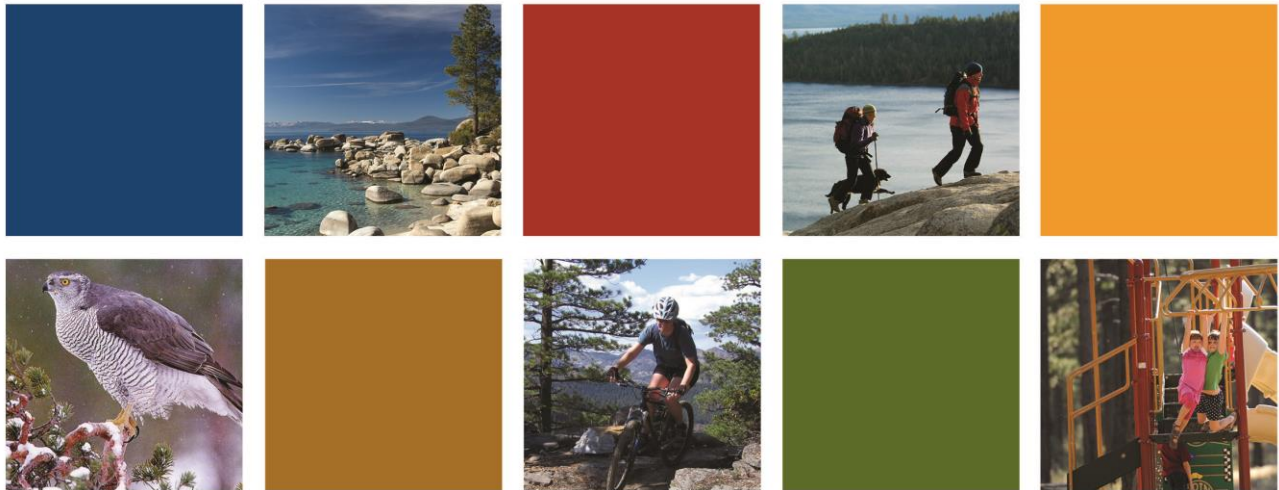


Lake Tahoe Sustainable Communities Program Documents Series #1

Sustainability Framework and Vision

October 2013



Lake Tahoe
Sustainable Communities Program

California Strategic Growth Council

The work upon which this publication is based was funded in whole or in part through a grant awarded by the Strategic Growth Council.

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Acknowledgements

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The Tahoe Metropolitan Planning Organization (TMPO) Governing Board is comprised of the members of the Tahoe Regional Planning Agency (TRPA) Governing Board and one representative of the US Forest Service. The TRPA staff serves both the TMPO and TRPA. The TRPA Governing Board is responsible for adopting the Lake Tahoe Regional Plan and Code of Ordinances. The TMPO Governing Board is responsible for adopting the Regional Transportation Plan and Sustainable Communities Strategy.

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This citizens group is responsible for sustainability planning recommendations, projects, and programs . More information is available at www.sustainabilitycollaborative.org.

Tahoe Basin Partnership for Sustainable Communities

This group, comprised of representatives from the Tahoe Regional Planning Agency, Tahoe Metropolitan Planning Organization, California Tahoe Conservancy, El Dorado County, Placer County, City of South Lake Tahoe, North Lake Tahoe Resort Association, and Sierra Nevada Alliance, was responsible for preparing the original SGC Round 1 Sustainable Community Planning Grant application and has provided ongoing support for completion of these SGC grant-funded tasks.

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Introduction to the Lake Tahoe Sustainable Communities Program

The need to embrace sustainability in all planning and implementation activities in the Lake Tahoe Region and beyond has been recognized in a number of ways. At the national level, the Department of Housing and Urban Development has created the Sustainable Communities Regional Planning Grant Program and the Department of Interior Bureau of Reclamation has initiated the Truckee River Basin Study that will include adaptive strategies to respond to climate change and other uncertainties. At the state level, California has adopted the Sustainable Communities and Climate Protection Act of 2008 requiring greenhouse gas emission reduction targets for passenger vehicles for 2020 and 2035 for each region covered by a metropolitan planning organization (MPO) and created the Strategic Growth Council, which has awarded grants for sustainable community planning and natural resource conservation. At the Lake Tahoe Region level, the Tahoe Regional Planning Agency (TRPA) has updated the Lake Tahoe Regional Plan to include sustainability policies and mitigation measures, and the Tahoe Metropolitan Planning Organization (TMPO) has adopted a Sustainable Communities Strategy as required by the Sustainable Communities and Climate Protection Act of 2008. At the local level, local governments in the Lake Tahoe Region are in the process of integrating sustainability principles into their local plans.

In the summer of 2010, a partnership of agencies, organizations, and jurisdictions came together as “The Tahoe Basin Partnership for Sustainable Communities” in order to apply for a grant from the Strategic Growth Council. Collectively, the Partnership is supporting execution of the Strategic Growth Council 2011 Sustainable Communities Planning Grant that was officially awarded to the TMPO in August of 2011. The Partnership is comprised of Tahoe Metropolitan Planning Organization, Tahoe Regional Planning Agency, El Dorado County, Placer County, City of South Lake Tahoe, California Tahoe Conservancy, and Sierra Nevada Alliance.

The TRPA, in partnership with other key stakeholders in the Lake Tahoe Region, is a participant in all of these national, state, regional and local efforts. Often they are complementary and of common interest to stakeholders. Hence, the Lake Tahoe Sustainable Communities Program has been created as a Basin-wide program with staff from different agencies and organizations participating in the various efforts. To the extent possible, the products from these efforts will be available through the Lake Tahoe Sustainable Communities Program website and as a series of documents.

Lake Tahoe Sustainable Communities Program Documents Series

This series of documents is organized to generally reflect the tasks associated with the grants received from the California Strategic Growth Council (SGC). The series as currently envisioned includes the following:

1. **Sustainability Framework and Vision** – This document; it accompanies the California Tahoe Conservancy *Tahoe Basin Sustainability Planning Guidebook* document (Appendix A) and includes an overview of the Sustainable Communities Program, the framework within which all of the regional and local level plans work, and the vision for sustainability based on input from over 5,000 participants in the regional planning process. The *Tahoe Basin Sustainability Planning Guidebook* was prepared in 2011 and describes how this effort was originally envisioned. The Sustainability Framework and Vision has more detailed and updated language related to the

newly adopted Regional Plan and the framework for Area Plans, input from participants in that process, and the interaction of sustainability components. This serves as the “deliverable” for the SGC Round 1 Sustainable Community Planning Grant Task 1: Roadmap & Organizational Structure.

2. **Sustainability Action Plan Background** – This document includes the initial greenhouse gas emissions inventory and reduction targets, and climate change adaptation and mitigation strategies. It reflects the adopted Regional Plan, Regional Transportation Plan, and Sustainable Communities Strategy policies, and is the basis for the sustainability (a.k.a., climate change) action plan. This document serves as the “deliverable” for the SGC Round 1 Sustainable Community Planning Grant Task 3: Goals, Objectives, & Strategies.
3. **Sustainability Action Plan: A Sustainability Action Toolkit for Lake Tahoe** – This includes the revised greenhouse gas emissions inventory and reduction targets, and climate change and adaptation strategies vetted through the Lake Tahoe Sustainability Collaborative and the Tahoe Basin Partnership for Sustainable Communities. This document also includes community level outreach and action strategies. This document serves as the “deliverables” for the SGC Round 1 Sustainable Community Planning Grant Tasks 3.D, 4.A, and 4.D: Lake Tahoe Sustainability Action Plan and Outreach Activities.
4. **Sustainability Indicators Reporting Plan**– This includes: (1) an assessment of existing Lake Tahoe Region measurement and monitoring efforts, (2) identification of a suite of sustainability indicators, (3) development of a sustainability metrics reporting plan, and (4) initiation of a sustainability dashboard. This measurement and tracking approach is intended to be consistent with and a key element of the larger Lake Tahoe Basin Monitoring, Evaluation, and Reporting Program required by California State Appropriations Bill #3110-0140 in addition to serving as the ‘deliverables’ for SGC Round 1 Task 4.B: Develop Performance Measures, Indicators and Monitoring Program, including a Tracking and Accounting System and SGC Round 2 Task 4.A: Obtain Regional Indicators Data.
5. **Area Plans Framework** – This includes the framework for Area Plans and initiation of those Area Plans. The framework (i.e., Regional Plan policies and code, conformance review checklist, and model Area Plan contents) serves as the “deliverable” for SGC Round 1 Sustainable Community Planning Grant Task 4, Subtask C: Lake Tahoe Livable Communities Program.
6. **Area Plans Background** – This includes an assessment of the sustainability and livability measures needed in each planning area and the barriers to local implementation of those sustainability measures. This document serves as the “deliverable” for the SGC Round 1 Sustainable Community Planning Grant Task 2: Situation Assessments.
7. **Development Commodities Transfer Policies Analysis** – This includes identification and analysis of the potential market effectiveness of proposed transfer of development rights and bonus unit policies considered for inclusion in the Regional Plan. This serves as the “deliverable” for the SGC Round 1 Sustainable Community Planning Grant Task 4, Subtask E: Development Rights Incentives Program.
8. **Development Commodities Tracking and Exchange System** – This includes the concepts, processes, software requirements, and other system specifications, as well as the results of implementing the development commodities and exchange system. This serves as the “deliverable” for the SGC Round 2 Sustainable Community Planning Grant Task 3: Regional Development Rights Tracking System.

9. **Economic Development Strategy** – This includes analysis of existing and targeted industry clusters and recommendations on the clusters and incentives that will be most effective in creating and maintaining a sustainable economy for the Lake Tahoe Region. Also included is stakeholder outreach resulting in recommendations for implementation of commodities transfer policies. This serves as the “deliverable” for the SGC Round 1 Sustainable Community Planning Grant Task 4, Subtask F: Economic Incentives Strategy.
10. **Lake Tahoe Sustainability Collaborative Strategic Plan** – This document includes the LTSC’s mission, charter, and business plan which provides the strategy for the Lake Tahoe Sustainability Collaborative to continue, on an ongoing basis, to act as an independent entity that “champions” sustainability in the Lake Tahoe Region. This serves as the “deliverables” for the SGC Round 1 Sustainable Community Planning Grant Task 1.B: Establish Lake Tahoe Sustainability Collaborative and SGC Round 2, Task 4.E: Lake Tahoe Sustainability Collaborative Support.
11. **Annual Report** – This is the initial annual report on the Lake Tahoe Sustainable Communities Program and will be included as part of future TRPA annual reports. It will be updated using current sustainability indicators data, and can act as a template for similar sustainability planning reports in other regions. This serves as the “deliverables” for the SGC Round 2 Sustainable Community Planning Grant Tasks 4.B: Implement Regional Data Sharing/Management Program, 4.C: Web-Based Dashboard Implementation and 4.D: Prepare and Publish Final Tahoe Annual Report.
12. **Lake Tahoe Sustainable Communities Program Summary** - Other documents that are an integral part of the sustainability efforts in the Lake Tahoe Region include the Lake Tahoe Regional Plan, Regional Transportation Plan and Sustainable Communities Strategy, and various local government Area Plans. This document provides a summary of these plans, the products described in previous reports in this series, and how they work together within the Sustainability Framework for the Lake Tahoe Region. This serves as the “deliverable” for the SGC Round 2 Sustainable Community Planning Grant Task 2: SB375 Local Planning and Implementation Tool-Kit.

While providing valuable information about the Lake Tahoe Sustainable Communities Program to Lake Tahoe Region stakeholders, this series is also designed to provide a reference for other regions involved in addressing the critical issue of sustainability.

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Sustainability Framework

The Lake Tahoe Region is subject to a unique bi-state compact approved by California and Nevada, and ratified by the United States Congress. The regional and local (i.e., area) level plans that are enabled and required by this legislation (i.e., formal plans) are two of the four main components of the sustainability framework. The other two main components of the framework, Sustainability Action Plan and Related Plans and Projects, are not required (i.e., informal, often non-regulatory mechanisms). These four components, how they interact, and how stakeholders are involved to create the sustainability framework are described below.

Sustainability Framework Components

The four components of the sustainability framework are as follows.

- **Regional Plan** – the Lake Tahoe Regional Plan adopted as required by the Tahoe Regional Planning Compact (P.L. 96-551). It includes goals and policies, the regional transportation plan and sustainable communities strategy, the water quality management plan, the final EIS mitigation measures and Code of Ordinances.
- **Area Plans** – city and county plans adopted pursuant to California Planning and Zoning Law (Government Code 65000-66037) or Nevada Revised Statutes Chapter 278, and found in conformance with the Regional Plan.
- **Sustainability Action Plan (a.k.a., Climate Action Plan)** – recommendations evaluated by the Collaborative and provided to stakeholders to act upon to address greenhouse gas reduction, climate change mitigation and adaptation, and sustainability.
- **Related Plans and Projects** – plan recommendations, projects, and programs initiated and/or advocated by other parties (e.g., Bureau of Reclamation recommendations on sustainability from the Truckee River Basin Study, Forest Service sustainability policies in the Forest Plan, Lake Tahoe Basin Prosperity Plan economic development policies, etc.).

Interaction of Sustainability Framework Components

The formal plans (i.e., Regional Plan and Area Plans) have very well-defined processes and procedures for preparation, adoption, and amendment. These processes and how they interact are shown on the following graphic.

The Regional Plan must address certain topics, must be updated periodically, is subject to environmental review and mitigation, and these changes must be made through formal public processes. These requirements are well defined in the Bi-State Compact, the Regional Plan policies, the Code of Ordinances, and applicable environmental impact mitigation measures. In accord with the Regional Plan implementation policies, the TRPA Governing Board annually reviews monitoring data, reports, and other information to establish priorities for updating the Regional Plan. In addition, there is a time frame for completion of environmental mitigation measures. This annual regional level process is depicted by the top loop in the diagram below. The Regional Plan includes many sustainability measures (see Sustainability Action Plan Background document which is part of the Lake Tahoe Sustainable Communities Document Series). Additional measures can be recommended for inclusion in the Regional Plan through this ongoing process and public meetings.

The Regional Plan and Code of Ordinances also establish the framework for Area Plans and associated code to be created and maintained by local jurisdictions in the Lake Tahoe Region (see Area Plan

Framework document which is part of the Lake Tahoe Sustainable Communities Document Series). As the middle loop on the following graphic shows, an amendment to the Regional Plan or Code of Ordinances may require an amendment to an Area Plan and/or associated code. The Regional Plan allows a one-year period for this to occur (bottom loop). Once adopted and found to be in conformance with the Regional Plan, the Area Plan and/or code become part of the Regional Plan and/or Code of Ordinances.



Like the Regional Plan, the Area Plans are reviewed on an ongoing basis. In some cases the appropriate local government may decide it is necessary to amend an Area Plan. This is completed through well-defined processes and procedures as dictated by the Bi-State Compact and either California Planning and Zoning Law or Nevada Revised Statutes. These processes include publicly noticed meetings of the

local government planning commission and governing body, as well as other meetings determined by that local government. Additional sustainability measures can be recommended for inclusion in Area Plans through this ongoing process and public meetings.

The Sustainability Action Plan prepared independently of the Regional Plan and Area Plans, addresses greenhouse gas emissions reduction, as well as climate change mitigation and adaptation strategies. As this plan is prepared and updated, recommendations for sustainability measures that can be included in the Regional Plan or Area Plans may be identified. These recommendations can be made through the ongoing Regional Plan and Area Plan processes, and also may inform Related Plans and Projects.

Related Plans and Projects include all plans that address environmental sustainability (e.g., Truckee Basin Study, Forest Plan, etc.), economic sustainability (e.g., Lake Tahoe Basin Prosperity Plan), and community sustainability. Sustainability projects include projects and programs identified in these plans, as well as those conceived and advocated by one or more stakeholder groups in the Region. Related Plans and Projects may be incorporated into the Regional Plan or an Area Plan through those respective ongoing planning processes, and also may inform the Sustainability Action Plan.

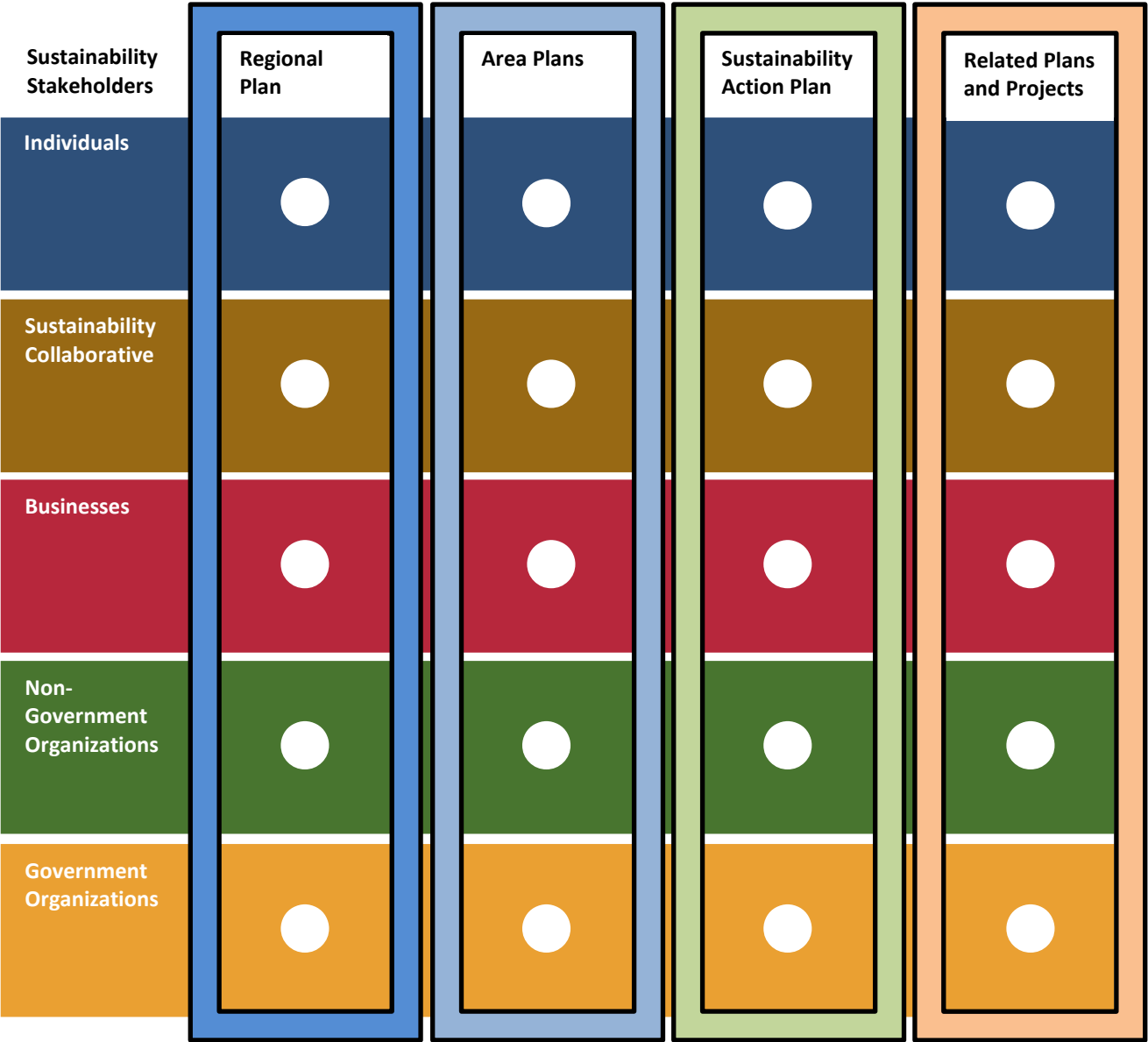
Stakeholder Involvement

This graphic on the next page depicts the full range of options for stakeholder groups to be involved in the components of the sustainability framework. This framework recognizes that achieving sustainability will require an unprecedented level of collaboration between regional and local, formal and informal, and public and private efforts.

