



LAKE TAHOE BASIN PROSPERITY PLAN

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Prepared for
The Western Nevada Development District
On Behalf of the
Lake Tahoe Basin Prosperity Plan Steering Committee



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ABSTRACT

Despite its idyllic natural environment, the Lake Tahoe Basin has suffered significant economic decline over the past decade. This has not only created social and fiscal dislocations in the region, but also threatens to hamper efforts to improve lake clarity and other environmental values in the Basin. The Lake Tahoe Basin Prosperity Plan (Prosperity Plan) was developed to address these challenges.

The economic analysis conducted for the Prosperity Plan identified three economic clusters comprising two-thirds of the Basin economy – Tourism and Visitor Services, Environmental Innovation, and Health and Wellness. Led by a diverse project steering committee representing all of the local government jurisdictions in the Basin as well as business associations and education institutions, the process to develop the Prosperity Plan engaged hundreds of stakeholders in the region, convening work groups within each economic cluster, as well capital resource partners, community leaders, state and federal agency representatives, and regional economic collaboratives from both California and Nevada..

The central recommendation in the Prosperity Plan is the formation of the Tahoe Prosperity Center, based on a regional stewardship model, to serve as an organizational focal point for implementing initiatives promoting economic cluster expansion as well as addressing a number of foundational issues essential to the success of the cluster initiatives. One of these key foundational issues is the fact that economic success in the Basin is directly related and linked to more predictable and consistent regulatory processes than is currently administered by the Tahoe Regional Planning Agency (TRPA) and other agencies, one that would encourage redevelopment and reinvestment. Without this predictability and consistency, implementation of the actions related to the economic cluster initiatives cannot be fulfilled.

The Prosperity Plan includes action steps for the following cluster initiatives. **Environmental Innovation:** Commercialization of environmental research applications, including a business incubator and investment fund; A coordinated Basin-wide green business program; Regional renewable energy systems. **Tourism and Visitor Services:** New visitor itineraries focused on outdoor activities, natural amenities, environmental education, and geotourism; Rebranding the visitor experience to focus on environmental quality, health and wellness, and recreation activities; Environmental redevelopment to improve the built environment. **Health and Wellness:** Specialized centers of excellence including orthopedics and oncology; Sports and fitness training; Wellness centers integrated with new visitor itineraries for fitness and recreation.

The Prosperity Plan process has led to several tangible outcomes: the first economic cluster-based strategy for the region, development of regional leadership capacity based on a stewardship model, engagement of new partners (including state and federal) and hundreds of stakeholders, alignment with the TRPA Regional Plan Update, and networking to support key actions such as development of an investment fund for environmental innovation.

EXECUTIVE SUMMARY

THE CYCLE OF LONG TERM DECLINE – OUR FUTURE?

Lake Tahoe is an iconic national treasure. Very few lakes worldwide rival Tahoe's combination of size, depth and spectacular mountain beauty surrounding the watershed. The Lake Tahoe Basin is also an economic region of national and bi-state significance, estimated to produce \$4.7 billion in revenues per year. Long considered a premier destination, Lake Tahoe has suffered both environmental degradation and economic decline.

As a bi-state region, the Tahoe Basin has distinct characteristics related to geography, planning and governance. The Tahoe Basin is comprised of parts of two counties in California, including the only incorporated city in the region (City of South Lake Tahoe), and parts of three counties in Nevada. In an attempt to preserve the heralded natural environment of the Tahoe Basin, the states of California and Nevada formed a regional planning and regulatory organization – the Tahoe Regional Planning Agency (TRPA) – in 1969 amidst significant development pressures following the 1960 Lake Tahoe Olympics held in the region. The Bi-State Compact forming the agency was then ratified by Congress and continues to play a significant role in the regulatory and socioeconomic structure of the area. The federal government also maintains a substantial interest in the Tahoe Basin with the presence of the United States Forest Service, which manages 75 percent of the land as open space and recreational use within the watershed.

