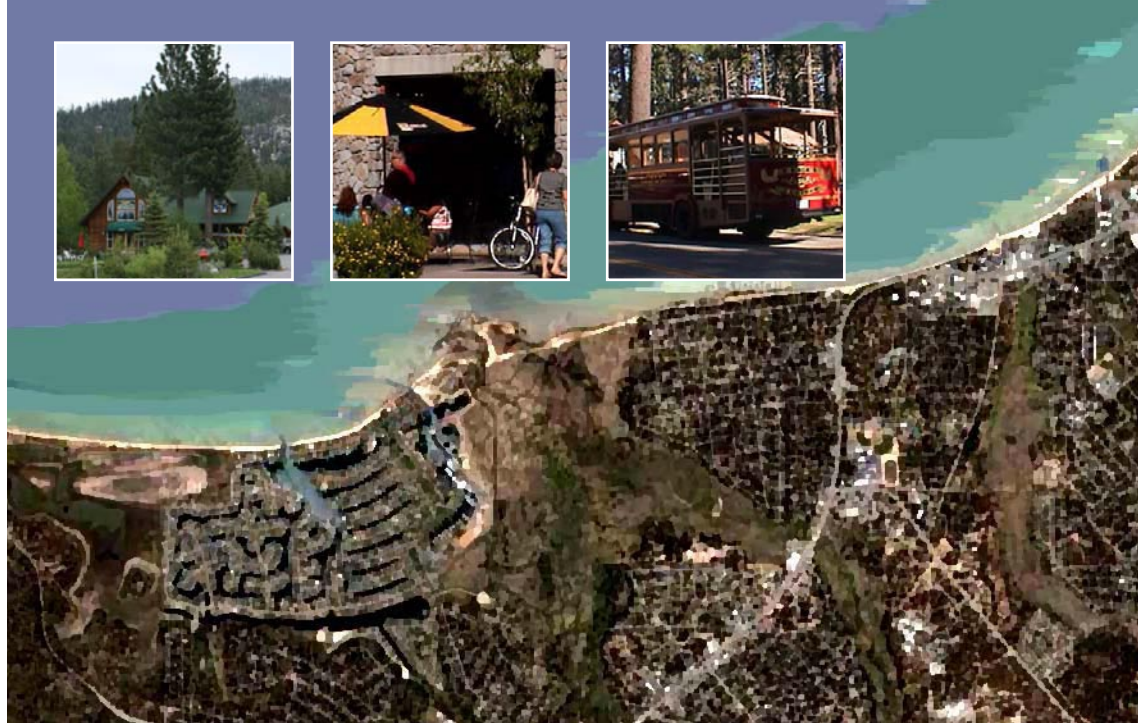
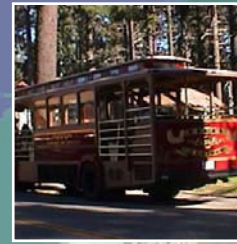


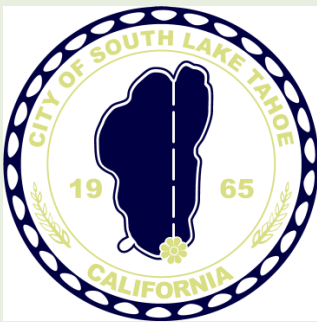
## Regional Planning Partners

[www.regionalplanningpartners.com](http://www.regionalplanningpartners.com)  
Community | Sustainability | Design



November 17, 2008

# City of South Lake Tahoe Sustainability Plan



## Vision for a Sustainable City of South Lake Tahoe

Looking back from the year 2028 – South Lake Tahoe has become a national story – successful because communities and public agencies made a concerted effort to invite investment that improved the region's competitive position and image while moving the city toward a more sustainable future. Gateways and places have been enhanced and Highway 50 has been transformed into an interconnected series of pedestrian-oriented mixed-use districts served by efficient and convenient transit and connected to adjacent neighborhoods. South Lake Tahoe has become nationally recognized as a bicycle-friendly community.

By 2028, the City has made significant advances toward sustainability that meets the needs of the present community without comprising the needs of future generations.