The following examples better illustrate this concept:

- **Greenhouse Gas Reductions from New Buildings** – The Regional Plan Environmental Impact Statement identified the need to mitigate the potential increase in greenhouse gas emissions from new buildings. The greenhouse gas emissions inventory, which is an important source of background information for the Sustainability Action Plan, indicates that the third largest source of greenhouse gas emissions in the Lake Tahoe Basin is from fuel combustion to heat buildings. By establishing minimum energy efficiency standards for new buildings in the Lake Tahoe Basin, the necessary mitigation measure will be put into effect through Area Plans and part of the desired reduction in greenhouse emissions identified in the Sustainability Action Plan will be achieved. This is part of both formal (Area Plan) and informal (Sustainability Action Plan) planning efforts, and involves a number of stakeholder groups ranging from individuals (e.g., homeowners) to government organizations (e.g., local government building officials).
- **Development Commodities Policies** – The changes in policies related to transfer and conversion of development commodities are of interest to a number of stakeholders including businesses, non-government organizations, and government organizations. Through the Tahoe Prosperity Center, all three of these stakeholder groups are meeting together to address these policies. The results will be important for both informal planning efforts (Sustainability Action Plan economic development incentives strategies and implementation of the Tahoe Basin Plan for Prosperity) and in formal planning efforts (Regional Plan pilot tourist accommodation conversion policy and possible new policies).

This sustainability framework, which recognizes and embraces plans and projects that in the past may have been viewed as unrelated or conflicting, represents a change in the planning and implementation paradigm necessary for the Lake Tahoe Region to successfully pursue sustainability.



Sustainability Vision

Stakeholder Involvement Processes

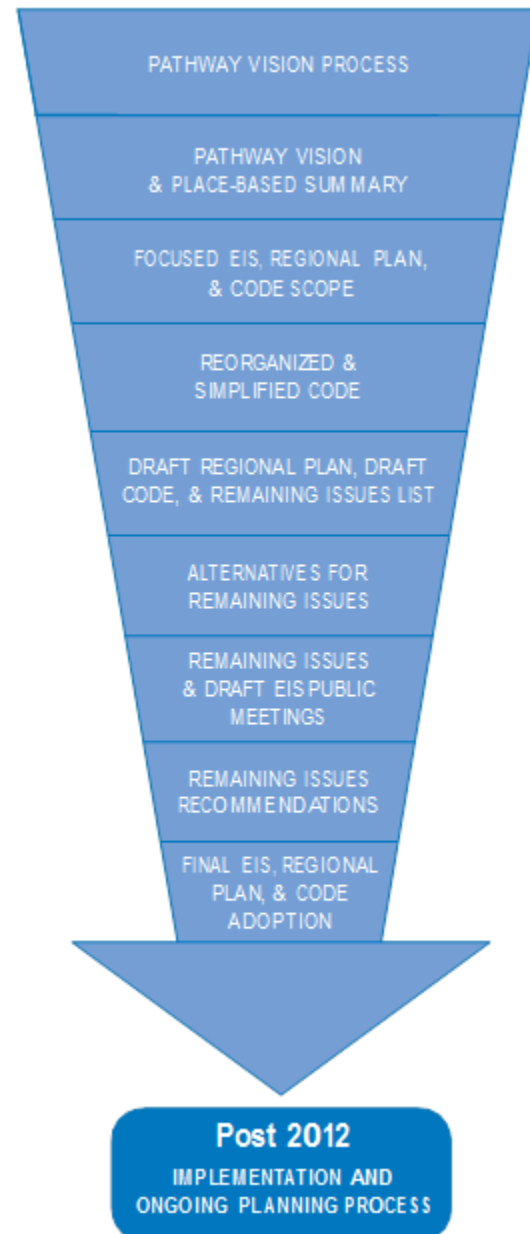
The vision for the Lake Tahoe Region, including many sustainability measures, has evolved over a ten- year period starting in 2003. This process has involved more than 5,000 stakeholders in multiple venues.

The process culminated in December 2012 with the adoption of the Lake Tahoe Regional Plan, Regional Transportation Plan and Sustainable Communities Strategy, and Lake Tahoe Water Quality Management Plan. In addition associated amendments to the Code of Ordinances and Final Environmental Impact Statement mitigation measures were approved.

The Pathway Vision Process involved over 4,500 participants between 2003 and 2007. In 2007 the TRPA Governing Board endorsed the Pathway vision and summary. This process resulted in the identification of progressively more refined regional and area plan level vision statements.

The vision statements for the region and each area included many sustainability provisions. The regional level statements were incorporated into the Regional Plan, Regional Transportation Plan and Sustainable Communities Strategy in the form of Goals and Policies. The sustainability vision statements for the region and local areas are adapted from the October 9, 2012 memo from AECOM (Appendix B) and are listed below

With the approval of the Regional Plan and the sustainability measures included in those plans, the process for stakeholder involvement in sustainability planning efforts shifted at both the regional and local area levels.



At the regional level, stakeholders may participate directly in the preparation of the Sustainability Action Plan by participating in the Lake Tahoe Sustainability Collaborative. The recommendations from the Sustainability Collaborative and Sustainability Action Plan may then be used to influence the TRPA regional planning process. Stakeholders can also engage directly through the ongoing TRPA planning process. As described in the Sustainability Framework section above, local governments are responsible for preparing area plans that are consistent with the adopted Regional Plan. Stakeholders may also engage directly in those processes and advocate for inclusion of sustainability measures at the local area level.

Vision Statements

The Pathway planning principles, in combination with the federal livability principles and concepts embedded in local plans, were used to create both regional vision statements and local variations based on the unique characteristics and concerns of communities within the Region.

While the vision statements for the Lake Tahoe Region reflect the unique characteristics of the region and its priorities, they also align with state and federal guidance for environmental, community and economic development, housing, and transportation planning programs that seek to improve quality of life, environmental performance, and economic vitality. The vision statements also address increasing long-term resilience of natural and built environments in the Basin in the face of climate change. The following regional and local vision statements are based on the expressed community priorities and policy guidance contained in the Regional Plan, and serve as the vision for sustainability efforts in the region.

- **Regional Sustainability Vision**
 - Diverse natural ecosystems, and other resources in the Lake Tahoe Region and its communities that maintain a healthy balance between human (built) and natural environments that make the Region a unique and special place.
 - A sense of community that maintains the richness of everyday life by preserving the historical, architectural, and cultural identity of the community that is linked to the Region's environmental values, creating public spaces for social gathering and interaction, and improving the distribution of community and social services through regional municipal collaboration and cooperation.
 - Enhanced recreational opportunities and choices that take advantage of the Region's unique natural beauty while protecting it for future generations, providing easy access to the Lake and other regional destinations, and offering multiple options for all community members to be physically active.
 - Diverse housing / lodging choices that meet the needs of residents, workers, and visitors of all physical and economic abilities and that recognize the seasonal, visitor-oriented nature of many businesses in the Basin.
 - A connected multimodal transportation network that increases travel choices within, to, and from the Region that reduce traffic congestion, lower household transportation costs, and encourage walking and biking to local destinations by residents, workers, and visitors.
 - A vital regional and local economy that balances the needs of commercial and residential areas, building on local visitor attractions, maintaining Lake Tahoe as an exceptional place where communities thrive in harmony with the natural environment,

promoting greater renewable energy use; and better integrating Tahoe into a larger regional economy and locally grown food sources that include Truckee, Reno, and Carson City.

- A high quality of life with improved public health, education, and job opportunities; enhanced social wellbeing and economic equity in Lake Tahoe's communities; and greater economic and ecological resiliency in the Tahoe Region through energy, water, and other natural resources conservation.

- **South Lake Tahoe Sustainability Vision**

- Diverse natural ecosystems and other resources in South Lake Tahoe and improved Lake water clarity to maintain a healthy balance between human (built) and natural environments that make the Basin a unique and special place.
- A sense of community that enhances the Highway 50 corridor as the heart of the community by creating an interconnected series of compact mixed-use districts that serve the needs of residents and visitors.
- Enhanced recreational opportunities and choices that attract nature lovers, sport enthusiasts, and families through numerous recreation and lodging options, ecotourism destinations, and multiple businesses that highlight the natural and cultural environment of South Lake Tahoe.
- Diverse housing and lodging choices that meet the needs of residents, workers, and visitors of all physical and economic abilities that recognize the seasonal, visitor-oriented nature of many businesses, preserve and enhance the existing supply of housing, and provide a sustainable and walkable environment in proximity to local businesses, services, and neighborhood centers.
- A connected transportation network with Highway 50 as a multi-modal corridor that provides diverse options for convenient travel within the City, to surrounding communities, and regionally; walking and biking to local destinations; and transit centers that also serve as social gathering places.
- A vital local economy with a transformed Highway 50 corridor and public-private cooperation that has created a prosperous and healthy region; diverse locally-owned businesses that offer good wages, services, and amenities to the community and visitors; and an economic base driven by creative, environmentally-sound, and “green” businesses.
- A high quality of life with improved public health, fire-safe open spaces and built environment, education, and job opportunities, and enhanced social well-being of South Lake Tahoe residents and workers.

- **Tahoe City Sustainability Vision**

- Stream Zone, lakeshore, and other natural environments that maintain a healthy balance between humans and nature, provide scenic corridors and vistas that make the Basin a unique and special place, and provide opportunities for residents and visitors to enjoy natural settings.

- A sense of community and place based on Tahoe City's status as the oldest community in the Region that preserves its diverse architecture and cultural identity, provides a scenic, unifying character in harmony with nature, open vistas and unique landscapes, and public gathering spaces for social interaction focused on the lakeshore.
- Enhanced recreational opportunities and choices for the permanent population and visitors based on Tahoe City's location at the headwaters of the Truckee River, easy access to the Lake, recreational activities integrated into the community, and multiple options for all community members to be physically active.
- Diverse housing and lodging choices that meet the needs of residents, workers, and visitors of all physical and economic abilities and that recognize the seasonal, visitor-oriented nature of many businesses in Tahoe City.
- A connected multimodal transportation network with increased travel choices within Tahoe City and surrounding communities, including a well-connected trail system and improved water and land transit that reduce traffic congestion, lower household transportation costs, and provide more opportunities for walking and biking by residents, workers, and visitors.
- A vital local economy with waterfront redevelopment / revitalization along the lakefront and the Truckee River that promotes economic development, improves access, enhances viewsheds, and maintains the lake as an exceptional place where Tahoe City can thrive in harmony with the natural environment.
- A high quality of life with improved public health, education, and job opportunities and enhanced social wellbeing of Tahoe City residents.
- **Meyers Sustainability Vision**
 - Diverse natural ecosystems and other resources in the Meyers area that maintain a healthy balance between human (built) and natural environments, and connect the community to surrounding natural areas that make Meyers a unique and special place.
 - A sense of community and appreciation of history as the southern gateway to the Region and Pony Express way station that preserves Meyers historical, architectural, and cultural identity; recognizes its environmental and recreation values, and creates linkages to public spaces for social gathering and interaction on both sides of Highway 50.
 - Enhanced recreational opportunities that take advantage of surrounding spectacular mountain vistas while protecting it for future generations, foster an outdoors community ethic that thrives in harmony with the natural environment, and provide easy access to area recreation amenities that offer multiple options for all Meyers residents to be physically active.
 - Diverse housing and lodging choices that meet the needs of residents, workers, and visitors of all physical and economic abilities that recognize the seasonal, visitor-oriented nature of many businesses, preserve and enhance the existing supply of housing, and provide a sustainable and walkable environment in proximity to local businesses, services, and neighborhood centers.
 - A safe, connected multimodal transportation network with increased travel choices that connect both sides of Meyers, reduce traffic speeds through the community, lower

household transportation costs, and encourage walking and biking to local destinations by residents, workers, and visitors.

- A vital local economy that balances the needs of commercial and residential areas, builds upon the sense of community by business owners, and promotes south shore visitor attractions, many opportunities to access nearby outdoor recreation, and the upper Truckee River.
- A high quality of life with enhanced public health, education, mountain culture, job opportunities, and social well-being of Lake Tahoe's communities.

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Appendixes

- A. Tahoe Basin Sustainability Planning Guidebook**
- B. Tahoe Livable Community Health, Impact, and Livability Assessment
Product Definition**

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Tahoe Basin Sustainability Planning Guidebook

California Tahoe Conservancy Sustainability Project

- Final Version
- December 23, 2011



The Tahoe Basin Sustainability Planning Guidebook was funded by the California Tahoe Conservancy and developed by Environmental Incentives, LLC. The Tahoe Basin Sustainability Planning Guidebook builds on the Tahoe Basin Climate Planning Framework developed through the Tahoe Basin Climate Change Adaptation Strategy project funded by the U.S. Army Corps of Engineers.

The California Tahoe Conservancy, Sierra Nevada Alliance, Tahoe Metropolitan Planning Organization and Tahoe Prosperity Center provided feedback on the Tahoe Basin Sustainability Planning Guidebook. In addition, a Working Group was established to provide guidance and feedback on the products developed through the Tahoe Basin Climate Change Adaptation Strategy project, including the Tahoe Basin Climate Planning Framework. Agencies represented in the Working Group include California Tahoe Conservancy, Lahontan Regional Water Quality Control Board, Lake Tahoe Basin Management Unit, Nevada Division of Environmental Protection, Tahoe Metropolitan Planning Organization, Tahoe Regional Planning Agency, Tahoe Science Consortium, Tahoe Transportation District, U.S. Environmental Protection Agency and U.S. Army Corp of Engineers.

Sustainability Terms

The first use of a term in this report that is in the glossary is italicized and the definition is in the Key Terms text box on the right side of the page. Refer to the glossary in Appendix II for a complete list of definitions.

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Sustainability Planning Introduction

In many ways, the Tahoe Basin is a region stuck in time. The 1987 Regional Plan stopped uncontrolled development that damaged sensitive ecosystems but also froze in time the Tahoe Basin's automobile-centric development and disconnected communities of the 1960's. Today, the Lake, the economy and local communities are all suffering from the impacts of the aging and inefficient land use and transportation infrastructure. Robust science indicates that urban areas are the source of more than 70 percent of the pollutants that impair the clarity of Lake Tahoe, and Tahoe's economy began to decline long before the current recession as illustrated by the 15 percent drop in the basin's population since 2000.

At the same time, the Tahoe Basin is also a region in transition. Climate monitoring has indicated mean temperatures have increased, snowpack has decreased and ranges of plants and animals have shifted. *Climate change* models project continued increases in temperatures which are expected to result in increased *risk* of drought, flooding, forest fires and other *impacts* to natural, built and human *systems*. Climatic changes will also impact the community and economy which are highly dependent on environmental resources such as snow packs that support the ski industry and a clear Lake Tahoe that drives the eco-tourism industry. In addition, the casino-driven economy of the past is not creating the economic opportunities needed for economic prosperous and sustainable communities. It is therefore imperative that communities immediately invest in understanding how to improve the resiliency of their environment, economy and communities.

As a member of the global society, it is also our community's responsibility to reduce local global greenhouse gas (GHG) emissions to minimize future climate change impacts to natural, built and human systems. Global reductions will not be realized unless communities throughout the world change current operations and begin GHG emission *mitigation* immediately. Auspiciously, many GHG emission mitigation measures provide economic and community benefits, such as cost-savings related to reducing energy consumption and health benefits from mixed-model transportation systems.

Transforming the Tahoe Basin to sustainability is also a federal and state priority. U.S. federal and state legislation provide regulatory drivers as well as funding sources for entities in the Tahoe Basin to increase the sustainability of the region. Table 1 contains a list of U.S. federal and state legislation driving sustainability in the Tahoe Basin and additional federal and state legislation is expected.

Key Terms

Adaptation: Adjustment in natural or human systems in response to actual or expected system drivers, such as climate change, or their effects, to minimize harm or exploits beneficial opportunities.

Climate Change: Any long-term change in average climate conditions in a place or region, weather due to natural causes or as a result of human activity.

Impacts: The detrimental and beneficial effects of climate change on the structure or function of a system.

Mitigation: A human intervention to reduce the sources or improve the uptake (sinks) of greenhouse gases.

Resiliency: The ability of a system to absorb some amount of change, including shocks from extreme events, and recover from them to be able to function and provide essential services and amenities that it has evolved or been designed to provide.

Risk: The possibility of interaction of physically defined hazards with the exposed systems. Risk combines the likelihood of an event and its consequences.

Systems: The built, natural and human networks that provide important services or activities.