While TRPA's role in the Tahoe Basin affects most aspects of the economy, greater macroeconomic forces have taken a toll on the area's economic vitality. The Tahoe Basin's economic decline began long before the current recession. The gaming industry has lost more than 7000 jobs since 1990. Unemployment ranges 13-19 percent in various areas of the Tahoe Basin. Poverty levels have increased dramatically. Along with job loss, second home ownership (49-65 percent) has pushed the cost of housing beyond the reach of most full time residents, resulting in population decline of 15 percent between 2000 and 2008.

The difficulties businesses face in investing in property improvements contributes to increased run-off and deterioration from aging infrastructure and properties, including visual and functional blight. This cycle further erodes the viability of the Tahoe Basin as a world class tourism destination and as a healthy and livable community for residents and families.

A NEW VISION FOR THE BASIN – OUR DESIRED FUTURE

The Lake Tahoe Basin Prosperity Plan (Prosperity Plan) sets forth a new vision for both the economic and environmental health and renewal of the region.

The Lake Tahoe Basin is a world class center of innovation around green tourism, green building and sustainable design, scientific research and applications for environmental resource renewal and management, renewable energies, and health and wellness. "It is the sustainability powerhouse of the nation."

This vision transforms the region to be an environmental innovation center, with sustainable business practices that promote the economic advancement and prosperity of families and communities in concert with enhanced stewardship of the natural environment.

THE POWER OF ECONOMIC CLUSTERS

The way forward requires a new level of collaboration between private and public sector partners and the entire community in a shared agenda for action. The Prosperity Plan is based on three major economic clusters which represent two-thirds of the Basin's economy: Tourism and Visitor Services, Environmental Innovation, and Health and Wellness.

A PLAN FOR ACTION

The Prosperity Plan is a comprehensive action strategy to reposition the Tahoe Basin as an environmentally sustainable destination and test bed for environmental innovation. It is built upon the intellectual talents, commitment, and creativity of Tahoe residents and stewards of the Tahoe Basin, both within and outside of the region. It is a regional innovation strategy built on the foundation of growing and strengthening economic clusters where the region has potential competitive advantage.

To provide an organizational structure to coordinate and support the prosperity initiatives, it is recommended that a **Prosperity Center** (TahoeProsperity.org) be created using a regional stewardship model, which emphasizes networking and collaboration among existing private and public entities throughout the Basin. This model seeks to minimize duplication of efforts but rather will help to coordinate and leverage resources - especially in support of cluster and cross-sector initiatives; fill gaps where they exist; convene and collaborate with partners and stakeholders for shared solutions, especially around the core foundations for regional competitiveness; benchmark and track outcomes, including through the Watershed Sustainability Indicators, reporting back to the community and policymakers; and collaborate with partners on being a unified "voice" for the region's economic future.

Along with this organizational and leadership capacity, it is also necessary to instill greater predictability and consistency in the regional regulatory processes than is administered currently by TRPA and other agencies, in order to achieve the levels of reinvestment and redevelopment necessary to achieve broad prosperity in the Tahoe Basin.

Cluster specific and basin-wide highlights include:

- **Developing a pipeline strategy to support and commercialize alpine climate change and sustainability research, with a technology incubator, innovation investment fund and signature tourism and visitor services facility(ies)** – To build on the valuable existing assets of talent, expertise, facilities and research efforts of the many educational institutions, state and federal agencies, and environmental planning firms working in the Tahoe Basin. These include partners collaborating through the Tahoe Science Consortium: UC Davis Tahoe Environmental Research Center, Desert Research Institute (DRI), University of Nevada, Reno, U.S.G.S., and the U.S. Forest Service Pacific Southwest

Research Station; the campus sustainability initiative of Sierra Nevada College; and the sustainability-related education and training of the area's community colleges and universities. UC Davis and DRI along with others have been chosen by the federal government to co-host the new Southwest Climate Science Center, to understand the affects of climate change on the Southwest region's natural and cultural resources, highlighting the rich knowledge assets of these institutions.