In 2028, South Lake Tahoe is:

**Efficient, Clear, Complete, Connected, Vibrant,  
Diverse, Healthy, Aware, Local and Green**

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# City of South Lake Tahoe

## Sustainability Plan



**November 17, 2008**

**Prepared by Regional Planning Partners**



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## Acknowledgements

Thank you to the City of South Lake Tahoe Green City Subcommittee, City Council, and the California Tahoe Conservancy for taking the important steps to initiate the process of becoming a sustainable City. Many thanks to the Interim Sustainable Working Group for taking time to attend a meeting, review and provide feedback on the Sustainability Concepts, Vision and Next Steps. This program was funded in part by the California Tahoe Conservancy and the City's Redevelopment Agency in addition to City government.



### City of South Lake Tahoe Council Members and Green City Subcommittee

Green City Subcommittee: Mike Weber and Kathay Lovell

Council Members: Ted Long, Jerry Birdwell, Bill Crawford

### Interim Sustainable Working Group

John Williams, David Kelly, Mike Berg, Jim Tarwater, Dr. Paul Killpatrick, Rosie Hackett, Carl Ribaud, David Kelly, Jeff Tillman, John Marchini, Jeanne Lear, Linda Bissett, Randy Kelly, Eli Ilano, Gary Moore, Blaise Carrig, Ty Polastri, Cindy Hannah, Deb Howard, John Andoh, Andrew Morris, Richard Solbrig, Shelly Barnes, Debbie Vreeland, Cheryl Murakami, Garry Bowen.

### Other Key Participants

David Jinkens, City Manager, City of South Lake Tahoe

Rick Angelocci, Assistant City Manager, City of South Lake Tahoe

Patrick Wright, California Tahoe Conservancy

Darin Dinsmore, Regional Planning Partners

Sarah Underhill, Regional Planning Partners

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## Introduction

The City is committed to conducting quarterly reports on their progress and an annual review and update of the overall sustainability plan. (See Attachment 1 from the Sustainability Toolkit for a Quarterly Report Template.)

The City of South Lake Tahoe created a Sustainability Plan by engaging the public in a community-based process designed to be inclusive, interactive and informed. **The Sustainability Plan includes programs focused on reducing greenhouse gas (GHG) emissions and climate change impacts.** Energy conservation and reducing our carbon footprint will take concerted efforts by the public and private sectors. The concept of sustainability will guide City policy, programs and projects. The long-term impacts of policy choices will be considered to ensure a sustainable legacy. The City is committed to meeting its existing needs without compromising the ability of future generations to meet their own needs.

The Plan builds on existing projects, programs and policies and sustainability strategy, tailored to the specific needs, challenges and opportunities of the City. There are over 35 projects and programs in progress that will help move the City and region toward a sustainable future.

New investment in the City should “set the green bar high” and demonstrate leadership in sustainable design. New investment and redevelopment should be designed to last and encourage a focus on environmentally sensitive planning and supporting programs, including:

- Supporting “Green” transit (low and zero-emission transit)
- Focusing on a mix of land uses that support transit use
- Emphasizing infill instead of Greenfield development
- Using alternative energy sources and infrastructure investment
- Incorporating “Cradle to cradle” design solutions and green building for new construction
- Planning for infrastructure that improves water and air quality
- Working with the public and private sector to reduce energy use in all buildings including residential, commercial and industrial properties

In the last few years, a wealth of information has become available on “sustainable communities” and green cities. Many communities have taken on the challenge of becoming more sustainable – some driven by local, regional or state agencies, and others by the private sector.

Mountain Communities are quite unique when it comes to the opportunities and challenges of incorporating green initiatives and sustainability. Climate, seasons, aspect, erosion, vegetation, growing season and solar exposure play an important role in defining unique opportunities for sustainability. For these reasons, it is important that we seek to understand the opportunities and challenges and consider the options for integrating sustainability across the wide spectrum of city departments and programs, private industry and business.

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## Definition of Sustainability

The concept of “sustainable development” emerged from the United Nations Brundtland Report in the late 1980s in recognition that we need to create prosperous economies and communities, while being sensitive to the impact we have on the planet and our future.

The core sustainability issues that emerged from this report include climate change, energy security, water and wastewater management, solid waste management, environmental protection, food security, health, safety, economic opportunity and responsible business practices. The Pathway Forum and the Sustainability Indicators for Lake Tahoe projects both adapted the Brundtland Commission’s definition of sustainability.