Sustainability: Improving the quality of human life while living within the carrying capacity of supporting ecosystems.

BILL	TITLE	DESCRIPTION	PASSAGE DATE
AB 32 (Nunez)	Global Warming Solutions Act	The California Air Resources Board (ARB) is responsible for monitoring and reducing GHG emissions to 1990 levels by 2020	August 2006
SB 97 (Dutton)	CEQA Guidelines for GHGs	California state's Office of Planning and Research will develop CEQA guidelines for mitigating GHG emissions or the effects of GHG emissions, which the Natural Resources Agency will certify and adopt the guidelines	August 2007
SB 375 (Steinberg)	Redesigning Communities to Reduce Greenhouse Gases	The 18 MPOs in California will prepare a "sustainable communities strategy" (SCS) to reduce the amount of vehicle miles traveled (VMT) and attain ARB's targets through integration of land use planning and transportation planning efforts	September 2008
SB 732 (Steinberg)	Strategic Growth Council	California creates the Strategic Growth Council (SGC) to coordinate the activities and funding programs of state agencies, including allocation of Proposition 84 grant funding, for encouraging the planning and development of sustainable communities	September 2008
HR 1424 (Kennedy)	Energy Improvement & Extension Act of 2008	This bill contains \$18 billion in incentives for clean and renewable energy technologies and energy efficiency improvements	October 2008
HR 1 (Obey)	American Recovery & Reinvestment Act	Spurred green jobs nationwide with the most funding ever dedicated towards clean energy and energy efficiency projects in a stimulus package. Contained over \$80 billion for clean energy and energy efficiency programs	February 2009
SB 575 (Steinberg)	Local Planning: Housing Element	Clarifies language from SB 375 on the role of Metropolitan Planning Organization's (MPO) in developing the SCS and specifically recognizes that the Tahoe MPO use the Regional Plan for the Tahoe Basin as the SCS	October 2009
AB 2724 (Blumenfeld)	Government Renewable Energy-Self Generation Program	Authorizes state agencies to receive subsidies under the CA Solar Initiative for solar systems up to 5 MW	September 2010
AB 1504 (Skinner)	Carbon Sink Act	Requires CALFIRE to assess the capacity of its forest and rangeland regulations to meet or exceed the state's GHG reduction goals, pursuant to AB 32	September 2010

Table 1: U.S. federal and state legislation driving sustainability activities in the Tahoe Basin

Opportunity

Despite these challenges, policymakers in the Tahoe Basin have a unique opportunity to reshape their communities to increase the resiliency of ecosystems, promote economic prosperity and improve community character and services. Urban areas built-out in the 1960's are now on the verge of major turnover, which creates an opportunity to make significant land use improvements. Tahoe's communities overwhelming desire replacing strip mall development patterns with compact, walkable, and transit-friendly communities. And the current TRPA Regional Plan Update seeks to integrate and encourage redevelopment as a means to achieve economic, community and natural resource goals. This opportunity along with a clearly defined path to sustainability in the Sustainability Planning Guidebook caused the California Strategic Growth Council to fund the \$1 million Tahoe Basin Partnership for Sustainability grant proposal in the fall of 2010.

Three-pillars of Sustainability

To effectively and efficiently transform Tahoe Basin to sustainable communities, policymakers and private and public project proponents must appreciate that the three pillars of *sustainability* are inextricably linked and all three must be considered in implementing policies and projects. The environmental condition of our natural resources is critical to economic prosperity and community enrichment. Eco-tourism is an important aspect of the regional economy, and the local population depends on the health of our natural resources to provide jobs and livable communities. Dynamic local and regional policies need to understand and account for the linkages between these three pillars of sustainability, demonstrated in Figure 1.



Figure 1: The three pillars of sustainability and example drivers that span all three pillars.

Collaboration

In order to implement policies and projects that consider the three pillars of sustainability, private and public entities in the Tahoe Basin must collaborate to create a joint sustainability vision for the basin. Integrating a joint sustainability vision into the existing decision-making, investment and planning processes in basin is necessary to achieve basin-wide sustainability goals. Existing processes include TRPA's Regional Plan, private-sector strategic plans and community-specific Tahoe Livable Community Plans. Further, research is needed to better understand how local systems have been and will be impacted by different drivers. This requires resource managers and the scientific community to work together so that research and monitoring investments are targeted and results synthesized and directly applied to address priority management questions.

Figure 2 demonstrates the interplay between local and regional planning in the Tahoe Basin. Regional Tools and Strategies ensure the Basin is working towards consistent broader goals and provides

economies of scale for tools needed by several entities. Tahoe Livable Community Plans address the unique needs of individual communities in alignment with region-wide goals and strategies. Tahoe Livable Community Plans aggregate to inform Regional Sustainability Planning, including the Tahoe Basin Sustainability Action Plan. Regional and local plans should inform one another and adjust as needs of the Tahoe Basin change over time.

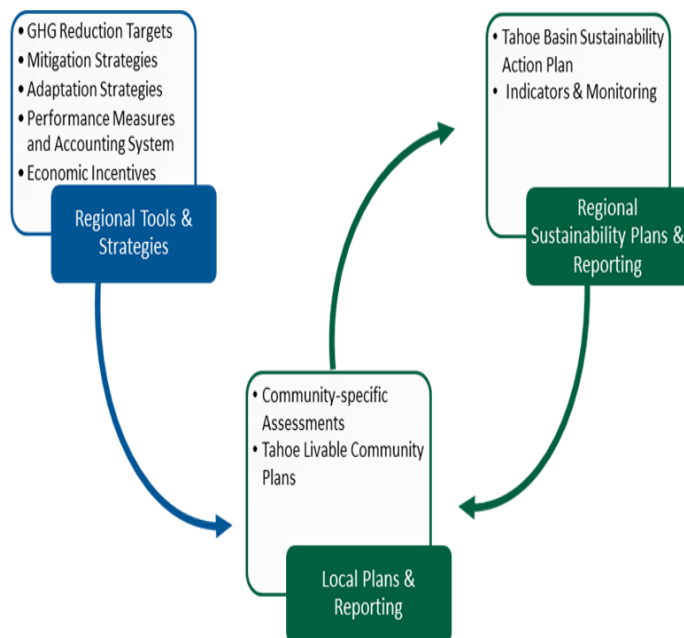


Figure 2: Integrated sustainability strategy for the Tahoe Basin that integrates regional and community-level planning, and supports a robust and implementable Tahoe Community Plans and regional Sustainability Action Plan.

PURPOSE & SCOPE

The Tahoe Basin Sustainability Planning Guidebook outlines a consistent but flexible means to understand and respond to changing environmental and socioeconomic conditions. Using a consistent framework for the collaborative development and periodic updating of a basin-wide Sustainability Action Plan can facilitate coordination across public and private entities, leverage common tools, and enable prioritization and collaboration of effort and funds.

The Sustainability Planning Guidebook defines a process to assist the federal, state and local Tahoe Basin agencies and communities to 1) develop a collaborative basin-wide Sustainability Action Plan that identifies *vulnerabilities* and works towards achieving the *triple bottom line* of economic prosperity, environmental health, and community enrichment, and 2) guide the annual reporting of progress towards implementing the basin-wide Sustainability Action Plan.

The Sustainability Planning Guidebook is intended to guide the Lake Tahoe Sustainability Collaborative (LTSC) in the development and ongoing implementation of the Sustainability Action Plan. The actual implementation steps will be determined and defined by the LTSC.

Key Terms

Vulnerability: The susceptibility of a system to harm from climate change. Vulnerability is a function of a system's sensitivity to climate and the system's adaptive capacity. Sensitivity + adaptive capacity = vulnerability

Triple Bottom Line: The expanded version of traditional reporting to include ecological and social performance in addition to financial success.

OBJECTIVES

The Sustainability Planning Guidebook helps Tahoe Basin agencies, jurisdictions, private sector and other stakeholders to identify, balance and achieve sustainability priorities. The Sustainability Planning Guidebook outlines recommended tasks to motivate:

Collaboration

- Develop unified vision and objectives
- Increase coordination and collaboration among individual agency, jurisdiction, private sector and other stakeholder efforts
- Increase transparency and trust within the community and with external funders
- Identify common priority sustainability actions, including research and monitoring needs

Adaptive Management

- Build local and regional skills and capacity to address sustainability issues
- Provide useful performance feedback to implementing entities to identify the success of implemented actions at achieving project goals and inform future investment decisions
- Define the function of *decision-support tools* and identify when they should be used
- Improve effectiveness of achieving basin-wide sustainability goals and objectives

Science

- Assess the substantial environmental, economic and social risks, vulnerabilities and opportunities in the Tahoe Basin
- Continually reduce *uncertainty* to improve future decision making
- Assure that the most current science is synthesized and presented in a format that is usable by agency management to inform decisions

Key Terms

Decision-support Tools:

Information systems that improve decision efficiency and effectiveness.

Uncertainty: An expression of the degree to which a value is unknown.

DEVELOPMENT PROCESS

The Sustainability Planning Guidebook is informed by established sustainability and climate change adaptation and mitigation planning frameworks and action plans. Sustainability and climate change planning frameworks and toolkits developed by ICLEI-Local Governments for Sustainability (ICLEI) had the most influence because ICLEI programs are well defined, based on quality planning processes such as New York City's PLANYC, and established among local governments in the United States and abroad. A number of additional processes and action plans were reviewed, including the California Climate Adaptation Strategy planning and implementation process, the Summit County Government Sustainability Action Plan, U.S. Forest Service climate change planning process and the United Nations Development Programme Adaptation Policy Frameworks.

Existing planning processes in the Tahoe Basin were researched to ensure the Sustainability Planning Guidebook effectively integrates and complements these existing processes. Interviews were completed with key program managers for planning processes such as the Environmental Improvement Plan (EIP) planning process, the Southern Nevada Public Land Management Act (SNPLMA) science theme development process, the California Tahoe Conservancy (CTC) project development process, the U.S. Forest Service planning process and the City of South Lake Tahoe Sustainability Commission work plan development process. The Climate Change Working Group (Working Group) with members from

agencies actively engaged in climate change planning and implementation activities and additional key stakeholders in Tahoe Basin sustainability initiatives was consulted during the development of the Sustainability Planning Guidebook to ensure consistency with ongoing climate and agency planning and implementation efforts.

Sustainability Planning Guidebook Overview

The Sustainability Planning Guidebook guides the Lake Tahoe Sustainability Collaborative (LTSC) through development and ongoing implementation of the Tahoe Basin Sustainability Action Plan (Sustainability Action Plan). The Sustainability Planning Guidebook is explicitly designed to promote multi-stakeholder collaboration within the Tahoe Basin because sustainability drivers and needs often overlap management responsibilities of many different entities. The Sustainability Planning Guidebook enables individual implementing entities to improve the ecological resiliency and socioeconomic conditions of the Tahoe Basin by collaboratively developing basin-wide sustainability visions and objectives, sharing information, and aligning strategies and research needs.

The Sustainability Planning Guidebook consists of two primary components. The first is a one-time process to develop and deploy the organizational infrastructure to support the ongoing implementation, planning and reporting process, resulting in the production of the first Sustainability Action Plan. The second is the ongoing annual implementation, reporting and updating process that implements the Sustainability Action Plan.

The Sustainability Planning Guidebook outlines recommended tasks based on established frameworks and is intended to be a static document. It is up to the LTSC to determine and define the specific tasks that will be implemented and use the Sustainability Planning Guidebook to ensure key tasks are not overlooked.

DEVELOP & DEPLOY

The development and deployment of the Sustainability Planning Guidebook is a one-time process to be led by the LTSC and its members. The items in the to develop and deploy section guide the LTSC through an integrative process that produces the initial Sustainability Action Plan, develops the first version of the supporting strategies and tools, and defines the ongoing implementation, planning and reporting process.

The individual tasks recommended for developing and deploying the initial Sustainability Action Plan and supporting tools are described in the 'Items to Develop and Deploy the Sustainability Planning Guidebook' section of this document. These items are recommended to be executed during the first one to two years of the collaborative sustainability implementation in the basin.

ONGOING IMPLEMENTATION, PLANNING & REPORTING

The ongoing implementation, planning and reporting process is an annual process that implements and updates the basin-wide Sustainability Action Plan. Additionally, updates are produced to the other products that inform the decision-making process of the LTSC and provide guidance to implementing entities for making coordinated implementation decisions. Descriptions of these products and the roles and responsibilities of the three primary participants that manage and implement the Sustainability Planning Guidebook are described below.

A complete outline of the elements of the ongoing implementation, planning and reporting process is provided in Appendix I. This outline is an example structure and suggested starting point for the LTSC when defining the operational details of each element of the ongoing implementation, planning and reporting process. The process is organized in a continual improvement and adaptive management structure (Plan-Do-Check-Act). Figure 3 summarizes the roles of the two main groups of participants - the LTSC and the implementing entities - for each of the four phases of the process. The group labeled

“implementing entities” includes organizations that implement projects (e.g. U.S. Forest Service, redevelopment organizations, transportation organizations and private sector), develop policy (e.g. Tahoe Regional Planning Agency), and execute research and monitoring (e.g. Tahoe Environmental Research Center).

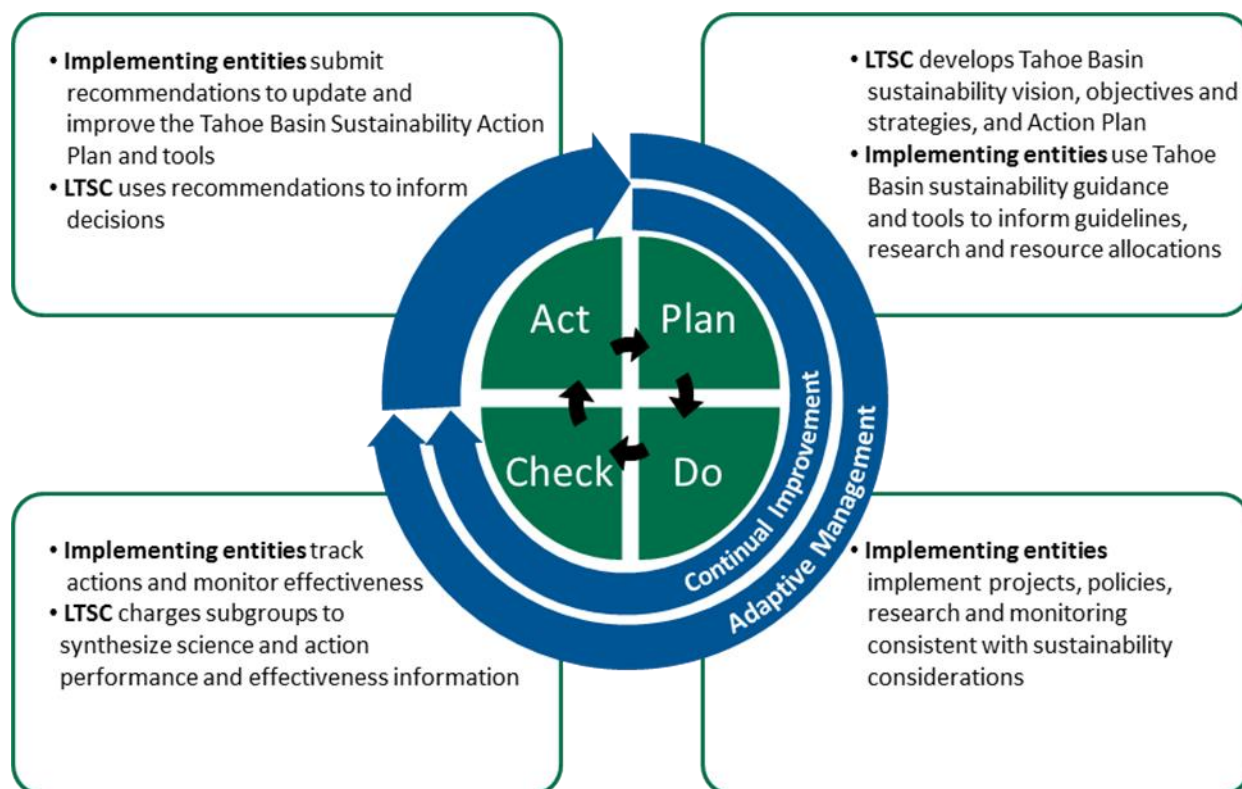


Figure 3: Summary of the ongoing implementation, planning and reporting process participant roles by process phase

Continual Improvement Products & Process

The Sustainability Planning Guidebook guides the development of a set of products that ultimately drive continual improvement of action effectiveness, build trust within the community, support public outreach, and provide feedback to external funders. The recommended products include a Sustainability Action Effectiveness Report and Recommendations Briefing Memo which are updated annually using data and reports primarily produced by implementing entities through existing processes. Each product is designed for different audiences and uses, and developed by subgroups commissioned by the LTSC.

Figure 4 presents the products recommended by the Sustainability Planning Guidebook and illustrates the information flow through the products. Each product is described in more detail in the text below. The blue boxes represent information sources:

Implementation performance reports and data include the EIP Capital Program Assessment Report, Tahoe Livable Community progress reports and other implementation data produced by the project implementers, through reporting of action implementation accomplishments (e.g. EIP performance measure reporting; Tahoe Livable Community benchmark progress reporting; GHG emission reductions, implementation of actions that align with priority economic strategies). Action performance informs future priorities and funding needs.

Effectiveness monitoring studies & data are produced by investigators who conduct intensive studies to determine the actual results from implemented actions that align with sustainability

strategies. The actual results are compared to the expected results documented through implementation reporting, specific stated goals and objectives of the action. Efficient strategy and action prioritization depend on effectiveness monitoring.

Status & trend monitoring assessments & data include the Tahoe Annual Report produced by the Tahoe Regional Planning Agency (TRPA) and other assessments that report the status and trend of critical environmental, economic and community health goals. This also includes monitoring data produced by investigators to show how natural systems, economic conditions and community health are changing both in response to climate change, macro-economic and other influences. Results from status and trend monitoring related to TRPA Thresholds and other goals inform the overall context for need for management action.

Research reports include published research and ongoing research status reports produced by scientists and economists who study system *sensitivity*, *adaptive capacity* and economic and social risks. Developing local research is critical to inform ongoing investment in effective actions.