The initiative would further expand efforts to generate Tahoe-based research resources; prototype, fund, and export commercially practical solutions for environmental challenges in the Tahoe Basin and elsewhere; sponsor green entrepreneurship and mentoring programs affiliated with the region's universities and colleges; and provide housing and other resources for researchers and visiting scholars. An innovation investment fund would be developed. It would also provide visitors with hands-on learning experiences about the Tahoe Basin's ecology, awareness of ongoing environmental research, and solutions for sustainable living, in collaboration with the Tourism and Visitor Services cluster.

- **The Tahoe Brand** – To rebrand the region as a green, geotourism, health and wellness visitor destination, providing a unique, authentic Lake Tahoe experience including sports, recreation, culinary, historical, art, cultural experiences, environmental education and volunteer opportunities.
- **Medical Centers of Excellence** – To promote specialties such as orthopedics, sports medicine, fitness training, oncology, and healthy lifestyles; medical tourism framed by the alpine environment, expertise of local medical centers, complementary wellness services, and visitor service assets.
- **Sports Commission** – To attract major sporting events such as the Amgen Bike Tour (scheduled for May 2011 in the Basin), World Cup skiing, philanthropic sporting events and tournaments; to foster Tahoe as a major center for sports and high altitude training venues for athletes; to attract youth and other tournaments and league events; and to capture Tahoe as a center for emerging sports.
- **Environmental Redevelopment** – To achieve sustainable redevelopment of deteriorating properties and infrastructure, thereby improving community livability and promoting green building, resource efficient development, alternative transportation modes, and environmental restoration. Leverage reinvestment through a Basin Infrastructure Bank.
- **Regional broadband strategy** – To facilitate e-Health and telemedicine, e-commerce, improved visitor experiences, efficient government services, telecommuting, emergency services and other needs for a “Connected Tahoe Basin.”
- **Basin-Wide Housing Affordability, Education and Workforce, Transportation and Infrastructure Strategies** – To support the vitality of the clusters and promote community livability, sustainability, and equitable access to opportunities.

There have been several key accomplishments to date through the development of the Prosperity Plan:

- Creation of first Basin-wide regional economic strategy, based on key economic clusters, through a bottom up process involving hundreds of community leaders, businesses, academia, institutions, and residents, and committed to sustainability and regional success.
- Engagement of new institutional partners, who are providing expertise, capacity, fiscal and other resources to advance the Basin's economy, with expanded access to opportunity and improved environmental outcomes.
- An economic forum with state and federal partners who expressed a commitment to partner with Basin stakeholders to make the Prosperity Plan a reality.
- Increased networking and collaboration throughout the Basin across clusters and organizations which has accelerated ongoing activities, provided impetus for emerging initiatives, and increased information sharing and resource leveraging; as an example, the possibility of an innovation investment fund is moving forward.
- Development of leadership capacity on the part of the Lake Tahoe Basin Prosperity Plan Steering Committee, in a stewardship model serving on behalf of the region.
- A new course offering through UNR's extended studies program on Sustainability Management and Environmental Entrepreneurship for Fall 2011, for working professionals in the private, public and non-profit sectors as well as credit for currently enrolled students.
- Increased public awareness about the long-term economic, social, and environmental conditions affecting the future prosperity and quality of life for the Basin.
- Coordination with the Douglas County Economic Vitality Plan.
- Alignment with the Tahoe Regional Planning Agency (TRPA) Regional Plan Update.
- Preparation of a Lake Tahoe Basin profile for the *2010 California Regional Progress Report*, the state's sustainability indicators report prepared for the California Strategic Growth Council and Caltrans.