The concept of sustainability was introduced in the early 1980s by Lester Brown, founder of Worldwatch Institute, who defined a sustainable society as one that is able to satisfy its needs without diminishing the chances for future generation. Several years later, the report of the World Commission on Environment and Development (the “Brundtland Report”1897)) used the same definition to present the notion of sustainable development:

**“Humankind has the ability to achieve sustainable development---to meet the needs of the present without compromising the ability of future generations to meet their own needs”**

## Update Process

To date, the City of South Lake and the California Tahoe conservancy contracted Regional Planning Partners to assist in creating this sustainability plan and vision for the City. The three step process has involved: 1) developing and confirming a sustainability vision, 2) establishing and working with an interim sustainability working group of community leaders with diverse interests, and 3) running a public process to confirm the vision. This open and transparent process builds on work already completed and creates a framework to assist with a variety of city-wide programs and projects.

### Events to date:

Interim Sustainable Working Group Meeting, July 30, 2008: Over 30 community leaders gathered to discuss 10 draft sustainability concepts and a draft vision for the City of South Lake Tahoe. As a result of this meeting, a 4-page newsletter was written, designed and printed that outlines the City process, Draft Sustainability Concepts, Issues and Strategies that the City will face and a snapshot of works in progress. (See PDF of the newsletter in Appendix 2.)

Green City Kickoff Meeting, August 15, 2008: The City of South Lake Tahoe and the Green City Subcommittee held a special City Council meeting to kick-off the process, adopt First Steps and confirm the 10 sustainability concepts. Strong public support was demonstrated for the City moving forward to action. (See 2008 First Steps below.)

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Public Workshop, September 10, 2008: RPP and the City hosted a public workshop to vet the draft sustainability concepts with the goal of making them “Guiding Principle” for the City to follow and to create a framework for decision making. (See list of 10 Guiding Principles below.) Workshop participants engaged in an exercise to review, edit and provide comment on the Draft Sustainability Vision (see Vision Statement below). To review the workshop summary please visit Appendix 4.

## Vision Statement

### Vision for a Sustainable City of South Lake Tahoe

Looking back from the year 2028 - **South Lake Tahoe** has become a national story – successful because communities and public agencies made a concerted effort to invite investment that improved the region’s competitive position and image while moving the city toward a more sustainable future. Gateways and places have been enhanced and Highway 50 has been transformed into an interconnected series of pedestrian-oriented mixed-use districts served by efficient and convenient transit and connected to adjacent neighborhoods. South Lake Tahoe has become nationally recognized as a bicycle-friendly community.

**In 2028**, South Lake Tahoe is an exceptional place where the prosperous year-round community thrives in harmony with the natural environment. The overwhelming presence of nature is apparent. The Lake is blue and clear, the air is clean, the ecosystem is healthy, and natural sounds are evident. The City has increased its livability and prosperity, reduced the ecological footprint of its residents and improved human and ecological health by implementing key sustainability strategies. Within communities, the economy is strong and sustainable, the population diverse and vital, and the richness of everyday life is obvious. A vibrant and sustainable regional food system connects fresh, healthy and local food to residents, grocers, casinos and restaurants.

**By 2028**, the City has made significant advances toward sustainability that meets the needs of the present community without comprising the needs of future generations.

**“Equity, Education, and Awareness will be the result of a partnership between the City, local organizations, and community leaders.”**

In 2008-2009, important first steps were taken that resulted in:

- A new city hall that was a model for green building
- A reduction of energy use in City facilities thereby reducing Greenhouse Gas Emissions (GHG) and the City’s carbon footprint.
- Clean transit, including compressed natural gas (CNG) buses and alternative fuels in the bus fleet and emission-free vehicles.

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- An incentive program encouraging City employees as well as community residents to use alternative modes of transportation to get to work including public transit, carpool or bicycle.
  - A recycling action plan that achieved a 55% diversion rate as of 2011.
  - A city-wide plastic bag and styrofoam ban that was phased in over time.
  - Residents and business owners started to buy more local goods and services and reduce their use of energy and resources
  - Local businesses and organizations developing their own sustainability visions and action plans using the City's sustainability implementation plan as a model.
  - The City made annual and quarterly reports to track progress and even started using the sustainability framework to assist in making decisions on projects, programs and policies.
  - The annual report summarized the Sustainability Coordinator's work in monitoring progress, establishing benchmarks, ensuring continued public involvement, and prioritizing future actions and progress.
  - A strategic program for ensuring Equity, Education and Awareness for all community members and visitors.

## Guiding Principles

The City of South Lake Tahoe Plan is founded on 10 Guiding Principles that provide a starting point for sustainable decision-making. The following principles were adapted from past visioning efforts, including Place-based Planning and Regional Visioning, the City's General Plan update and adopted Guiding Principles. The principles were reviewed, edited and revised by the Green City Subcommittee, City Council and staff, the Interim Sustainable City Working Group, and a select group of the community that attended the September 10<sup>th</sup> workshop.