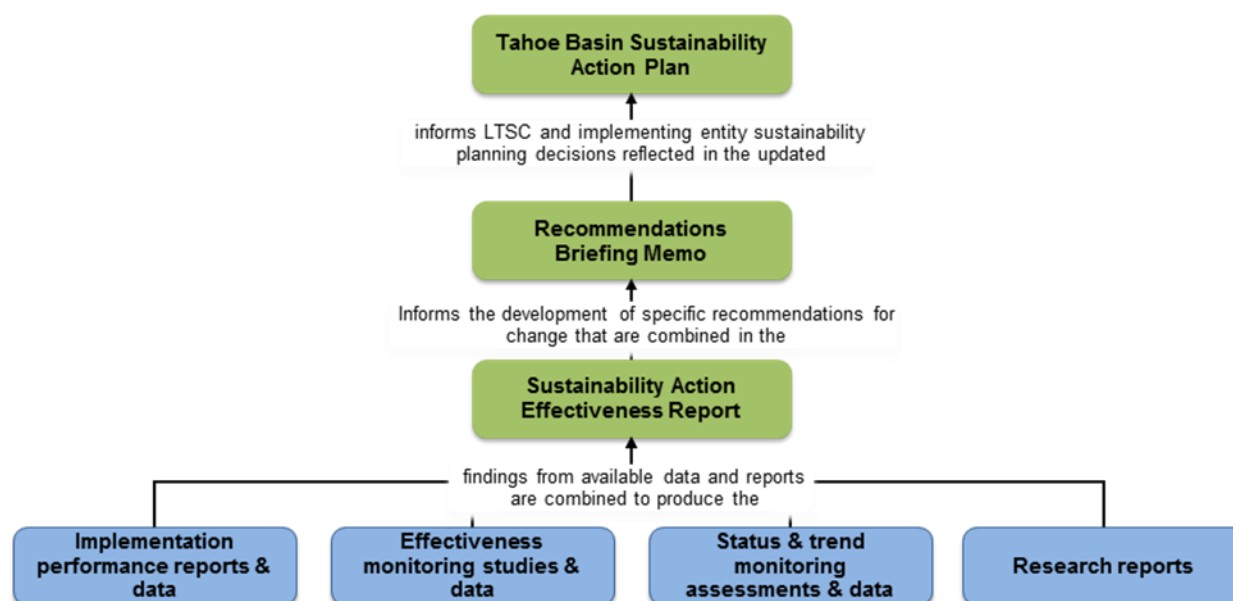


Figure 4: Sustainability Planning Guidebook products and supporting information sources

Sustainability Action Effectiveness Report

This report is the nexus of the information learned from implementing projects and policies, and performing research and monitoring. This report synthesizes the relevant information related to: the efficiency of actions implemented, operational constraints that limit the ability to implement certain types of actions, how project-specific actual outcomes compare to planned outcomes, and new scientific research and monitoring findings. The report is designed for 1) implementing entities to inform action prioritization and implementation decisions, and 2) the LTSC to inform adjustments to basin-wide visioning, objectives and strategies.

Recommendations Briefing Memo

This memo efficiently provides the LTSC with specific

Key Terms

Adaptive Capacity: The ability of a system to respond to climate change (including variability and extremes), to moderate potential damages, to take advantage of opportunities, and to cope with the consequences. Sensitivity + adaptive capacity = Vulnerability

Sensitivity: The degree to which a system is affected, either beneficially or adversely, by climate-related stimuli. Sensitivity + adaptive capacity = vulnerability

recommendations to consider in 1) the updated Sustainability Action Plan, and 2) the ongoing implementation, planning and reporting process definition and supporting infrastructure elements. Agency and jurisdiction staff, private sector and engaged stakeholders submit recommendations for adjusting the report and improving the implementation, planning and reporting process. The recommendations are evaluated for redundancy and efficacy, and then packaged with information extracted from the Sustainability Action Effectiveness Report. The final memo compiles recommendations into sets of changes for consent, discussion and adoption, consideration and rejection by the LTSC.

Tahoe Basin Sustainability Action Plan

The basin-wide Sustainability Action Plan summarize Tahoe Basin sustainability vision and objectives, results from implemented actions, near-term plans, future funding needs, and other relevant information as available. The goals of this report are to increase transparency for and build trust among stakeholders, motivate action by local communities, and to provide information and feedback to funders about sustainability actions. The expectation to regularly show results in this report drives the focus of implementing entities on integrating sustainability into their planning processes and implementation decisions.

Collaboration Roles & Responsibilities

The implementation of the Sustainability Planning Guidebook is driven by the LTSC and requires collaboration among many entities. Each element of the ongoing implementation, planning and reporting process is primarily owned by either the LTSC or the many individual implementing entities.

Lake Tahoe Sustainability Collaborative (LTSC)

The LTSC addresses the need for an all-encompassing, bi-state, multi-agency and private stakeholder group within the Tahoe Basin for developing and implementing a coordinated basin-wide Sustainability Action Plan. The LTSC determines and oversees the items to develop and deploy the Sustainability Planning Guidebook, as well as specific elements of the ongoing implementation, planning and reporting process.

Subgroups Convened by the LTSC

The LTSC is responsible for several tasks that require significant effort and unique skill sets. The LTSC manages these tasks but subgroups are organized or commissioned to develop the draft and final products. Subgroups may be charged with ongoing tasks such as annually evaluating strategies and progress for individual planning focus areas, or one-time tasks such as developing a training module or specific policy statement. Subgroups include a mix of LTSC members, implementing entity staff, researchers and consultants depending on the task.

Implementing Entities

Significant effort and investment are required to increase the sustainability of the Tahoe Basin and integrate the three pillars of sustainability into existing planning processes. Implementing entities include state and federal agencies, city and county jurisdictions, research groups, interest groups, the business community, private land owners and community members. Implementing entities are provided guidance and tools by the LTSC and the Sustainability Planning Guidebook products to support strategic planning, action development and action prioritization processes.

Figure 5 outlines the roles associated to the three general participants in the Sustainability Planning Guidebook. Appendix I contains the roles and responsibilities specific to each element of the ongoing implementation, planning and reporting process.

Sustainability Planning Guidebook Participants & Roles

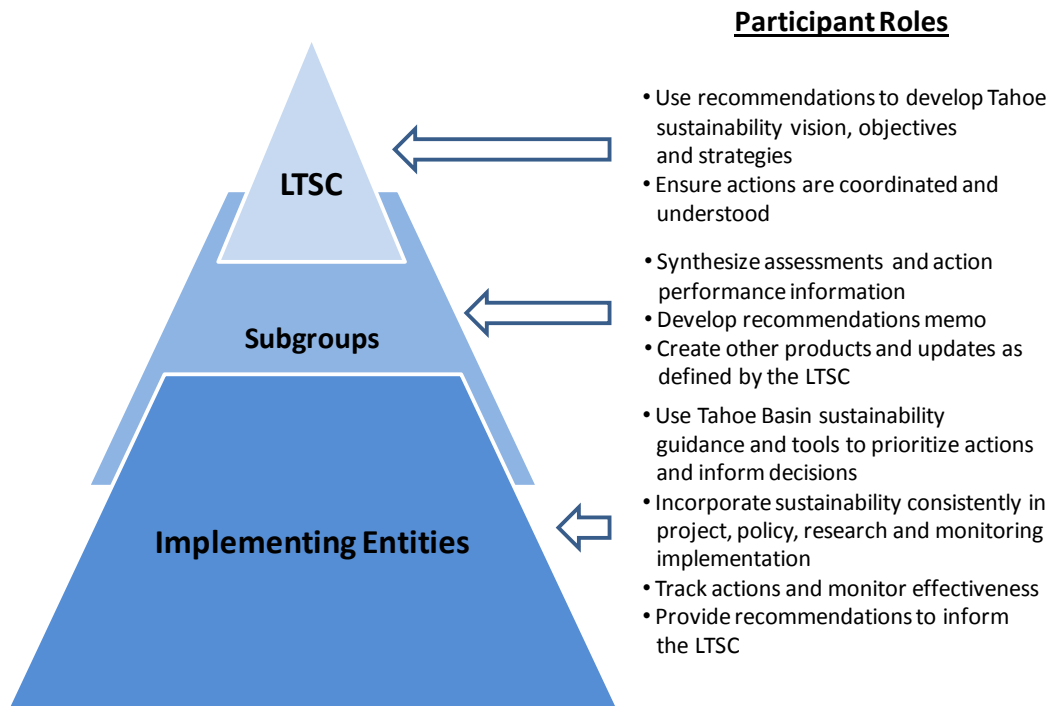


Figure 5: Sustainability Planning Guidebook participants and roles

Items to Develop & Deploy the Sustainability Planning Process

WHO	LTSC with assistance by Subgroups
WHAT	Develop and deploy the Sustainability Planning Guidebook, including supporting products, tools and initial Sustainability Action Plan
WHEN	Estimated mid-2010 through end of 2011

Several one-time items are recommended to develop the initial Sustainability Action Plan and deploy it effectively. These items include creating the LTSC and selecting *planning focus areas* for organizing sustainability targets (e.g. GHG emissions targets). The products developed through this process, such as the initial Tahoe Basin Sustainability Action Plan, should be defined to only achieve immediate needs so that they can be developed quickly. The ongoing implementation, planning and reporting process will thoroughly define and enhance each product over the first year of its implementation. The items are informed by the established ICLEI sustainability and climate change planning processes and the specific stakeholder setting in the Tahoe Basin. Table 2 lists each phase, the expected duration to complete the phase, and its component item. The items are listed in a recommended sequence although they do not need to be executed sequentially and several items have begun as of July 2010.

Key Terms

Planning Focus Area: The areas in which an entity manages, plans or makes policy affecting the services and activities associated with build, natural and human systems.

PHASE	DURATION	Item
Phase 1: Create Managing Body, Define Purpose & Gain Support	3 months	1. Create LTSC
		2. Define Decision-Making Process
		3. Define Mission & Guiding Principles
		4. Gain Support of Participating Implementing Entities
Phase 2: Define Roles & Operations	6 months	5. Identify LTSC Coordinator & Sustainability Champion
		6. Select Planning Focus Areas
		7. Define Ongoing Implementation, Planning & Reporting Process
Phase 3: Build Out Products & Supporting Tools	Over first 1 to 2 years of operation	8. Define Initial Vision, Objectives & Strategies
		9. Develop Public Outreach Plan
		10. Develop Initial Tahoe Basin Sustainability Action Plan
		11. Commission Assessments and Inventories
		12. Develop Sustainability Action Plan Evaluation Metrics & Targets
		13. Develop Monitoring Plans
		14. Develop Policy Guidelines
		15. Develop Decision-Support Tools
		16. Develop Training Modules

Table 2: Phases and items to develop and deploy the Sustainability Planning Guidebook

PHASE 1 – CREATE MANAGING BODY, DEFINE PURPOSE & GAIN SUPPORT

Item 1. Create the Lake Tahoe Sustainability Collaborative (LTSC)

The multi-stakeholder Tahoe Basin LTSC is responsible for launching and managing the overall implementation of the Sustainability Planning Guidebook and implementing specific elements of the ongoing implementation, planning, and reporting process defined in Appendix I. Another key role of the LTSC is to facilitate development and coordination of actions that overlap and produce benefits for multiple planning areas. Actions that provide co-benefits (benefits to multiple planning areas) may not be selected if only the benefits of a specific planning area are prioritized. Additionally, coordinating implementation across multiple planning areas can be difficult without an advocate connected to each planning area.

The LTSC should include representatives of the primary federal and state agencies, local jurisdictions, business community, academic community, community residents, and environmental and other interest groups within the Tahoe Basin. The exact structure, size and membership should be strategically defined to ensure the group is functional. There should be fewer than 20 members, and groups not represented should be considered for participation in subgroups.

The Lake Tahoe Prosperity Center board of directors contains the executives of the primary agencies, jurisdictions and private sector and community interests in the Tahoe Basin and could function as the founding body of the LTSC and approve the LTSC structure, size and membership.

Item 2. Define Decision-Making Process

In order for the LTSC to work efficiently and effectively, the individual roles of the LTSC membership and the decision-making process of the LTSC should be defined and approved by the LTSC members. A mechanism such as a charter should be used to govern the LTSC and get all members to agree to and support the defined roles and decision-making process.

Item 3. Define Mission & Guiding Principles

The Sustainability Action Plan mission and guiding principles guide all future decisions related to the design and implementation of the Sustainability Planning Guidebook actions, irrespective of changes to specific goals, strategies, type of work, or the LTSC membership.

A mission statement clearly states the purpose of sustainability planning in the Tahoe Basin. An example mission statement is: The mission is facilitate a collaborative decision making process towards achieving lasting economic prosperity, enriched communities and a healthy environment in the Tahoe Basin to the greatest extent possible.

Two recommended references for developing guiding principles are the guiding principles in the City of South Lake Tahoe Sustainability Plan and the guidance for developing guiding principles in Chapter 10 of the ICLEI

ICLEI recommends the following five guiding principles for adaptation frameworks, which could inform the Sustainability Action Plan Mission & Guiding Principles:

1. Increase public awareness of climate change and its projected impacts on your community
2. Increase technical capacity to prepare for climate change impacts
3. “Mainstream” information about climate change vulnerabilities, risks and preparedness into planning, policy, and investment decisions
4. Increase the adaptive capacity of built, natural, and human systems in the community
5. Strengthen community partnerships that reduce vulnerability and risk to climate change impacts

Climate Resilient Community Program Guidebook¹. The mission and guiding principles are documented in the mechanism (e.g. Charter) governing the LTSC and in the annual Sustainability Action Plan.

Item 4. Gain Support of Implementing Entities

It is necessary for many different implementing entities to participate in the implementation of the Sustainability Action Plan in order to maximize the effectiveness of investments towards achieving basin-wide sustainability vision and objectives. A commitment to participate in the LTSC and use the goals and guiding principles should be made by each implementing entity using a mechanism such as a Memorandum of Understanding.

Implementing entities may be reluctant to make a commitment to incorporate recommendations from the LTSC into their planning processes and augment their planning and implementation objectives and strategies. It is recommended that the Lake Tahoe Prosperity Center board of directors and TIE-SC approves the content of the mechanism used to gain commitment in order to build support from the largest implementing entities and public agencies before investing effort in gaining commitment from other implementing entities and community stakeholders. After gaining commitment from the largest implementing entities and public agencies, focus should shift to local jurisdictions, non-government agencies, interest groups, businesses, private land owners and other community stakeholders.

PHASE 2 – DEFINE ROLES & OPERATIONS

Item 5. Identify LTSC Coordinator & Sustainability Champion

A coordinator manages the responsibilities of the LTSC, including scheduling LTSC and subgroup meetings, ensuring materials are assembled and distributed to the LTSC and subgroups, and ensuring tasks are tracked and completed. The sustainability champion is the face of the Sustainability Action Plan to the public and potential funders. The sustainability champion plays a critical role by providing leadership to the community, motivating participation of implementing entities participating in the implementation of the Sustainability Planning Guidebook and participating in policy discussions related to sustainability on behalf of the LTSC. This individual is well-respected and trusted by the public and leaders inside and outside of the Tahoe Basin. Further, this individual is knowledgeable and willing to provide policy recommendations that may not be politically advantageous.

Item 6. Select Planning Focus Areas

A strategically designed structure through planning focus areas will organize, communicate and manage identified challenges, developed strategies and implemented actions. The multi-jurisdictional setting in the Tahoe Basin along with the need to integrate with a wide range of private sector entities will make the definition of planning focus areas more challenging as well as more important to the success of sustainability planning and implementation. Some existing planning frameworks use other terms, such as “sectors,” to organize sustainability efforts. The term “planning focus areas” is recommended for the Tahoe Basin because it emphasizes the need to integrate sustainability into existing planning processes. After developing “planning focus areas”, consider mapping the planning focus areas to the sectors or planning areas of relevant entities (e.g. federal and state) to facilitate future communications.

The following is a list of recommendations to consider when developing the “planning focus areas”:

¹ Snover, A.K., L. Whitely Binder, J. Loopez, E. Willmott, J. Kay, D. Howell, and J. Simmonds. 2007. *Preparing for Climate Change: A Guidebook for Local, Regional, and State Governments*. In association with and published by ICLEI – Local Governments for Sustainability, Oakland, CA.

- Define planning focus areas that individuals and organizations can take responsibility for and are directly aligned with existing planning and reporting systems, such as as EIP Focus Areas.
- Develop a list of planning focus areas that will support the most efficient development, communication, collaboration and management of sustainability strategies, policies, actions and science needs in the Tahoe Basin
- Align planning focus areas with California state organizational structures such as California Adaptation Strategy¹ sectors (Public Health, Biodiversity and Habitat, Ocean and Coastal Resources, Water Management, Agriculture, Forestry, Transportation and Energy Infrastructure) to improve efficiency when working with California agencies outside of Tahoe Basin
- Align planning focus areas with those used by the federal government to more effectively communicate with federal agencies and apply for federal funding

Item 7. Define Ongoing Implementation, Planning & Reporting Process

The ongoing implementation, planning and reporting process produces the annual Sustainability Action Plan, provides guidance to implementing entities, and ensures that continual improvement and adaptation management inform management decisions.

The ongoing implementation, planning and reporting process outlined in Appendix I is a starting point based on the Tahoe Basin General Management System. The Generalized Management System was developed specifically for developing management processes in the Tahoe Basin. The Generalized Management System Manual² and the accompanying Process for Developing a Program-Specific Management System guidebook are recommended references.

The result of this item is expected to be a manual that clearly defines all elements, products and roles related to the continual improvement process. Key recommendations to consider while defining the ongoing implementation, planning and reporting process are provided below by subject area.

Basin-wide Strategies

Basin-wide strategies align implementing entities and increase progress towards a sustainable Tahoe Basin. Implementing entities that utilize strategies that span multiple planning areas likely increase their impact by leveraging potential synergies. Managers should coordinate resources to ensure priority actions are implemented.