I. LAKE TAHOE BASIN PROSPERITY PLAN – INTRODUCTION

BACKGROUND

The Lake Tahoe Basin Prosperity Plan (Prosperity Plan) is an unprecedented regional collaboration effort to develop a Basin-wide economic prosperity strategy, which did not exist. Per the requirements of the project’s federally funded scope of work, the region includes all the lands that shed water into the Lake Tahoe Basin in California and Nevada plus the area downstream along the Truckee River including Squaw Valley and Alpine Meadows (see Appendix A, Methodology for description.) The purpose of the project was to develop an action plan for a more resilient economy that enhances environmental quality and ensures an improved standard of living for all residents. The Prosperity Plan provides the framework for a competitive regional strategy that recognizes local differences; leverages the distinct attributes of all communities throughout the Tahoe Basin; enables local governments, institutions, and businesses to work as partners in revitalizing the Basin economy; and provides the opportunity to collaborate with diverse partners in the broader regional economies of California and Nevada.

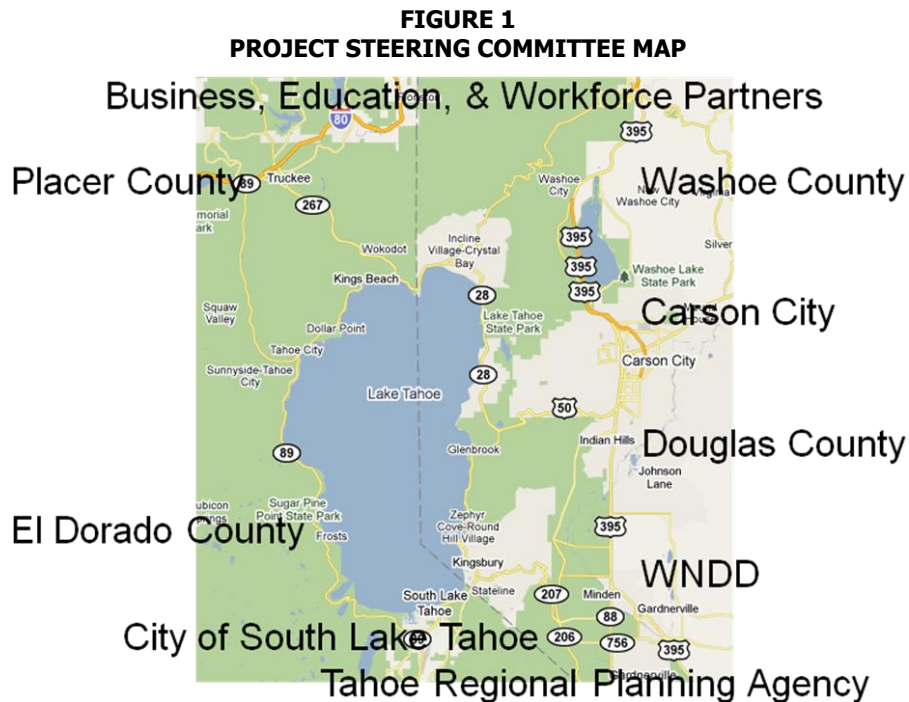
The Prosperity Plan was developed because in spite of the unparalleled asset of Lake Tahoe and the surrounding mountains and watersheds, the region’s economy is threatened by environmental challenges and economic restructuring at the global, national, and state levels. Economic and community distress indicators are high and have been on a persistent and long-term downward trend, even before the Recession. The fragmentation of the Tahoe Basin across six jurisdictions in two states created an additional challenge to developing a cohesive regional economic strategy.

In 2007 the Lake Tahoe South Shore Chamber of Commerce and the North Lake Tahoe Chamber of Commerce joined together to enlist Tahoe Basin partners in addressing these conditions. Through their leadership, the Western Nevada Development District (WNDD) was awarded a grant from the U.S. Department of Commerce Economic Development Administration (EDA), with matching funds provided by all six of the Tahoe Basin’s local governments. It is a significant achievement to secure funding for a bi-state regional economic strategy.

The project’s Steering Committee includes representatives of the following jurisdictions and organizations who provided an investment of funds or in-kind services (see Figure1). The Committee has modeled the process of collaboration as additional partners joined the Committee over the course of developing the strategy:

- Carson City, Nevada
- City of South Lake Tahoe, California
- Douglas County, Nevada
- El Dorado County, California
- Lake Tahoe Community College
- Lake Tahoe School (first year)
- TahoeChamber.org

- North Lake Tahoe Chamber of Commerce
- North Lake Tahoe Resort Association
- Parasol Tahoe Community Foundation
- Placer County, California
- Sierra Nevada College
- South Tahoe High School
- Tahoe Regional Planning Agency
- Washoe County, Nevada
- Western Nevada Development District



Source: ADE, Inc.