### Summary List of Sustainability Principles

- 1) Green Infrastructure - Efficient
  - a. Reducing Energy and Resource Usage
  - b. Solid Waste Reduction and Recycling
  - c. Water and Waste Water Reduction
- 2) Lake Clarity and Watershed Restoration
- 3) Complete Community
  - a. Strengthened Neighborhoods
  - b. Pedestrian-oriented Mixed-use Centers
  - c. Enhanced Gateways and Places
- 4) Environmentally-Friendly Transportation - Connected
  - a. Pedestrian and Bicycle Improvements



- 
- b. Design “Complete Streets”
  - c. Waterborne Transit
  - d. Transit Efficiency, Service and Convenience
- 5) Vibrant Local and Regional Economy
  - 6) Diverse Housing
  - 7) Forest Health and Recreation
  - 8) Education, Equity and Community Facilities - Aware
  - 9) Healthy Local Food System
  - 10) Green Buildings

## **Sustainability Principles Description**

### **1. GREEN INFRASTRUCTURE - EFFICIENT**

Create comprehensive “green” infrastructure strategies to address sustainability objectives in the supply and management of energy, solid waste and materials, water and waste water.

#### **Reducing Energy and Resource Usage**

- Develop a comprehensive strategy to reduce GHG emissions and climate impacts
- Increase energy efficiency, reduce emissions and support local, clean and renewable energy sources
- Shift away from reliance on non-renewable sources
- Incorporate climate change into general plans

#### **Solid Waste Reduction and Recycling**

- Increase economic efficiency and performance by reducing the consumption of non-renewable resources
- Promote reduction, re-use and recycling
- Divert solid waste from the landfill including household, commercial, construction and site/forest clearing waste to the extent technologically and economically feasible always keeping in mind the cost to consumers
- Implement recycled content and green procurement policies

#### **Water and Waste Water Reduction**

- Use water more efficiently in our homes, businesses and landscapes, and manage runoff that maintain natural hydrological regimes
- Develop an innovative water and waste water management strategy that considers water

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supply and treatment systems

- Reduce demand for potable water through water recycling and reuse of treated water

## 2. LAKE CLARITY AND WATERSHED RESTORATION

Respond to the clarity challenge. Improve stormwater management with green streets and innovative best practices. Move toward area-wide planning and design and work to accelerate urban water quality improvements and environmental threshold implementation.

- Encourage and support the co-location of water quality and recreational amenities as feasible in the City to serve as both public amenities and to provide opportunities for urban water quality improvements
- Respect neighborhood character when planning and implementing water quality improvements
- Develop a stormwater management system to minimize runoff, improve area-wide stormwater retention and reuse
- Improve stormwater quality management by including, along with other proven options, the use of swales and natural treatment systems and integration of runoff into functional design elements and public art
- Investigate green streets as an option for improving water quality and enhancing watershed health
- Explore pervious materials for parking areas and test on some street sections

## 3. COMPLETE COMMUNITY

Develop a complete community that offers its residents the opportunity to work, live, play, shop and learn within a convenient walking or transit distance. Reduce energy, water use and vehicle miles

traveled (VMT) with efficient land use planning.

### **a. Strengthened Neighborhoods**

### **b. Pedestrian-oriented Mixed-use Centers**

### **c. Enhanced Gateways and Places**

- Implement Smart Growth principles to create walkable, mixed-use centers, compact neighborhoods, and enhanced gateways and places
- Promote infill and reinvestment to increase density within walking distance of transit stops
- Protect and restore key riparian areas and natural features

- 
- Commercial uses in community plans should be responsive to the needs and wishes of the community and encourage them to shop locally and reduce VMT
  - Improve connections and access to a wide range of recreational opportunities, which will improve the quality of life of residents and visitors

#### 4. ENVIRONMENTALLY-FRIENDLY TRANSPORTATION - CONNECTED

Reduce dependence on the automobile by providing increased mobility options. Encourage pedestrian/transit-oriented redevelopment to reduce emissions and vehicle miles traveled.