Integrating with Existing Planning Processes

The adoption and effectiveness of the ongoing implementation, planning and reporting process depends on 1) how easy it is for individual entities to integrate information and tasks into existing planning processes, and 2) the benefits from participating in the ongoing implementation, planning and reporting process. The primary planning processes in the Tahoe Basin should be analyzed to identify how each element of the ongoing implementation, planning and reporting process can inform and be informed by the individual entity planning processes. It should be emphasized that sustainability strategies often compliment or advance an agency's broader objectives due to producing co-benefits, making implementation more efficient and avoiding political barriers.

Stakeholder Engagement

² Sokulsky, J. and T. Beierle. 2007. Management System Design: Generalized Management System Design Manual. Prepared by Environmental Incentives, LLC for the Tahoe Regional Planning Agency. Stateline, NV. Available at www.tiims.org.

Stakeholders should be involved throughout the development and implementation of the Sustainability Action Plan. Strategically incorporating stakeholders into the implementation Sustainability Planning Guidebook may be the most determining factor in the successful implementation of the Sustainability Action Plan. It is important to identify when and how the critical stakeholder knowledge of the natural, built and human systems in the Tahoe Basin can be leveraged and who specifically obtains the knowledge, and political and social capital. At a minimum, stakeholders should be involved in the prioritization of basin-wide strategies and actions in order to maximize relevance, usefulness and credibility. Stakeholders who understand the perspectives of the local community and implementing entities should be involved in the development of the public outreach plan to help motivate the public and increase political support.

Identify and Address Barriers

Barriers, such as legal or social constraints, can increase the cost or completely stop actions after implementation begins. If addressed early on, potential barriers may be overcome at a lower financial or political cost. Further, the cost of addressing the risk related to potential barriers may decrease the expected value of a policy or project, and should be included in action prioritization criteria. Barriers to achieving goals and implementing actions should be identified early on and options for overcoming barriers should be evaluated. Additional costs and uncertainties should be accounted for before proceeding with implementation.

Staff Training

Training tools and staff trainings increase the technical understanding of sustainability efforts among implementing entity staff and drive change in staff behavior. Increasing the knowledge base is necessary for sustainability to be integrated into project selection, design, review and implementation decisions. Sustainability information should be provided to agency staff in easily digestible formats to improve their understanding and appropriately incorporate sustainability into actions.

Monitoring, Research & Adaptive Management

Monitoring, research and adaptive management demonstrate the effectiveness of implemented actions and improve the development and selection of future actions. Demonstrating action effectiveness can increase commitment to the implementation of effective actions. This increases the confidence of funders, and improves the effectiveness of the investment of public and private funds. It is important to implement additional local monitoring, action effectiveness evaluation and scientific research in the near future considering sustainability planning needs.

PHASE 3 – BUILD OUT PRODUCTS & SUPPORTING TOOLS

Item 8. Define Initial Vision, Objectives & Strategies

A vision, objectives and strategies for the Sustainability Action Plan guide the LTSC and subgroups implementing the Sustainability Planning Guidebook and inform implementing entities developing their organization's vision, objectives and strategies. After developing the vision, objectives and strategies should be developed that both span multiple planning focus areas and focus on each specific planning focus area. Objectives are specific, measurable ends that are used to determine if vision is achieved. Strategies are methods to achieve the vision and objectives.

The vision, objectives and strategies are documented in the Sustainability Action Plan and updated annually by the ongoing implementation, planning and reporting process. The LTSC evaluates the vision, objectives and strategies of the implementing entities to leverage existing efforts and develop synergies. The LTSC is also informed by the Recommendations Briefing, which includes specific recommendations

by implementing entity staff and interested stakeholders as well as synthesized findings from the inventories, analyses, and performance effectiveness.

Implementing entities use the Sustainability Action Plan vision to inform their organization's vision (e.g. CSLT Sustainability Plan Vision and LTBMU Forest Plan Goals), objectives and strategies (e.g. CTC Program Area Guidelines, EIP Priorities, TRPA Regional Plan Element & Subelement Goals & Policies, LTBMU Forest Plan Desired Conditions and Strategies). The vision, objectives and strategies should become more defined over time as implementing entities provide feedback on them and identify how to integrate them into their internal processes.

Item 9. Develop Public Outreach Plan

Public education and interactive tools can enable the public to participate in and increase the public's willingness to improve the sustainability of the Tahoe Basin. Public engagement and support for the sustainability actions of Tahoe Basin implementing entities can increase future implementing entity funding and political will. The residents of the Tahoe Basin can improve the sustainability of the Tahoe Basin through implementing Best Management Practices, using public transportation, installing energy efficiency appliances and many other actions. A public outreach plan should be developed and implemented, and the ongoing implementation, planning and reporting process will monitor and update the plan annually.

The public outreach plan should be guided by objectives developed by the LTSC and should include a clear strategy for reaching each target audience and addressing their individual, unique interests. It should use a variety of outreach tools, such as newsletters, fact sheets, public meetings, events for businesses and NGOs, and media training events. This will maximize the reach of the communications effort. Further, the public outreach plan should leverage available tools developed for California (e.g. CalAdapt), Nevada or national interest, as well as develop new tools such as a dedicated Tahoe Basin Sustainability Resource Center website.

A member of the LTSC with public relations or marketing experience should lead the development of the Public Outreach Plan.

The following are the public outreach goals for New York City's PLANNYC:

- Solicit as many ideas as possible
- Ensure that the public feels included in the planning process with the hope that they will therefore support the plan once it is released
- Educate the public about the region's environmental and infrastructure challenges
- Use the planning process to incorporate feedback so the plan will not be a "draft" document but one that is implemented immediately

Public outreach plans work best when a clear, branded message is developed and the message is used consistently through a diverse set of channels.

The following seven message points are recommended by ICLEI to be considered when developing an outreach plan.

1. Describe changes that have already been observed
2. Describe changes that are expected
3. Describe how climate change may impact the community
4. Convey the need for action but balance with optimism
5. Identify other communities similar to yours that are undergoing similar planning efforts
6. Develop a course of action
7. Acknowledge that questions remain

Item 10. Develop Initial Tahoe Basin Sustainability Action Plan

An initial Sustainability Action Plan should be developed to gain recognition for the many sustainability efforts already underway in the Tahoe Basin and share additional needs with external audiences. The report can be used to 1) communicate progress to date and plans to federal supporters and other funding sources, 2) communicate identified needs and plans to local stakeholders, and 3) serve as an initial template to modify and build upon to develop a comprehensive Sustainability Action Plan over the following year.

The Climate Action Databases and other decision-support tools should be used to evaluate and prioritize potential actions and identify “no-regret” and “low-regret” actions to include in the plan.

Potential list of topics to cover in the Sustainability Action Plan:

- Mission and Guiding Principles
- Goals, Objectives & Strategies
- Tahoe Basin projected climate change hazards, system responses and vulnerabilities to illustrate issues being addressed by the plan
- Basin-wide and planning area specific adaptation actions completed, system needs, plans, and research and monitoring findings organized by objective
- Basin-wide and planning area specific inventories, targets, completed actions and plans

Item 11. Commission Assessments and Inventories

Basin-wide inventories and assessments are necessary to understand community and regional sustainability needs and barriers, set targets and develop efficient and comprehensive strategies. This information will inform the ongoing local and regional planning efforts, including the development of the Tahoe Livable Community Plans and the basin-wide Sustainability Action Plan. Example assessments and inventories include:

Climate Change Adaptation Science Syntheses: The extensive research related to the projected climatic changes in the Tahoe Basin and the vulnerability and adaptive capacity of ecosystems is synthesized and knowledge gaps are identified to inform resource management decisions.

GHG Inventory: Both stationary and mobile sources are inventoried. A GHG emissions *baseline* (any datum against which change is measured) is identified and future GHG emissions forecasts are used to set basin-wide and planning area specific GHG targets.

Housing & Livability Assessment: Includes economic, political and demographic data and should assess factors such as access to public services, community walkability and access to open space.

Transportation Assessment: Evaluates ways to increase access to public transit and reduce visitor vehicle pollution without negatively impacting local tourism.

Item 12. Develop Sustainability Action Plan Evaluation Metrics & Targets

Program evaluation metrics gauge program performance towards achieving goals and objectives and provide insight into the implementation of strategies. Program evaluation metrics span a spectrum of types (as exhibited in Figure 6) and each type serves different and important purposes.

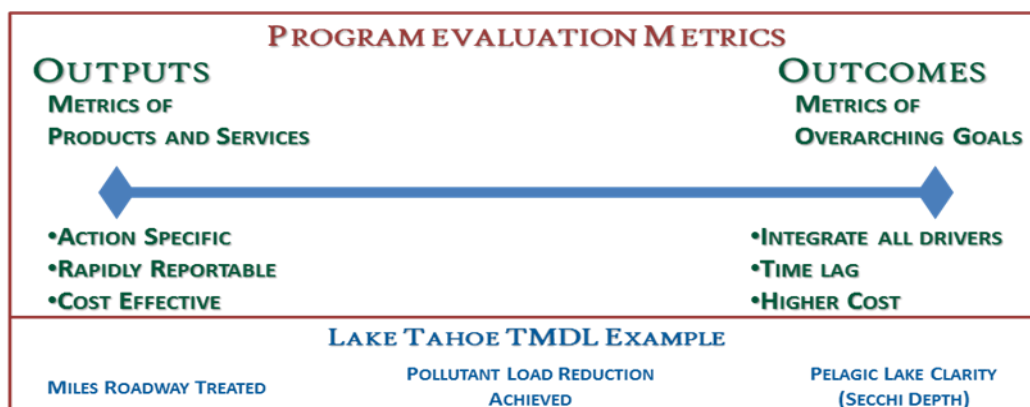


Figure 6: Spectrum of performance measure types and Lake Tahoe TMDL example performance measures

Outcomes (right-hand side of spectrum) evaluate goal achievement and are important because they incorporate all drivers, including ambient conditions. However, outcomes typically require a time lag and are more costly to produce. Outputs (left-hand side of spectrum) evaluate action implementation and are important because they are more cost-effective and align with short political reporting needs. However, outputs do not as accurately reflect system conditions. Program evaluation metrics (middle of the spectrum) can provide insight into action effectiveness. For example, sweeping streets is an action that helps achieve the Lake Tahoe TMDL. 'Miles Roadway Treated' is an output, 'Pelagic Lake Clarity' (Secchi Depth) is an outcome, and 'Pollutant Load Reduction Achieved' is in the middle of the spectrum.

The LTSC should compile a list of current sustainability metrics for the Tahoe Basin (Lake Tahoe Watershed Sustainability Measures Project, EIP Performance Measures, TRPA Threshold Indicators). The LTSC should then evaluate and prioritize down to a manageable set of quantifiable basin-wide sustainability metrics that are aligned with the Sustainability Action Plan goals and objectives. The LTSC can then recommend actions to implementing entities based on performance measures and provide potential funders assurance that their investments will be used efficiently.

To accompany these sustainability metrics, the LTSC should set realistic yet aspirational, basin-wide sustainability targets to achieve the Sustainability Action Plan goals and objectives. Sustainability targets are set to guide each planning focus area. The basin-wide and planning focus area specific targets should be set through a collaborative process that incorporates operational and political factors.

The Sightline Institute's Cascadia Scorecard measures sustainability indicators and provides status reports for communities in the Pacific Northwest.⁷

- **Health** measured as longevity
- **Population** measured as total fertility rate
- **Economy** measured as unemployment rates, median incomes, poverty rates and the share of children living below the poverty line
- **Sprawl** measured as percent of residents who live in neighborhoods with at least 12 residents per acre
- **Wildlife** monitoring the ranges of five key wildlife populations of regional importance
- **Energy** measured through overall energy consumption, per-person consumption of motor fuels and the use of electricity in homes and buildings
- **Pollution** measured from concentration of PCBs and PBDEs in breast milk

Item 13. Develop Monitoring Plans

Monitoring ongoing changes in the environmental and socioeconomic state of the Tahoe Basin is as important as modeling future changes. Monitoring needs to be strategically implemented to generate the data needed to improve sustainability in the Tahoe Basin and use available resources efficiently. For

example, each community in the Tahoe Basin has unique economic and community health needs and objectives, and monitoring must be designed to help each communities understand and improve progress towards their objectives. Further, California's existing environmental monitoring network was not established with climate change in mind³. Temperature monitoring stations are based in areas where people and resources exist instead of locations that could act as an "early warning system" of greater climate change to social, environmental and economic systems. Long-term DWR and USGS weather and hydrologic datasets within the Lake Tahoe Basin do exist and are analyzed to evaluate past trends with respect to climate change. These datasets are priceless and it is critical to maintain existing monitoring systems for the different sustainability metrics developed by the LTSC.

Local monitoring provides better information for research and adaptive management within the ongoing implementation, planning and reporting process. Improved monitoring also enables the measurement of progress towards Sustainability Action Plan goals and targets. Resources should be allocated to existing monitoring stations that provide reliable, long-term data, and new resource monitoring stations should be employed to fill data gaps.

Item 14. Develop Policy Guidelines

Developing guidelines for federal, state and local policies that multiple Tahoe Basin entities must comply with helps Tahoe Basin entities efficiently and effectively meet mandates. Policies include the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

Recently adopted CEQA Guidelines Amendments require the analysis and mitigation of GHGs. Recently proposed NEPA guidance suggests considering GHG emissions and future effects of climate change. Both CEQA and NEPA preserve the discretion of lead agencies in making determinations of project specific thresholds of significance for GHG emissions and in the case of NEPA, impacts to system adaptive capacity. The discretion available to lead agencies can contribute to the adoption of varied significance findings, which may fail to appropriately take into account local policy and environmental needs, and may add substantial effort and costs to project planning.

Determining project specific thresholds of significance for GHG emissions and impacts to system adaptive capacity is complex. Thresholds should be scientifically supported, take into account Tahoe Basin policy and environmental needs, and be updated over time as Tahoe Basin policy and environmental needs change. The production of basin-wide CEQA and NEPA guidance reduces the net environmental impact of projects, reduces the resources required to produce CEQA and NEPA documents, and increases the contribution to basin-wide climate change adaptation and mitigation objectives. The resulting products may be in the form of specific targets and guidance related to achieving such targets in the Sustainability Action Plan or in the case of CEQA, may come from an Environmental Impact Report containing a programmatic analysis of GHG emissions. Future project-specific environmental documents would be able to rely on and tier from such guidance.

It is critical that each agency that may benefit from basin-wide CEQA and NEPA guidelines be involved in the development process so that each agency's experience related to addressing recent climate change requirements is leveraged and guidance accounts for agency-specific processes and policies. Draft basin-wide guidelines should be reviewed by agency departments responsible for approving CEQA and NEPA documents, such as the U.S. Forest Service regional office.

³ California Natural Resources Agency. "2009 California Climate Adaptation Strategy." *The California Energy Commission*. December 2, 2009. <http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF> (accessed February 2010).

⁷ Sightline Institute "Cascadia Scorecard: Measuring What Matters." <http://scorecard.sightline.org/summary.html>

Item 15. Develop Decision-Support Tools

Decision-support tools assist policy makers and project developers in 1) prioritizing potential actions, 2) evaluating design options, and 3) tracking results of actions in order to measure progress towards sustainability objectives and targets. Standardized decision-support tools used by all Tahoe Basin implementing entities increases efficiency and coordination among implementing entities. Decision-support tools should utilize risk and tradeoff analysis related to the three pillars of sustainability to improve the effectiveness of resource allocation decisions. Example decision-support tools include:

Sustainability Action Effectiveness Report: Helps decision-makers understand the possible range of future climate change and macro economic impacts, and prioritize proposed actions. The report should contain a vulnerability assessment which defines and prioritizes system and community vulnerabilities, guides the LTSC when setting basin-wide sustainability objectives and strategies, and informs the prioritization of actions. The Sustainability Action Effectiveness Report should incorporate all three pillars of sustainability and the co-benefits of sustainability actions.

Climate Action Database: The Climate Action Database evaluates policy actions and the evaluation of research and monitoring actions is under development. The Climate Action Database will store project actions but the evaluation of project actions is not included in the current project scope. As of September 2010, the Climate Action Database is available to implementing entity staff and is expected to undergo periodic updates.

It is also necessary to develop a

Item 16. Develop Training Modules

Enabling agency staff to incorporate sustainability into their decisions is one of the most important aspects of the Sustainability Planning Guidebook. Training modules that educate project selection, decision and implementation decisions targeted to each planning area should be developed. Many sustainability training tools have been developed by relevant agencies, such as the U.S. Forest Service's Climate Change Resource Center, and existing tools should be assembled before developing any new tools.

Training tools should be available on a website and classroom-style training should also be scheduled. Gaining commitment from agency management to commit their staff to attend training is highly recommended.

INITIATING ONGOING IMPLEMENTATION, PLANNING AND REPORTING PROCESS

The ongoing implementation, planning and reporting process can begin after Phase 2 is started and can be used to develop the products in Phase 3. The ongoing process is then used to annually update the products as described in the Sustainability Planning Guidebook Overview section above and Appendix I.

Appendix I: Operational Description of Ongoing Implementation, Planning and Reporting Process

The ongoing implementation, planning and reporting process outlined below is an initial outline and is to be further defined by the LTSC as Item 7 in the Sustainability Planning Guidebook. The tables starting of page 3 of this appendix outline a typical ongoing implementation, planning and reporting process to serve as a starting point for further refinement by the LTSC. The outcome of the items to develop and deploy the Sustainability Planning Guidebook will inform the complete definition of roles, responsibilities and processes related to each element of the process.

Figure 7 is a visual representation of the core elements and process flow of the ongoing implementation, planning and reporting process. The figure also highlights the shared implementation responsibility between the LTSC and the many implementing entities in the Tahoe Basin. Elements with a white background are primarily owned by the LTSC and elements with a green background are primarily owned by many individual implementing entities.