PROSPERITY PLAN CLUSTER FOCUS

The Prosperity Plan is a cluster-based strategy focused on innovation, entrepreneurship and sustainability. Economic clusters are the foundation for economic competitiveness within a region and in the state, national and global economy. They are geographic concentrations of firms that share common markets, buyers, suppliers and specialized talent. They include firms that create wealth by exporting their products or services or import wealth by drawing customers to the region, as well as firms that supply goods and services to these exporters and importers. The role of the public sector is to support the growth and success of the clusters through investments in education, workforce skills, research and technology, infrastructure and a fair and efficient regulatory process.

Regional cluster-based strategies have been shown to result in the improved economic performance of businesses, improved job quality, and improved regional economic vitality. Many regions

including Sacramento and Reno/Carson Valley have adopted this approach and many federal and state agencies, including EDA, SBA, the U.S. Department of Labor, the California Labor and Workforce Development Agency, and the Nevada Commission on Economic Development have invested in cluster-based strategies because of their success and effectiveness. As such, cluster-based strategies call for governance and organizational approaches that are collaborative, agile, and driven by private and public sector champions, but that provide sufficient structure and capacity to support cluster initiatives and complementary strategies. A recommended approach will be discussed under governance options in the Action Plan.

PROSPERITY PLAN DEVELOPMENT PROCESS

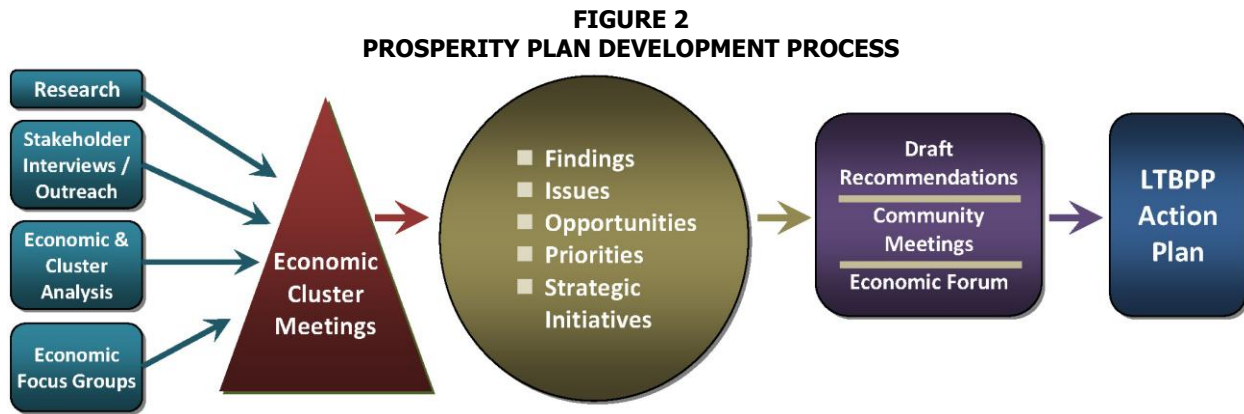
The Prosperity Plan has been developed through an extensive process of research, community and business meetings, cluster working groups, and general consultation with a wide variety of partners, stakeholders and resource providers (see Figure 2). The project began in January 2010 with an environmental scan of existing research and data and stakeholder interviews, and a preliminary economic assessment of potential business clusters in the Basin conducted by Applied Development Economics (ADE) and the Center for Economic Development (CED), CSU Chico. More than sixty formal interviews were conducted as well as numerous informational sessions for research and informal discussions throughout the course of the project. (See Appendices A and B for data analysis methodology and stakeholder and resource interviews and Appendix D for the bibliography and reference resources.) This initial information was presented at two economic focus groups in March, one at South Shore, and one at North Shore.