- Improve **bicycle and pedestrian connections** between all neighborhoods and communities with sidewalk and multi-use trail network enhancements
- Design “**complete streets**” that are safe for pedestrians with multiple mobility options in mind
- Create regular/dependable **waterborne transit** for residents and visitors
- Improve **transit efficiency, service and convenience** to encourage use
- Incorporate parking management strategies that strive to create park-once environments, including parking maximums, shared-use parking for mixed-use projects and on-street parking
- Encourage the use of alternative forms of transportation to gasoline powered vehicles including bicycle, pedestrian, electric, and alternative fuel vehicles
- Explore alternative fuels for aviation

#### 5. VIBRANT LOCAL AND REGIONAL ECONOMY

Sustainability recognizes the need for both local and regional economic prosperity and resilience to maintain the health of the community. It encourages self-reliance, entrepreneurial activity and the generation of wealth to occur in a manner that does not undermine the ability of individuals and communities to meet their basic needs.

- Provide economic opportunities that will support an economically diverse and prosperous year-round community for all City residents and stakeholders
- Ensure infrastructure, community facilities and the health of the Lake and forest are improved with new investment and economic growth
- Create live/work and work/live opportunities with flexible buildings and mixed-use zoning that allows local businesses to grow and evolve over time
- Encourage the adoption of green business practices and other systems that enhance both the environmental and economic performance of businesses in the community

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- Become a leader in green building implementation and new emerging technologies for mountain communities
  - Encourage and support programs that help to diversify the local economy by promoting environmentally-friendly business development
  - Develop a “Local First Program” for encouraging and supporting local business

## **6. DIVERSE HOUSING**

Strive to maintain a permanent year-round population that supports community services, social equity and economic vitality in the City.

- Provide diverse high-quality housing that meets identified needs in the City’s adopted General Plan
- Offer a wide range of diverse and high-quality housing opportunities, both ownership and rental, for all income levels
- Integrate green and sustainable construction into new housing units, neighborhoods and mixed-use centers

## **7. FOREST HEALTH AND RECREATION**

The City of South Lake Tahoe is blessed with its natural surroundings, access to wilderness and the Lake. Forest management and trail facility upgrades improve access and the opportunity to recreate while minimizing environmental impacts.

- Improve forest health to reduce the risk of catastrophic wildfire
- Connect surrounding forests to urban open spaces, parks, natural areas and SEZs to encourage biodiversity and healthy habitat
- Design into Lakeview Commons a central gathering place with passive and active recreational opportunities
- Maximize the use of native plants in landscaping
- Create management zones that help to minimize use of irrigation and pesticides
- Incorporate recycled gray water and roof water as a “purple pipe” system for irrigation where appropriate

## **8. EDUCATION, EQUITY AND COMMUNITY FACILITIES - AWARE**

Provide community facilities that support a healthy lifestyle for both residents and visitors. Create a public education, awareness and capacity building program that includes social equity as an important component of the plan.

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- Create a vibrant social community that promotes safety and encourages residents to meet
  - Develop a strategy to provide amenities and facilities that supports quality of life for all ages groups
  - As the City is currently spread out, locate facilities within proximity to public transit and surrounding neighborhoods
  - Identify action items for residents and businesses that improve energy efficiency and reduce environmental impact
  - Social equity is important when dealing with sustainability issues because successful implementation is all about making appropriate choices and having the opportunity and ability to make those choices

## 9. **HEALTHY FOOD SYSTEM - LOCAL**

Climate and elevation make local food production a challenge. Work toward a vibrant and sustainable regional food system that connects fresh, healthy and local food (100 to 150 miles) to residents, grocers, casinos and restaurants. Encourage the development of markets and restaurants within convenient distances of all residents to reduce driving, increase local economic activity, and increase quality of life.

- Look at a regional food network as an economic development tool to build health and wealth
- Provide assistance to connect food establishments with consumers and producers
- Encourage locally owned and ecologically sound storage and distribution infrastructure
- Design a permanent year-round public market in the City to serve as a community gathering place
- Encourage gardening in neighborhoods with good soils, access to water and sunlight
- Encourage organic food supply

## 10. **GREEN BUILDINGS**

New buildings are long-term investments and should feature quality design/materials, flexible design to deal with changing demands and be built green. Develop a green building strategy to encourage redevelopment, compact neighborhoods, mixed-use centers and address: energy efficiency; solar design; indoor air quality; green roofs; water efficient fixtures; etc...