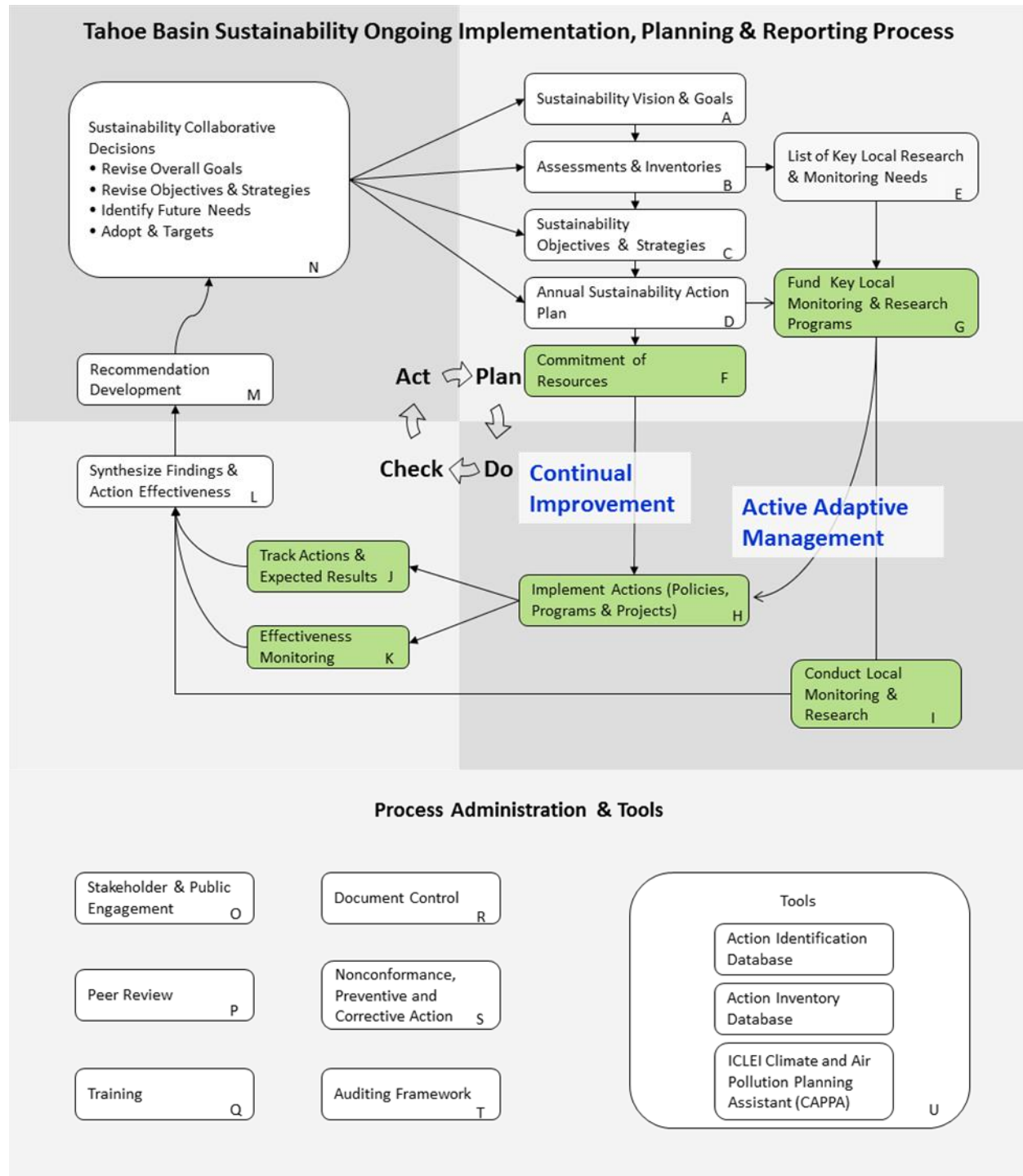


Figure 7: Tahoe Basin Sustainability Planning Guidebook recommended ongoing implementation, planning and reporting process element diagram (elements with a white background are primarily owned by the LTSC and elements with a green background are primarily owned by many individual implementing entities)

NEED FOR PRACTICALITY AND CONSISTENCY

Ongoing processes should be tailored to focus available resources on the highest value processes and minimize the administrative effort in areas that do not effectively advance sustainability. In particular, the trade-off between frequency of occurrence and level of detail of products should be considered with the understanding that consistency drives behavior more than detail. Thus, consistently generating a simple annual report of accomplishments is more effective at focusing agency staff and public attention on showing progress toward achieving sustainability goals than developing a detailed report.

Similarly, agencies have demonstrated the ability to develop annual reports for budgeting and board oversight (i.e. CTC Land Coverage Bank Board Reports, and TRPA Annual Cumulative Accounting), while they have struggled to develop less frequent reports (i.e. Water Board Tri-Annual Reviews, and TRPA Threshold Evaluation Reports). Consistency enables staff to develop routines that reduce effort. Further, consistency of information flow is critical to inform policy decisions, that otherwise stagnate, resulting in policies that are broadly disregarded because of recognized imprecisions or impracticalities (i.e. matching excess coverage mitigation soil types to mitigation site soil types, and private property BMP implementation requirements). To illustrate this point, potential trade-offs and costs for different approaches to updating the Sustainability Action Plan called for in element D below.

APPROACH	DESCRIPTION	RESOURCES	PROS	CONS
Annual Sustainability Action Plan Update	Report numeric accomplishments and describe key projects from previous year, identify key findings, update plans	Gather data as projects initiated and completed Capture learning from period in report appendix Incrementally update of previous year plan with new information 0.1 PY for report developer + 1 day per active project by project staff, minimal review	When data suppliers understand the information will be used immediately they are more likely to supply Efficient capture of recent learning Consistency & frequency of report drives understanding Incremental updates are understood in context Aligned with annual resource planning Consistent staffing assignment	Requires annual dedication of resources Requires annual review of information by governing body
Four-Year Review and Revise Sustainability Action Plan	Report numeric accomplishments from period, identify all projects and describe examples, gather and review findings, overhaul report	Identify active and completed projects during overall period Refresh understanding of data requirements & gather historic data Literature review and survey of learning during period and synthesize for report Likely redesign of report layout and content 0.5 PY across 2 staff people gathering information and developing report + significant effort per project staff, significant review and increased potential for time consuming dispute resolution	Does not require ongoing staff attention	Without ongoing attention data is lost and suppliers are difficult to track down and provide information Time lapse requires formal review of learning Infrequent reporting requires users to refresh on meaning and utility of information Updates lack near-term context and are more contentious, with higher potentially to require dispute resolution Major revisions inspire desire to redesign report layout and content Uncertainty & lack of efficiency from inconsistent staffing assignment

EXAMPLE ONGOING PROCES DEFINITION

Legend									
		Elements with a white background are primarily owned by the Lake Tahoe Sustainability Collaborative (LTSC)							
		Elements with a green background are primarily owned by many individual implementing entities							
Element	Title	Process Description	Products & Information	Leading Body	Decision Process	Timing of Process	Secondary Process & Parties	Resources, Examples & Considerations	
Plan	A	Sustainability Vision & Goals	Identify a sustainability vision and goals that clearly state the purpose of actions and guide implementing entity planning processes	An agreement by the LTSC potentially documented in a Charter for the LTSC and the Sustainability Action Plan	LTSC	LTSC informed by implementing entities, interested stakeholders and the Recommendations Briefing (which includes considerations from assessments and inventories, analysis, action performance and effectiveness, and Climate Action Database)	Once Annually	Implementing entities use the Sustainability Goals to inform their own goals (e.g. CSLT Sustainability Plan Goals, TRPA Regional Plan Goals, LTBMU Forest Plan Goals)	Reference Chapter 10 of the ICLEI-Local Governments for Sustainability Climate Resilient Communities Program guidebook (Preparing for Climate Change - A Guidebook for Local, Regional and State Governments) for developing climate resiliency goals Consider developing measure of resilience to include in the monitoring and evaluation systems to measure the impact of actions towards the adaptive capacity of systems
	B	Assessments & Inventories	Define and prioritize actions by systems or planning focus areas, and inventory and set planning focus area sustainability targets for the Basin	Document prioritization updates and inventory results and targets for each planning focus area	LTSC - technical subgroups	Delegated economists and scientists update the assessments and inventories and the LTSC approves modifications	Once Annually		The Sustainability Action Effectiveness Report may contain a natural resource vulnerability assessment and community health assessment that can be used in management decisions rather than developing a conceptual model, though both would be ideal and synergistic. See Develop & Deploy Step 11 for more information and recommendations related to assessments

	Element	Title	Process Description	Products & Information	Leading Body	Decision Process	Timing of Process	Secondary Process & Parties	Resources & Examples
Plan	C	Sustainability Objectives & Strategies	Identify multi-planning focus area and planning focus area-specific objectives (specific ends to achieve through implementing actions) and strategies (methods to achieve goals and objectives) to guide the Sustainability Action Plan, LTSC and implementing entity planning processes	Documented in Sustainability Action Plan	LTSC	LTSC informed by implementing entities, interested stakeholders and the Recommendations Briefing (which includes considerations from inventories and assessments, and Climate Action Database)	Once Annually	Implementing entities use the Tahoe Basin Sustainability Objectives and Strategies to inform their own objectives and strategies (e.g. CSLT Action Item Goals & Sustainability Plan Strategies, CTC Program Area Guidelines, EIP Priorities, TRPA Regional Plan Element & Subelement Goals & Policies, LTBMU Forest Plan Desired Conditions & Strategies & project planning)	<p>All existing Tahoe Basin implementing entity climate change strategies should inform the basin-wide sustainability strategies to leverage existing work and leverage synergies</p> <p>Climate Action Database should identify objectives and strategies by what actions are getting funding, what actions are not and what systems lack action ideas</p> <p>Seek synergies and analyze trade-offs between strategies and objectives</p> <p>Suggest developing a list of key issues related to each objective and strategy to effectively emphasize the primary barriers that implementing entities should plan to address</p> <p>Encourage implementing entities to assess existing projects, policies, plans and research</p> <p>Basin-wide strategies should become more defined over time as implementing entities adopt them, provide feedback on them and identify how to integrate them into their internal processes</p>

	Element	Title	Process Description	Products & Information	Leading Body	Decision Process	Timing of Process	Secondary Process & Parties	Resources, Examples & Considerations
Plan	D	Annual Sustainability Action Plan	Develop an annual report prior to the August event for external audiences (funding sources, public) that summarizes goals, objectives, actions implemented and the effectiveness of those actions, action and funding needs, and status and trends	Annual Sustainability Action Plan	LTSC	LTSC informed by implementing entities, interested stakeholders, the Recommendations Briefing (which includes considerations from inventories and assessments) and Action Identification and Action Inventory Databases	Once Annually	Implementing entities use the Sustainability Action Plan to inform internal planning processes (e.g. CSLT Action Item Prioritization Criteria, CTC Grant & Internal Project evaluation criteria, EIP project prioritization criteria, USFS project prioritization criteria); Community stakeholders use the plan to understand actions implemented and system vulnerabilities; and funding sources use the plan to understand action and funding needs	Actions that are selected or need funding should be grouped by the following categories to emphasize their value related to risk and cost: "no-regrets", "low-regrets" and "win-wins" PLANYC is a model sustainability plan because it includes the following elements: <ul style="list-style-type: none"> • Facts and figures from the sustainability assessment to illustrate the issues being addressed • Goals to set a vision and framework for the plan • Aggressive but achievable initiatives • Initiatives with clear implementation plans covering timing, funding, and responsibilities • Detail how the initiatives address the challenges • Matrix illustrating relationship of goals & initiatives • Monitoring and evaluation for tracking progress
	E	List of Key Local Monitoring & Research Needs	Update the prioritized list of local monitoring and research needs, documenting areas of uncertainty & risk, by Planning Focus Area	A ranked list of areas for investigation	LTSC - technical subgroups	Technical subgroups of the LTSC make prioritization recommendations for the overall LTSC to adopt and is informed by economists, scientists, implementing entities, interested stakeholders, the Recommendations Briefing (informed by inventories and assessments) and the Climate Action Inventory decision support tool	Once Annually	Implementing entities use key monitoring and research needs to inform monitoring, synthesis and research investments (e.g. TSC Lake Tahoe SNPLMA Project Nominations, TSC Science Program Key Uncertainties, Risks & Information Needs)	Reference the Tahoe Basin Climate Change Adaptation & Mitigation Action Inventory memo for guidance on using the Action Inventory tool, TSC Science Plan
	F	Commitment of Resources	Incorporate sustainability considerations in the prioritization of actions and allocate funding and staff time to implement actions	Implementing entity specific action plans that define how resources are allocated from specific funding sources and agency budgets	Implementing Entities	Implementing entities incorporate Tahoe Basin sustainability guidance (vision, goals, objectives, strategies, identified actions and needs) into the action prioritization and selection steps of their existing planning processes	Implementing Entity Planning Cycle (once annually recommended)		

	Element	Title	Process Description	Products & Information	Leading Body	Decision Process	Timing of Process	Secondary Process & Parties	Resources & Examples
Plan	G	Fund Key Local Monitoring & Research Programs	Fund local monitoring and research programs to answer targeted questions from the key areas of uncertainty and risk	Funding decisions, scopes of work, and specific experimental design documentation	Implementing Entities	Economists, scientists and implementing entity management develop scopes of work and secure funding, and are informed by the list of key local monitoring and research needs and input from program managers and researchers	Continuous		TSC Science Plan
Do	H	Implement Policies & Projects	Perform implementing entity activities	Products and information generated by activities such as design and planning documents, accounting for funding, explanatory information, monitoring plans and enforcement proceedings	Implementing Entities	Existing implementing entity processes	Continuous		
	I	Conduct Local Monitoring & Research	Perform local monitoring and research, and develop report of findings	Data and documentation including a final report that clearly states findings related to area of uncertainty and risk	Implementing Entities	Existing implementing entity processes	Continuous		Examples include local indicator monitoring (new local climate monitoring programs should be implemented because most existing monitoring systems were not designed for or provide comprehensive local climate monitoring), and developing and updating inventories
Check	J	Track Actions & Expected Results	Check and document completed versus planned activities, and completed versus planned results, report results through Sustainability Action Plan	EIP database (for actions related to natural system) and other project tracking systems with activity results	Implementing Entities	EIP reporting and other action reporting to cover actions not tracked by the EIP	Continuous - with an annual date for reporting information that will be included in the updated Sustainability Action Plan		

	Element	Title	Process Description	Products & Information	Leading Body	Decision Process	Timing of Process	Secondary Process & Parties	Resources & Examples
Check	K	Effectiveness Monitoring	Perform monitoring and document findings and outcomes	EIP database (for actions related to natural system) and other project tracking systems with activity monitoring outcomes	Implementing Entity	Existing implementing entity processes	Continuous		Effectiveness monitoring is critical to improving the effectiveness of invested public and private funds and increase the adaptive capacity of system. However, rigorous and conclusive effectiveness monitoring is resource intensive. Implementing entities are encouraged to implement effectiveness monitoring programs that monitoring a subset of actions in a manner so that the findings can be used to inform future selection and design decisions.
	L	Synthesize Findings & Action Effectiveness	Update the economic prosperity, community and environment health reports and decision tools to incorporate new research and science, which is evolving quickly is some resource areas, changes in the prioritization of system vulnerabilities and an evaluation of all actions related to the Sustainability Action Plan (actions include capital projects and policies, as well as training tools, public our reach plan and CEQA & NEPA guidance prepared by the framework. All of these actions should be evaluated improvement annually)	Sustainability Action Effectiveness Report	LTSC - technical subgroups	Technical subgroups of the LTSC guide the development of the report which draws information from the EIP Capital Program Assessment Report and EIP database (for performance data on actions related to natural systems), other project tracking systems (for performance data on non-natural systems), effectiveness monitoring studies and data, monitoring synthesis reports and data, research reports and other resources	Once Annually		Systematically incorporate the credibility of the science and likelihood of occurrence when assessing the confidence level of hazards and system responses "Impact thresholds" for vulnerable systems are recommended to inform goal and strategy development Reference Chapter 8 and 9 of the ICLEI-Local Governments for Sustainability Climate Resilient Communities Program guidebook (Preparing for Climate Change - A Guidebook for Local, Regional and State Governments) and the Science Synthesis developed by 2NDNATURE for the Climate Adaptation Planning Project in June 2010

	Element	Title	Process Description	Products & Information	Leading Body	Decision Process	Timing of Process	Secondary Process & Parties	Resources & Examples
Act	M	Recommendation Development	Evaluate available information and develop specific recommendations to change existing Tahoe Basin objectives, strategies and plans, and conceptual model/system vulnerability prioritization and action prioritization evaluation criteria	Recommendations Briefing	LTSC subgroup	A subgroup of the LTSC reviews all submitted Improvement Recommendations from implementing agencies and other stakeholders and develops a single set of recommendations. Individual recommendations are inform by the Sustainability Action Effectiveness Report and other decision-support tools which evaluate actions, analyses of public and proprietary action performance and effectiveness data, and new scientific findings	Once Annually	Implementing entities and other stakeholders provide specific recommendations from their experiences and other information sources	Reference the Tahoe Basin Climate Change Adaptation & Mitigation Action Inventory memo for guidance on using the Action Inventory tool
	N	LTSC Decisions	Action recommendations through adoption or rejection and use Sustainability Actions Inventory to identify future needs	Documentation of decisions and specific actions to execute decisions	LTSC	LTSC, informed by Recommendations Briefing, evaluates and identifies recommendations to execute	Once Annually		Reference Chapter 10 Section 4 of the ICLEI-Local Governments for Sustainability Climate Resilient Communities Program guidebook (Preparing for Climate Change - A Guidebook for Local, Regional and State Governments) for action selection and prioritization criteria Reference the Tahoe Basin Climate Change Adaptation & Mitigation Action Inventory memo for guidance on using the Action Inventory tool