Based on the input from the economic focus groups and the Steering Committee, ADE convened three priority economic clusters: Tourism and Visitor Services, Environmental Innovation, and Health and Wellness, for a series of seven meetings in April, May and June. The cluster groups included business, organizational, and local, state and federal level participant; they produced draft action plans, including a set of strategic initiatives with priority actions addressing key issues and opportunities for each cluster.

The draft action plans were presented at community meetings at both the South Shore and the North Shore on July 15. The Steering Committee also hosted an Economic Forum on August 16th that included a panel of Federal, State and local officials, to present the preliminary concepts for the Prosperity Plan, and two meetings with resource partners in June and September. (See Appendix C for a list of cluster and community meeting participants.) More than 500 people total participated in these meetings and forums. Many people participated in more than one meeting. As the project proceeded, a cluster-focused master contact list was developed and information was broadly distributed. The Prosperity Plan received widespread media attention which also generated many inquiries and requests from community members to participate in the process, and provided feedback.

Steering Committee members and project consultants presented an overview of the project at several venues, including the Sierra Green Building Association (SiGBA conference), the North Tahoe Regional Advisory Council, and the Lake Tahoe Environmental Summit, the first time the event included an economic perspective. These events generated valuable additional input and

guidance. The Prosperity Plan will be presented to TRPA Governing Board in early 2011 to inform their members as they work toward the Regional Plan Update.



Source: ADE, Inc.

REPORT SECTIONS

The following sections of the report describe in detail the Vision for revitalizing the Tahoe Basin economy as a center of sustainability, environmental innovation, livability and equitable opportunity; key findings from the project process; potential outcomes for benchmarking and measuring progress; the implementation strategy including a strategic framework and recommendations for governance and cluster action plans; and project resources.

- Vision for the Tahoe Basin Economy
- Environmental Scan
- Economic Clusters
- Lake Tahoe Basin Prosperity Plan Implementation Strategy
- Cluster Initiatives
- Appendices

II. LAKE TAHOE BASIN VISION

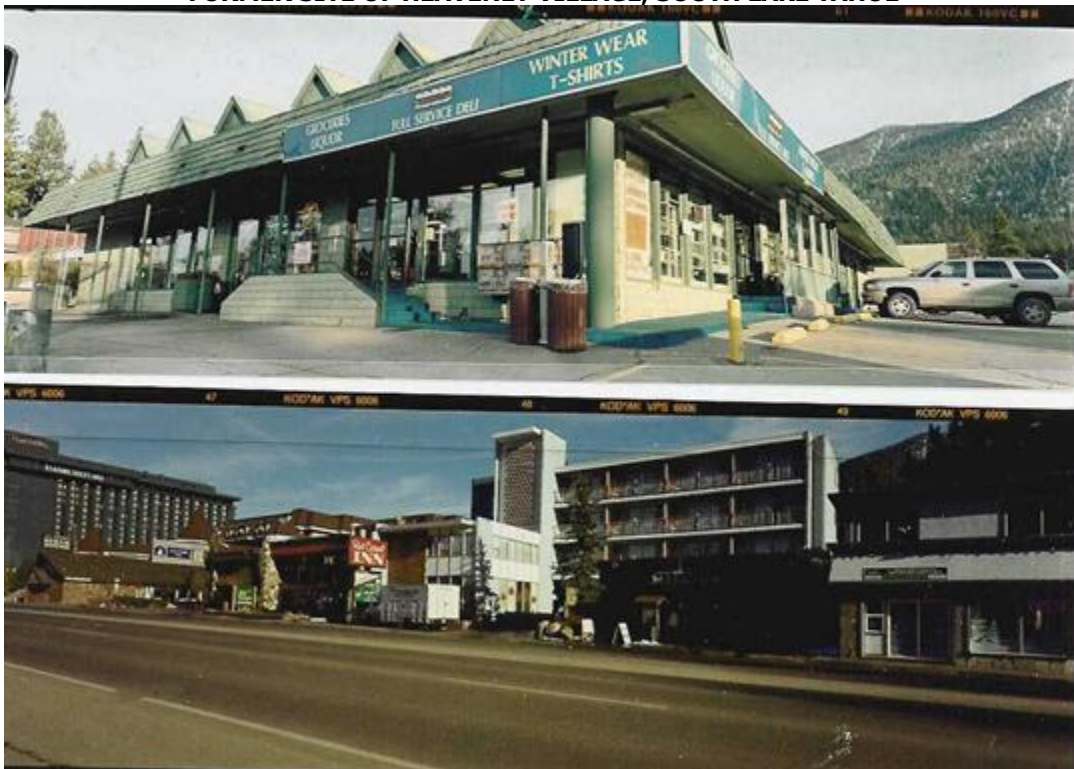
The Lake Tahoe Basin Prosperity Plan (Prosperity Plan) sets forth a new vision for both the economic and environmental health and renewal of the region.

