	Select paints, cleaning products, and fabrics with low VOC production	Assists in improving air quality, reduces greenhouse gases
Use wood alternatives or FSC-certified wood products	Select environmentally friendly and rapidly renewable products or those produced locally or are FSC certified	Reduces the use of virgin wood products and energy demands for their production and transportation



<b>Sustainable Development Actions Residential</b>		
<b>Action</b>	<b>Implementation</b>	<b>Result</b>
Use rapidly renewable flooring products	Use flooring products of bamboo, cork, or eucalyptus that grow rapidly	Reduces demand for non-renewable resources
Use alternative transportation modes	Select carpools, buses bicycles or other alternative modes for commuting and other travel	Assists in reducing air emissions, the use of non-renewable fossil fuels, and greenhouse gases
Use high-efficiency personal transportation	Purchase a hybrid vehicle or other fuel efficient car	Assists in reducing air emissions, the use of non-renewable fossil fuels, and greenhouse gases



<b>Sustainable Development Actions Commercial/Industrial</b>		
<b>Action</b>	<b>Implementation</b>	<b>Result</b>
<b>New Facility Siting, Design and Construction</b>		
Control erosion and sedimentation	Prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). Use non-mechanical practices to clean surface water such as bioswales	Protects water quality
Select construction sites that are not environmentally sensitive	Select sites that are not adjacent to wetlands, on prime farmland, or have sensitive species or habitat present	Protects endangered species and sensitive habitat. Protects water quality.
Focus development on areas with existing infrastructure and services	Identify urban infill parcels instead of greenfields sites. Select sites that have existing public services and facilities.	Preserves habitat and natural resources. Reduces air emissions.
Promote “brownfields” development	Identify and redevelop previously contaminated sites	Improves water quality, reduces health hazards
Select site with available alternative transportation services	Select sites that are in close proximity to mass transit lines and bikeways.	Improves air quality, reduces demand for non-renewable fossil fuels.
Promote low emission and alternative energy vehicles	Design parking lots with preferred parking for low emission, alternative energy and carpool vehicles	Improves air quality, reduces demand for non-renewable fossil fuels.
Maximize open space	Reduce the development footprint through increased density. Develop useable open space areas that can also be used for biofiltration	Protects habitat, improve water quality
Use pervious paving materials	Incorporate pervious concrete and other pervious paving products that filter surface runoff	Improves water quality, reduces demand for detention basins



<b>Sustainable Development Actions Commercial/Industrial</b>		
<b>Action</b>	<b>Implementation</b>	<b>Result</b>
Reduce heat islands - parking lots	Use shade trees, paving materials with a high Solar Reflectance Index, and open grid paving in parking lots and driveways. Maximize open space areas around buildings and parking lots.	Reduces heat generation, energy consumption
Reduce heat islands – roofs	Use roofing materials with a high Solar Reflectance Index.	Reduces heat generation and energy consumption
Minimize light pollution	Use low sodium lights	Reduces glare
<b>Ongoing Operations</b>		
Provide alternative transportation education materials	Designate a transportation coordinator to assist employees in selecting carpool or other alternative transportation options	Improves air quality, reduces demand for non-renewable fossil fuels.