	Element	Title	Process Description	Products & Information	Leading Body	Decision Process	Timing of Process	Secondary Process & Parties	Resources & Examples
Process Administration	O	Stakeholder & Public Engagement	Inform stakeholders and public of findings and engage stakeholders and public in the development of Tahoe Basin objectives, strategies and plans	Public Outreach Plan, reports, website and other communication methods to inform stakeholders and public, and documentation of stakeholder and public input	LTSC - communication and outreach subgroup	LTSC adjusts the Public Outreach Plan that drives stakeholder and public engagement	Continuous	Implementing Entities - incorporate sustainability messages and take on specific communication tasks in individual entity outreach materials	Reference Chapter 5 of the ICLEI-Local Governments for Sustainability Climate Resilient Communities Program guidebook (Preparing for Climate Change - A Guidebook for Local, Regional and State Governments) for identifying audience, developing message and informing stakeholders and public Reference California's CalAdapt for developing a website for informing the public of climate change risks and adaptation options, and consider using CalAdapt as part of the Tahoe Basin Public Outreach Plan Define stakeholder roles up front and for each step of the process and extend stakeholder participation to three priority groups: (1) representatives of the most vulnerable groups (e.g. health or property risk), (2) technical specialists, and (3) policy makers at the appropriate levels (local, regional, and/or national)
	P	Peer Review	Identify appropriate documents for peer review and coordinate peer review for proposals, study plans, reports and findings	Integrated peer review findings	LTSC	LTSC is responsible for identifying documents for peer review and coordinating peer review processes	Continuous		TSC Peer Review Guidance memo
	Q	Training	Develop training content, tools and plans	Video training modules and other training documentation	LTSC - ad hoc training subgroup(s)	LTSC commissions or convenes subgroups to develop training modules and ensures training content and tools are used to train resource managers, project designers and implementers	Continuous		Reference USFS Climate Change Resource Center for video training modules
	R	Document Control	Catalog and keep track of official documentation	Table of the current version of all documents and archive of all previous document versions	LTSC	LTSC is responsible for developing the document repository system and keeping it updated	Continuous		

	Element	Title	Process Description	Products & Information	Leading Body	Decision Process	Timing of Process	Secondary Process & Parties	Resources & Examples
Process Administration	S	Nonconformance, Preventive and Corrective Action	Use a description of expected actions, accomplishments and responsibilities to determine if the Sustainability Action Plan and related activities are being implemented and managed as desired and in a timely manner	Discussions and potentially LTSC meetings to address need for corrective actions	LTSC	LTSC is responsible for being aware, checking on actions, timelines and performance, and initiating the proper process to address issues	Continuous		
	T	Auditing Framework	Review operations for effectiveness and compliance with protocols, develop a report with findings and review findings with LTSC	Report and discussions	LTSC - audit subgroup	LTSC is responsible for initiating the audit and reviewing the findings	Once Annually		
Tools	U	Tools	Support collaboration, tracking, prioritizing and reporting of projects, policies, research and monitoring	Decision-support tools for performing initial rough screen of potential policies, projects, research and monitoring	LTSC	LTSC is responsible for developing, maintaining and ensuring the accessibility to the necessary tools	Continuous		Reference memo "Tahoe Basin Climate Change Action Identification and Action Inventory Databases" for overview, purpose, use and evaluation criteria and result detail for Action Identification and Action Inventory Databases Reference ICLEI website (http://www.icleiusa.org/action-center/tools/cappa-decision-support-tool/) for ICLEI Climate and Air Pollution Planning Assistant (CAPPA) decision-support tool use and download

Appendix II: Sustainability Term Glossary

The terms below are used throughout sustainability literature and the Tahoe Basin Sustainability Planning Guidebook.

Term	Definition	Most Similar Source
Adaptation	Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which minimizes harm or exploits beneficial opportunities.	Hybrid CA CAS & USFS
Adaptive capacity	The ability of a system to respond to climate change (including variability and extremes), to moderate potential damages, to take advantage of opportunities, and to cope with the consequences.	CA CAS & USFS
Baseline	The baseline is any datum against which change is measured. A “current baseline” represents observable, present-day conditions. A “future baseline” is a projected future set of conditions excluding the driving factor of interest.	CA CAS
Climate Change	Any long-term change in average climate conditions in a place or region, weather due to natural causes or as a result of human activity.	CA CAS
(Climate Change) Impacts	The detrimental and beneficial effects of climate change on the structure or function of a system.	Hybrid USFS & IPCC 2001
Climate Variability	Variations in the mean state of the climate and other statistics (such as standard deviations, the occurrence of extremes, etc.) on all temporal and spatial scales beyond that of individual weather events.	CA CAS, USFS & IPCC 2001
Decision-support Tools	Information systems that improve decision efficiency and effectiveness.	Project Team
Implementation Tools	The authorities and/or avenues over which your governing body has control or influence in policy, planning and infrastructure.	ICLEI
Low-regrets Policy	Low-cost policies and actions that have potentially large benefits under climate change scenarios.	PEW Center on Global Climate Change
Maladaptation	Adaptation actions that inadvertently increase vulnerability of natural or human systems to climatic stimuli.	USFS
Mitigation	A human intervention to reduce the sources or improve the uptake (sinks) of greenhouse gases.	CA CAS
No-regrets Policy	A policy that would generate net social benefits with or without climate change.	CA CAS
Planning Focus Areas	The areas in which an entity manages, plans or makes policy affecting the services and activities associated with built, natural and human systems.	ICLEI
Resilience	The ability of a system to absorb some amount of change, including shocks from extreme events, and recover from them to be able to function and provide essential services and amenities that it has evolved or been designed to provide.	CA CAS
Risk	The possibility of interaction of physically defined hazards with the exposed systems. Risk is the likelihood of an event multiplied by its consequences.	CA CAS
Sector	A general term describing any resource, ecological system, management area, or other area of interest that may be affected by climate change.	ICLEI

Sensitivity	The degree to which a system is affected, either beneficially or adversely, by climate-related stimuli.	IPCC, 2001
Sustainability	Improving the quality of human life while living within the carrying capacity of supporting ecosystems.	IUCN, UNEP, WWF 1991
System	The built, natural and human networks that provide important services or activities.	ICLEI
Triple Bottom Line	The expanded version of traditional reporting to include ecological and social performance in addition to financial success.	UN Brundtland Commission
Uncertainty	An expression of the degree to which a value is unknown.	UNDP
Vulnerability	The susceptibility of a system to harm from climate change. Vulnerability is a function of a system's sensitivity to climate and the system's adaptive capacity.	ICLEI

Appendix III: Develop & Deploy Item Tracking

The Develop & Deploy Item Tracking spreadsheet below is an example tool to track all projects that have been commissioned to address the items in the Sustainability Planning Guidebook selected by the LTSC and identify gaps that need to be filled in order to complete the develop and deploy steps. This spreadsheet below is an example structure, the content is current as August 21, 2011 and it has not been vetted thoroughly. The tool is recommended to be a living document and maintained by the LTSC.

A living table containing this task management information is expected to be maintained by the LTSC							
	Status Option List: Not started, Funding requested, Partially funded, Partially in-progress, Partially complete, Funded, In-progress, Complete						
PHASE	DURATION	ITEM	STATUS	(PONTIAL/SECURED) FUNDING SOURCE/ LEAD	EST. UNFUNDED COST	PROGRESS/NEED DESCRIPTION	
Phase 1: Create Managing Body, Define Purpose & Gain Support	3 months	1. Create LTSC	Funded	SGC/TPC			
		2. Define Decision-Making Process	Funded	SGC/TPC			
		3. Define Mission & Guiding Principles	Funded	SGC/TPC			
		4. Gain Support of Participating Implementing Entities	Funded	SGC/TPC			
		5. Identify LTSC Coordinator & Sustainability Champion	Partially funded	SGC/TPC	?		
		6. Select Planning Focus Areas	Funded	SGC/TPC			
Phase 2: Define Roles & Operations	6 months	7. Define Ongoing Implementation, Planrning & Reporting Process	Partially funded	SGC/TPC	\$150,000	The SGC funded project will implement the develop and deploy steps in the Sustainability Planning Framework, which will inform the ongoing implementation, planning and reporting process, but the continual improvement process needs to be clearly defined through a collaborative process and thoroughly documented in a useable guidance document.	
		8. Define Initial Vision, Objectives & Strategies	Funded	SGC/TPC			
		9. Develop Public Outreach Plan	Funded	SGC/TPC			
		10. Develop Initial Tahoe Basin Sustainability Action Plan	Partially in-progress	TRPA/Nelson & Nygaard Consulting		SB 375 planning and products, including Sustainability through Mobility handbook, transportation PMs, strategy evaluation tool, strategies for Regional Plan and a public participation plan. The project will be finished ?.	
				CTC/Consultant	\$50,000	The initial basin-wide Sustainability Action Plan needs to be commissioned.	
				CTC/UC Davis		UC Davis will inventory GHG emissions of all stationary sources in the Tahoe Basin, the project will begin in the fall of 2010 and finish ?.	
						The mobile sources will still need to be inventoried.	
		11. Commission Assessments and Inventories	Partially in-progress	SGC/TPC		TPC consulting team will lead the health impact, housing and livability assessments for 3 communities in the Tahoe Basin, one each for selected areas in the City of South Lake Tahoe, Placer County and El Dorado County.	
				TSC/TSC		The TSC is developing a strategy to address key uncertainties and information gaps in climate research related to the Tahoe basin, the strategy is expected to be complete by ?.	
Phase 3: Build Out Products & Supporting Tools	Over first 1 to 2 years of operation	12. Develop Sustainability Action Plan Evaluation Metrics & Targets	Partially funded	SGC/TPC	\$150,000	The SGC funded project will develop PMs, Indicators Monitoring Plan and Accounting System; however with a \$50,000 budget it is likely that substantial effort will still be required to make the tools usable and comprehensive.	
		13. Develop Monitoring Plans	Partially funded	SGC/TPC	\$150,000	The SGC funded project will develop PMs, Indicators Monitoring Plan and Accounting System; however with a \$50,000 budget it is likely that substantial effort will still be required to make the tools usable and comprehensive.	
		14. Develop Policy Guidelines	Not Started	CTC/TIE-SC	\$25,000		
		15. Develop Decision-Support Tools	a) Climate Action Database	In-progress	U.S. ACOE/Environmental Incentives	\$40,000	EI is developing a decision-support tool for agency staff to efficiently perform a rigorous evaluation of adaptation and mitigation actions, as well as capture actions already started in the basin. This project will be completed by January, 2011.
			b) Tracking and Accounting System	Partially funded	SGC/TSC	\$50,000	The SGC funded project will develop PMs, Indicators Monitoring Plan and Accounting System; however with a \$50,000 budget it is likely that substantial effort will still be required to make the tools usable and comprehensive.
			c) Community Sustainability Toolkit	Complete	SGC/Sierra Nevada Alliance	\$25,000	Sierra Nevada Alliance will develop a Community Sustainability Toolkit to build capacity of Sierra Nevada communities to collaboratively develop their own sustainability plans.
		16. Develop Training Modules	Not Started				
Other Items Addressing Tahoe Basin Climate Change Needs		Tahoe Livable Community Plans	Partially funded	SGC/TPC	\$200,000	Consultants will develop a plan and implementation strategies for 3 communities on the California side of the basin, so funding is needed for other communities after the framework is developed.	
		North and South Shore Sustainability Visions & Frameworks	Funded	SGC/TPC			
		Basin-wide Economic Prosperity Strategy	Complete	North and South LT Chambers of Commerce & Western Nevada Development Department/Consultants		Consultants developed a basin-wide economic prosperity strategy that seeks to transform the basin's declining casino-based economy into a vibrant, ecotourism and green business-based economy.	

Appendix IV: Sustainability Planning Guidebook Integration with Local Planning Process Matrix

The Sustainability Planning Guidebook Integration with Local Planning Process Matrix demonstrates the recommended use and benefits of the Sustainability Planning Guidebook by a subset of local planning processes.

Tahoe Basin Sustainability Planning Framework (SPF) Components	Integration of Sustainability Planning Framework with Subset of Local Planning Processes					
	City of South Lake Tahoe (CSLT)	California Tahoe Conservancy (CTC)	Environmental Improvement Program (EIP)	Tahoe Regional Planning Agency Regional Plan	North/South Shore Chambers of Commerce	Heavenly Mountain Resort
Sustainability Action Plan (SAP) - Vision and Goals - Objectives - Strategies - Sustainability Needs	SAP is informed by informs CSLT Sustainability Plan Strategies and work plan action goals	SAP is informed by and informs CTC objectives and Program Area Guidelines	SAP is informed by and informs EIP Priorities and Science Program Priorities	SAP is informed by and informs Regional Plan Element and Subelement Goals and Policies	SAP is informed by and informs regional economic development initiatives	SAP is informed by and informs Heavenly Master Plan and project prioritization
SPF Products - Assessments - Inventories - Climate Science Synthesis - Action Effectiveness Report	SPF products inform work plan action development and prioritization criteria	SPF products inform action design (internal)/selection (external) and evaluation criteria	SPF products inform design of actions submitted and evaluation criteria	SPF products inform policy development and evaluation criteria	SPF products inform management and advocacy priorities	SPF products inform work plans and management actions
Key Local Monitoring & Research Needs	n/a	Needs inform monitoring and research action design (internal)/selection (external) and evaluation criteria	Needs inform Science Program Priorities	Needs inform Monitoring and Evaluation program development priorities	n/a	Needs inform Heavenly Master Plan monitoring priorities
Recommendation Development	CSLT recommendations improve basin-wide sustainability guidance and tools	Conservancy recommendations improve basin-wide sustainability guidance and tools	EIP partner recommendations improve basin-wide climate change guidance and tools	Regional update staff recommendations improve basin-wide climate change guidance and tools	Chambers of Commerce recommendations improve basin-wide sustainability guidance and tools	Heavenly Resort recommendations improve basin-wide sustainability guidance and tools
Stakeholder & Public Engagement	Stakeholders inform Sustainability Plan Principles and Strategies, and work plan action development and prioritization criteria	Stakeholders inform Program Area Guidelines and action development (internal)/selection (external) and evaluation criteria	Stakeholders inform EIP Priorities, Science Program Priorities and action evaluation criteria	Stakeholders inform Regional Plan Goals and policy development and evaluation criteria	Stakeholders inform economic initiatives and strategies for local businesses	Stakeholders inform capital improvement work plans and long-term visioning
Training	Training educates City staff on sustainability issues	Training educates Conservancy staff on sustainability issues	Training educates EIP partner staff on sustainability issues	Training educates TRPA staff on sustainability issues	Training educates Chambers of Commerce and local businesses on sustainability issues	Training educates Heavenly staff on sustainability issues
Tools	Tools support City staff decision-making	Tools support Conservancy staff decision-making	Tools support EIP partner staff and EIP program staff decision-making	Tools support TRPA staff decision-making	Tools support Chamber of Commerce staff and local business decision-making	Tools support Heavenly management staff decision-making

Memorandum

To: Michael Ward, Eoin Dougherty
From: Jeff Goldman
CC:
Date: Revised October 9, 2012
Subject: Tahoe Livable Community Health, Impact, and Livability Assessment Product Definition

The purpose of this memo is to identify and distill key livability principles contained in a wide variety of regional and local strategic planning and vision documents, connect these principles to goals and objectives of Tahoe Livable Community plans as a foundation for regional and local sustainability, and engage with community members and stakeholder groups to validate these principles. The concept of “livability” is relevant to the pilot communities but also feeds into the greater regional sustainability framework. This memorandum provides an understanding of the key aspects of “livable communities” in the Tahoe Basin that will inform the selection of relevant data to measure the existing livability baseline among the three pilot communities.

This document will also serve as a basis for identifying data that can be used to establish a livability baseline, regionally and locally, based on these principles, major issues, opportunities, and challenges (barriers) to achieving “livability” in the Basin. It should also be useful for selection of relevant indicators in the Tahoe Basin along with the Regional Plan Update, Environmental Improvement Program and recommendations from the Collaborative and stakeholders.

Also, when considering quality of life, it is important to understand that it is influenced by many factors such as education, employment, housing, pollution and safety, as well as factors such as climate change, green infrastructure, sustainability, and ecosystem resilience.

The development of livability principles has been informed by plans and public input from both the community and regional levels. Specifically, the identification of key definitions of livable communities is based on input gathered at community meetings as part of the Lake Tahoe Sustainable Communities Program stakeholder engagement, community plans, the Tahoe Regional Plan update, and other strategic planning or visioning documents that address livability. This allows each community to decide which principles to emphasize and how they might adjust the principles to reflect local context.

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The recommended Lake Tahoe Basin (Basin) and community “livability” definitions will also be discussed with reference to the six *Federal Livability principles*, to ensure they capture the essence of those principles and *Pathway: A Vision for Tahoe’s Future*⁴.

The discussion in this memo is organized in the following manner:

- Regional and Local Framework for Livability
- Livability Definition for the Tahoe Basin
- Livability Principles for the Region and the Three Pilot Communities
- Next Steps

Regional and Local Framework for Livability

Generally, community “livability” focuses on high quality of life, multi-modal and connected neighborhoods, improved community health⁵ and a vibrant economic base. In the Basin, the understanding of what comprises a “livable community” may have some variation based on the specific needs of the community. Because livability relates to the human condition and experience, it should address economic prosperity, including income levels that allow workers the ability to live in the Basin and business opportunities that allow local businesses to thrive.

However, the various regional plans that guide development and conservation in the Basin bear testimony to the fact that ultimately “livability” in the region depends on how the quality of life of residents and visitors of all age groups and physical abilities is enhanced by easy access to affordable quality housing, transportation, and recreation.

Goals, visions, and objectives mentioned in the various regional documents, such as the Tahoe Regional Planning Agency (TRPA) Regional Plan Update, Lake Tahoe Basin Prosperity Plan, city and county general plans and various community plans were reviewed to understand both regional and local perspectives and preferences guiding development in the Basin. Throughout these documents and other materials that were reviewed, the following six recurring principles are present and appear to highlight a general sense of agreement regarding critical factors that contribute to livable communities and a sustainable region:

- **Unique natural environment** – Both Tahoe residents and visitors take immense pride in the stunning natural beauty that the Basin offers and the communities are dedicated to reduce deterioration of this iconic natural resource, preserve the significant scenic quality of the Basin, and enhance the ecological environment.
- **Year-round recreation** –The Lake, the mountains, and other attractions provide a variety of indoor and outdoor recreational opportunities throughout the year for residents and the great numbers of visitors drawn to the Region. This also provides a huge opportunity to increase tourism while attracting industries whose owners and employees value the natural setting of the Tahoe Basin.

⁴ May 2007 Regional Vision Summary

⁵ Includes environmental health, such as clean air, water, and urban ecosystems, and public health.