- Incorporate energy efficiency in city buildings and facilities
- Provide clear incentives for green buildings and consider phasing in the green rating system or LEED certification

- 
- Establish a green demonstration program for a variety of building types including single family, commercial industrial, townhouses, apartments, and mixed-use projects
  - Support programs that encourage private property owners to retrofit their homes to save energy and reduce the carbon footprint
  - Reduce energy use in all buildings including residential, commercial and industrial properties

## Existing Projects and Programs

### Local Projects and Programs

- California Tahoe Conservancy and City Partnership
- City Smart Growth Principles
- City-Wide Waste Reduction and Recycling Program
- City of South Lake Tahoe General Plan Update
- City of South Lake Tahoe Sustainability Goals and Policies
- League of California Cities Environmental Policy Committee Participation
- LEED-certified City Joint Use Building/Emergency Operations Center
- California Conservation Corps Base Center
- Stormwater Master Plan
- Bijou Area Erosion Control Plan
- Residential Green Buildings Built by Local Builders
- BlueGo Service Restructuring
- Maximized use of Alternative Fuel Vehicles
- Biodeisel Fuel Availability in the City
- South Tahoe High School Green Academy
- Lake Tahoe Community College “Green” Courses
- Chamber Green Business Program and EcoTourism
- 968 Park Hotel: Green EcoHotel
- Lakeview Commons Project
- CSLT Bicycle-Friendly Community Designation
- Improved Mass Transit with Increased Bicycle Storage Capacity
- Education/Community Outreach: TREE
- Community Land Trust: Diverse and Affordable Housing
- Voluntary Business and Residential Retrofit Program

### Local and Regional Utilities

- LEED-certified South Lake Tahoe Public Utility District Office

- 
- South Tahoe Refuse (LEED-certified resource and recovery facility)
  - Sierra Pacific Renewable Energy Programs and Incentives
  - Southwest Gas Corporation Programs

### Regional Projects and Programs

- Environmental Improvement Program (EIP)
- California Tahoe Conservancy: Urban Lot Mgmt Program
- Community Enhancement Program (CEP)
- U.S. Forest Service, Lake Tahoe Basin Management Unit Urban Lot Management Program
- TRPA Initial Parcel Evaluation System (IPES)
- TRPA Regional Transportation Plan: Mobility 2030
- Regional Plan Update
- Sustainable Green Building Chapter (SiGBA)

### Six Adopted Next Steps

On August 15, 2008 the City of South Lake Tahoe City Council unanimously adopted the following Six Next Steps toward Sustainability, which were also identified by the Green Cities Committee/Interim Sustainability Working Group:

#### GREEN INFRASTRUCTURE--ENERGY REDUCTION:

Reduce Green House Gas Emissions (GHG) and the City's Carbon Footprint by reducing energy use in City facilities 15% by 2012. The City will complete an energy audit and develop an action plan that will accomplish this goal.

#### GREEN BUILDING:

Commit to establishing a new green building program and standards for City projects. including requirements to meet or exceed the U.S. Green Building Council's LEED rating or use the Build It Green scoring system.

#### ENVIRONMENTALLY-FRIENDLY TRANSIT:

Move toward clean transit, including compressed natural gas (CNG) buses and alternative fuels in the bus fleet. The City also will create an incentive program to encourage City employees to use alternative modes of transportation to get to work including public transit, carpool or bicycle.

#### GREEN INFRASTRUCTURE-WASTE REDUCTION & RECYCLING:

Develop a recycling action plan to achieve a 55% diversion rate by 2011. By requiring recycling containers in all city buildings the City will lead by example; Recycle and conserve.

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**GREEN INFRASTRUCTURE--WASTE REDUCTION & RECYCLING/ENERGY REDUCTION:**  
Investigate and discuss with the business community by June 2009 and return to City Council with a program designed to reduce the use of plastic bags and Styrofoam in the City of South Lake Tahoe.

**HOST A SEPTEMBER 10, 2008 SUSTAINABILITY PUBLIC WORKSHOP:**  
Host an additional public workshop to review the Draft Sustainability Vision and explore opportunities for partnering, collaboration and innovation.

### **Sustainability Plan Next Steps**

- Hire a Sustainability Coordinator
- Prepare Strategies for Sustainability
  - o Strategies for Sustainability Work Session with staff
  - o Identify partnerships for implementation
  - o Develop an education and outreach program
  - o Prepare Phase II Report
- Optional tasks tied to funding related to climate change
  - o Greenhouse Gas Emissions in South Lake Tahoe
    - Outline Community Benefits
    - GHG Emissions Inventory and Mapping
    - GHG Emissions Reduction Target
    - GHG Reduction Approach
  - o Greenhouse Gas Emissions Reduction Measures
    - Proposed Measures
    - Measure Evaluation
    - Measure Feasibility