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- **Sustainable local economy** – Although the Basin offers many economic development opportunities, in recent years the region has suffered due to market conditions. In addition, the Basin's economy has been dominated by seasonal businesses. However, the ingredients for successful economic development are all present in the area. Therefore, as the *Prosperity Plan* pointed out, some innovative efforts to create greater regional and local sustainability, including green tourism, green building and infrastructure, sustainable design, scientific research and applications for environmental resource renewal and management, renewable energy, and health and wellness can pay dividends to the local economy. An emphasis should also be placed on diversifying the region's economic base beyond seasonal tourism, including recruiting more year-round businesses, developing programs to keep seasonal employees year-round, and reducing dependence on economic activity associated with second home owners.
- **Balanced mix of land uses** – All the planning jurisdictions in the Basin agreed that sprawling development has adverse impacts on both a community's social health and environment. Therefore, growth in the Region needs to be balanced with the communities' interest in creating vibrant social centers, along with the rural lifestyle. An appropriate mix of land uses will also help in creating more walkable and bikeable communities by promoting residential uses close to daily destinations.
- **Diverse range of housing** – There is a regional need for a diverse range of housing and lodging choices that cater to year-round residents and workers, visitors of all age groups, physical ability and economic levels.
- **Connected transportation system** - A connected multimodal transportation system will allow efficient and safe transportation choices to residents and visitors that will also reduce traffic congestion and adverse impacts on the environment.

Although community health was not explicitly mentioned in many of the materials we reviewed, embedded in the six principles are themes that contribute to community health, including social interaction and gathering places, pursuit of active lifestyles, access to healthy foods and other goods and services that support health, enjoyment of nature, recreation, affordable housing, incomes that support workers' ability to live in the Basin, and a sustainable local economy.

In May 2012, community workshops were held for North Tahoe East Plan Area, North Tahoe West Plan Area, West Shore, Tahoe City, and Meyers. During these workshops, community members discussed what they liked or disliked about the community, how they would like to see the community grow over the next 20 years, and what unique values and assets need to be protected. For all the communities the recreational opportunities and the rural mountain charm that the community offered were among the top preferences. Some of the challenges that were consistently discussed at each of the community workshops were affordability, people-friendly connected street networks, deteriorating local economy and access to the Lake. Although each area created their own vision statement for the respective community, a majority of the workshop members agreed on the importance of the following factors in improving community livability:

- **Transportation alternatives** – Provision of efficient multi-modal alternatives to driving single-occupancy vehicles, such as transit, pedestrian and bike access, seemed to be one of the highest priorities for the communities. Most of the workshop attendants agreed that improving infrastructure for walking and biking would provide residents and visitors with a low cost alternative to reach their destinations, including safe walkable and bikeable alternatives. There

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was also discussion regarding preferences for creating transit hubs that can also serve as social gathering places.

- **Housing affordability** – Due to the prevalence of second home ownership and the vacation rental market, costs of housing has been very high relative to what workers can afford to pay. This has led to residents and the workforce moving to the outskirts of the Basin and commuting into the Basin every day, resulting in rising commute costs. Therefore, increased housing affordability and diverse housing stock that caters to all economic segments of the community will help in reducing adverse impacts to the environment that result from increased traffic congestion, and will help revitalize the local economy by bringing people back into the declining communities.
- **Recreational access** – Overwhelmingly the community members agreed they enjoyed being in an area with many recreational opportunities. Enhancing access to the Lake and regional recreational sites and providing affordable recreation choices was of interest to all the communities.
- **Environmental and visual quality** – Community members agreed that high quality environmental performance was the key to maintaining the uniqueness of the region. Scenic vistas were also important to the communities. Some of the ideas for maintaining high visual quality in the basin included moving the parking areas along the lake across the road to be adjacent to the commercial areas, and keeping vistas to the Lake uninterrupted by removing overhead power lines.
- **Economic revitalization** – Balancing the needs for commercial and residential uses to ensure that employment centers and neighborhood retail are in close proximity to residential areas encourages small businesses that primarily serve local consumers (residents and workers). Workshop attendants also wanted to ensure commercial activities support the needs of visitors to the communities to stimulate local economic growth.
- **Community identity and a sense of place** – The Basin communities take pride in their historic and cultural diversity. Therefore, maintenance of the rural mountain architectural charm along with each community's unique identity was of importance to the community members. The community members also discussed the need to foster social interaction that would also help in promoting a sense of place for each community.

Livability Definition for the Tahoe Basin

In addition to the community preferences discussed at the community workshops on the various community plans and the TRPA Regional Plan Update, a consensus definition of “livability” for the Basin that aligns with the six federal livability principles proposed in 2009 by the Partnership for Sustainable Communities (a collaboration among the U.S. Department of Housing and Urban Development, U.S. Department of Transportation, and the U.S. Environmental Protection Agency) emerged. The Partnership defines “livability” in communities as improved access to affordable housing, increased transportation choices, and lowered transportation costs that, in turn, protect the environment, specifically:

1. ***Provide more transportation choices*** to decrease household transportation costs, reduce dependence on oil, improve air quality and promote public health.

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2. **Expand location and energy-efficient housing choices** for people of all ages, incomes, races and ethnicities to increase mobility and lower the combined cost of housing and transportation.
3. **Improve economic competitiveness of neighborhoods** by giving people reliable access to employment centers, educational opportunities, services and other basic needs.
4. **Target federal funding toward existing communities** through transit-oriented development and land recycling to revitalize communities, reduce public works costs, and safeguard rural landscapes.
5. **Align federal policies and funding** to remove barriers to collaboration, leverage funding and increase the effectiveness of programs to plan for future growth.
6. **Enhance the unique characteristics of all communities** by investing in healthy, safe and walkable neighborhoods, whether rural, urban or suburban.

Except for principle #4 (target federal funding), these livability principles address many of the same issues that appeared in community meeting notes and various community planning documents within the Basin. According to the Partnership, the federal principles are guided by the thought process that “incorporating livability approaches into transportation, land use, and housing policies can help improve public health and safety, lower infrastructure costs, reduce combined household transportation and housing costs, reduce vehicle miles traveled, and improve air and water quality, among many other benefits.”

Also important is Tahoe’s regional equivalent to these federal livability principles, embodied in the May 2007 *Tahoe Basin Regional Vision Summary* (Pathways 2007). According to this regional visioning summary, the overall sustainability planning concepts are:

1. Strengthen gathering places and economic centers.
2. Improve mobility, an enhanced travel experience, and a variety of transportation options.
3. Provide a variety of housing and lodging choices to meet the needs of residents and visitors.
4. Improve recreation opportunities.
5. Restore degraded watersheds, habitats, and other important natural areas.

The Pathway 2007 planning principles, in combination with the federal livability principles and concepts embedded in local plans, inform both a basin-wide (regional) definition of livability and local variations of the regional definition based on the unique characteristics and concerns of communities within the Basin.

Therefore, while a livability definition for the Basin should reflect the unique characteristics of the Region and its priorities, it can also align with state and federal guidance for environmental, community and economic development, housing, and transportation planning programs that seek to improve quality of life, environmental performance, and economic vitality. Consistent with the California Strategic Growth Council grant that is funding the Lake Tahoe Sustainable Communities Program planning process, livability principles should also address increasing long-term resilience of natural and built environments in the Basin in the face of climate change. Based on the community priorities and policy guidance

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contained in the Regional Plan Update, we propose the following regional and local livability principles for the Tahoe Basin.

Regional Livability

- ***Protect, restore, and enhance the diverse natural ecosystems, and other resources*** in the Lake Tahoe Basin and its communities to maintain a healthy balance between human (built) and natural environments that make the Basin a unique and special place.
- ***Foster a sense of community that maintains the richness of everyday life*** by preserving the historical, architectural, and cultural identity of the community that is linked to the Basin's environmental values, creating public spaces for social gathering and interaction, and improving the distribution of community and social services through regional-municipal collaboration and cooperation.
- ***Enhance recreational opportunities and choices*** that take advantage of the Basin's unique natural beauty while protecting it for future generations, providing easy access to the Lake and other regional destinations, and offering multiple options for all community members to be physically active.
- ***Provide diverse housing / lodging choices*** that meet the needs of residents, workers, and visitors of all physical and economic abilities and that recognize the seasonal, visitor-oriented nature of many businesses in the Basin.
- ***Promote a connected multimodal transportation network that increases travel choices within, to, and from the Basin*** that reduce traffic congestion, lower household transportation costs, and encourage walking and biking to local destinations by residents, workers, and visitors.
- ***Support a vital regional and local economy*** by balancing the needs of commercial and residential areas, building on local visitor attractions, maintaining Lake Tahoe as an exceptional place where communities thrive in harmony with the natural environment, promoting greater renewable energy use, use of locally grown food sources, and better integrating Tahoe into a larger regional economy that includes Truckee, Reno, and Carson City.
- ***Promote a high quality of life*** by increasing opportunities for improved public health, education, and job opportunities; enhancing the social wellbeing and economic equity of Lake Tahoe's communities; and building greater economic and ecological resiliency into the Tahoe Basin through energy, water, and other natural resources conservation.

Community Livability

South Lake Tahoe

- ***Protect, restore, and enhance the diverse natural ecosystems and other resources*** in South Lake Tahoe and improve the Lake's water clarity to maintain a healthy balance between human (built) and natural environments that make the Basin a unique and special place.

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- ***Foster a sense of community that enhances the Highway 50 corridor as the heart of the community*** by creating an interconnected series of compact mixed-use districts that serve the needs of residents and visitors.
- ***Enhance recreational opportunities and choices*** that attract nature lovers, sport enthusiasts, and families through numerous recreation and lodging options, ecotourism destinations, and multiple businesses that highlight the natural and cultural environment of South Lake Tahoe.
- ***Provide diverse housing and lodging choices*** that meet the needs of residents, workers, and visitors of all physical and economic abilities that recognize the seasonal, visitor-oriented nature of many businesses, that preserve and enhance the existing supply of housing, and that provide a sustainable and walkable environment in proximity to local businesses, services, and neighborhood centers.
- ***Promote a connected transportation network and Highway 50 as a multi-modal corridor*** with diverse options for convenient travel within the City, to surrounding communities, and regionally; to encourage walking and biking to local destinations; and to provide transit centers that also serve as social gathering places.
- ***Support a vital local economy through transformation of the Highway 50 corridor*** and public-private cooperation to achieve a prosperous and healthy region; diverse locally-owned businesses that offer good wages, services, and amenities to the community and visitors; and an economic base driven by creative, environmentally-sound, and “green” businesses.
- ***Promote a high quality of life*** by increasing opportunities for improved public health, fire-safe open spaces and built environment, education and job opportunities, and enhanced social wellbeing of South Lake Tahoe residents and workers.

Tahoe City

Page 7 (Tahoe City) Support a vital local economy:

- ***Protect, restore, and enhance the Stream Zone, lakeshore, and other natural environments*** to maintain a healthy balance between humans and nature, provide scenic corridors and vistas that make the Basin a unique and special place, and provide opportunities for residents and visitors to enjoy natural settings.
- ***Foster a sense of community and place based on Tahoe City status as the oldest community in the Basin*** by preserving its diverse architecture and cultural identity, providing a scenic, unifying character in harmony with nature, open vistas and unique landscapes, and public gathering spaces for social interaction focused on the lakeshore.
- ***Enhance recreational opportunities and choices for the permanent population and visitors*** based on Tahoe City's location at the headwaters of the Truckee River, provide easy access to the lake, integrate recreational activities into the community, and provide multiple options for all community members to be physically active.
- ***Provide diverse housing and lodging choices*** that meet the needs of residents, workers, and visitors of all physical and economic abilities and that recognize the seasonal, visitor-oriented nature of many businesses in Tahoe City.

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- **Promote a connected multimodal transportation network that increases travel choices within Tahoe City and surrounding communities**, including a well-connected trail system and improved water and land transit that reduce traffic congestion, lower household transportation costs, and provide more opportunities for walking and biking by residents, workers, and visitors.
- **Support a vital local economy** by promoting waterfront redevelopment / revitalization along the lakefront and the Truckee River that promotes economic development, improves access, and enhances viewsheds, and maintaining the lake as an exceptional place where Tahoe City can thrive in harmony with the natural environment.
- **Promote a high quality of life** by increasing opportunities for improved public health, education, and job opportunities and enhancing the social wellbeing of Tahoe City residents.

Meyers

- **Protect, restore, and enhance the diverse natural ecosystems and other resources** in the Meyers area by maintaining a healthy balance between human (built) and natural environments, and connecting the community to surrounding natural areas that make Meyers a unique and special place.
- **Foster a sense of community and appreciation of history as the southern gateway to the Basin and Pony Express way station** by preserving Meyer's historical, architectural, cultural identity, environmental and recreation values, and creating linkages to public spaces for social gathering and interaction on both sides of Highway 50.
- **Enhance recreational opportunities that take advantage of surrounding spectacular mountain vistas** while protecting it for future generations, fostering an outdoors community ethic that thrives in harmony with the natural environment, and providing easy access to area recreation amenities that offer multiple options for all Meyers residents to be physically active.
- **Provide diverse housing and lodging choices** that meet the needs of residents, workers, and visitors of all physical and economic abilities that recognize the seasonal, visitor-oriented nature of many businesses, that preserve and enhance the existing supply of housing, and that provide a sustainable and walkable environment in proximity to local businesses, services, and neighborhood centers.
- **Promote a safe, connected multimodal transportation network that increases travel choices while connecting both sides of Meyers**, reducing traffic speeds through the community, lowering household transportation costs, and encouraging walking and biking to local destinations by residents, workers, and visitors.
- **Support a vital local economy** by balancing the needs of commercial and residential areas, building upon the sense of community by business owners, and promoting south shore visitor attractions, many opportunities to access nearby outdoor recreation, and the upper Truckee River.
- **Promote a high quality of life** by enhancing public health, education, mountain culture, and job opportunities and the social well-being of Lake Tahoe's communities.

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Next Steps

ONCE THERE IS AGREEMENT ON A DEFINITION OF LIVABILITY AND ITS COMPONENTS, THE NEXT STEPS ARE TO: 1) DEVELOP SPECIFIC OBJECTIVES UNDER EACH PRINCIPLE THAT WOULD HELP TO TIE THESE PRINCIPLES DIRECTLY TO INDICATORS OF PROGRESS TOWARD LIVABILITY, AND 2) IDENTIFY DATA POINTS BASED ON THESE OBJECTIVES TO ASSESS BASELINE LIVABILITY CONDITIONS REGIONALLY AND IN THE PILOT COMMUNITIES TO MONITOR PROGRESS TOWARD ACHIEVING LIVABILITY. BELOW ARE EXAMPLES OF DATA THAT MAY BE COLLECTED. THIS IS NOT AN EXHAUSTIVE LIST, NOR DOES IT CAPTURE ALL OF THE SPECIFIC DATA POINTS THAT MAY BE RELEVANT REGIONALLY OR LOCAL. THE FOCUS SHOULD BE ON READILY AVAILABLE DATA IN THE PUBLIC REALM (FROM TMPO, COUNTY HEALTH DEPARTMENTS, CENSUS BUREAU, ETC.) SO AS NOT TO CREATE AN UNDUE BURDEN ON AGENCY STAFF RESPONSIBLE FOR USING THE DATA TO MONITOR PROGRESS TOWARD ACHIEVING SUSTAINABILITY.

The livability baseline assessment will need to specify the procedures and methods by which a policy or program may be judged as to its effectiveness in achieving livability outcomes (targets) based on measures or indicators that derive from the livability principles. The assessment will need to establish the framework for this analysis so that it can be repeated periodically to ensure that indicators are the right ones to measure progress and whether sustainability actions are affecting the indicators. The framework should also identify who will monitor use of the indicators, how local indicators and monitoring can “roll up” to regional indicators and progress, and criteria for using community-specific indicators.

Environmental Sensitivity/ Resources

- Water quality (lake / tributaries)
- Forest, stream environments, and other habitat health
- Invasive Plants
- Endangered species
- Full-time vs. part-time residents
- Housing cost / affordability
- Housing problems (overcrowding, condition, overpayment)
- Vacancy rates
- Housing stock available for year-round occupancy

Community / Social Engagement

- Number of and character of community gathering places
- Number of community events and participation
- Number and type of community organizations and institutions

Outdoor Recreation

- Access open space / recreation lands and facilities (Lake, recreation, public places, civic amenities)
- Usage of recreation areas

Housing Diversity

- Rental vs. ownership

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Transportation Choices

- Vehicle miles traveled
- Travel mode (vehicle, transit, pedestrian, bicycle)
- Miles of bicycle and pedestrian facilities by type
- Miles of sidewalks tracked against miles of streets
- Bicycle and pedestrian connectivity
- Bicycle and pedestrian safety
- Number of cycling events and participation (i.e. bike valet, slow rollers, education opportunities)
- Increased frequency of transit service between Tahoe, Sacramento, and the Bay Area

Regional / Local Economy

- Jobs by industry sector and type
- Employment / unemployment rate
- Tax base (property, retail sales, other)
- Percent of residents who work in the Basin
- Commercial vacancy
- Commercial building condition
- Median HH / per capita income
- Educational attainment
- Availability of adult education / skills training
- Seasonality: year-round vs. season employment.

Appendix A

Reference Materials Reviewed

1. 1987 TRPA Regional Plan and 2011 Draft Regional Plan Update
2. 2010 Lake Tahoe Basin Prosperity Plan
3. 2004 El Dorado County General Plan
4. 1994 Placer County General Plan
5. 1994 Placer County General Plan
6. 2011 Washoe County Master Plan
7. 2011 City of South Lake Tahoe General Plan
8. 1995 Bijou/Al Tahoe Community Plan
9. 1993 Meyers Community Plan
10. 1993 Stateline Community Plan
11. 1994 Stateline/ Ski Run Community Plan
12. 1994 Tahoe City Community Plan
13. 2010 Final Report of Sustainability Measures Lake Tahoe Watershed, Nevada & California
14. 2007 Pathway 2007 Evaluation Report
15. Community workshop minutes:
 - a. North Tahoe East
 - b. North Tahoe West
 - c. Tahoe City
 - d. West Shore
 - e. Meyers Community Identity Workshop
16. Community vision statements:
 - a. North Tahoe East
 - b. North Tahoe West
 - c. Tahoe City
 - d. West Shore
17. Federal livability principles HUD portal at
http://portal.hud.gov/hudportal/HUD?src=/program_offices/sustainable_housing_communities/Six_Livability_Principles)