The Lake Tahoe Basin is a world class center of innovation around green tourism, green building and sustainable design, scientific research and applications for environmental resource renewal and management, renewable energies, and health and wellness. "It is the sustainability powerhouse of the nation."

This vision transforms the region into an environmental innovation center, with sustainable business practices that promote the economic advancement (prosperity) of families and communities in concert with enhanced stewardship of the natural environment.

The Tahoe basin has already seen examples where careful redevelopment can greatly improve the physical environment as well as the visitor experience and livability for residents, as shown in the before and after photos from both South and North shore as follows.

FORMER SITE OF HEAVENLY VILLAGE, SOUTH LAKE TAHOE



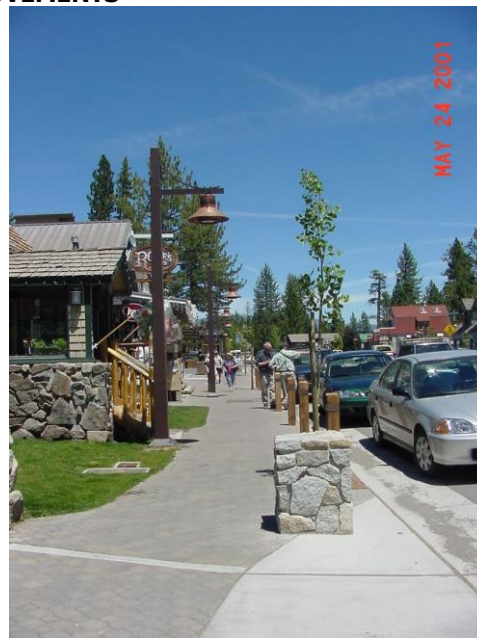
CURRENT HEAVENLY VILLAGE DEVELOPMENT



TAHOE CITY BEFORE IMPROVEMENTS



TAHOE CITY AFTER IMPROVEMENTS



Source: Photo courtesy of Corey Rich Photography

NORTH LAKE TAHOE – AFTER IMPROVEMENTS



What is needed to implement this vision is investment, collaboration, leadership and communication. The Prosperity Plan outlines an approach to environmental and economic advancement that features these elements.

- **Invest in the Fundamentals:** Environmentally sustainable infrastructure and facilities, diverse and accessible educational resources, and equitable economic opportunities.
- **Invest in the Cluster Initiatives:** Using the “ground up” cluster process, both private and public sector resources can be better focused on issues that directly affect economic prosperity.
- **Collaborate:** Economic clusters help to facilitate partnerships between businesses, government, educational institutions, resources and other community organizations. It is important to have all these players at the table in order to achieve real progress.
- **Leadership:** The success of the Prosperity Plan rests on the leadership of the many champions and resource partners required to implement investment initiatives, and on the

“steward” leaders who act on behalf of the shared long-term wellbeing of the region – a “commitment to place.”

- **Be a Voice for the Region:** The Tahoe Basin is governed by a multitude of jurisdictions, but it must send a unified message to regional, state and federal agencies that expresses its common interests and a common purpose.

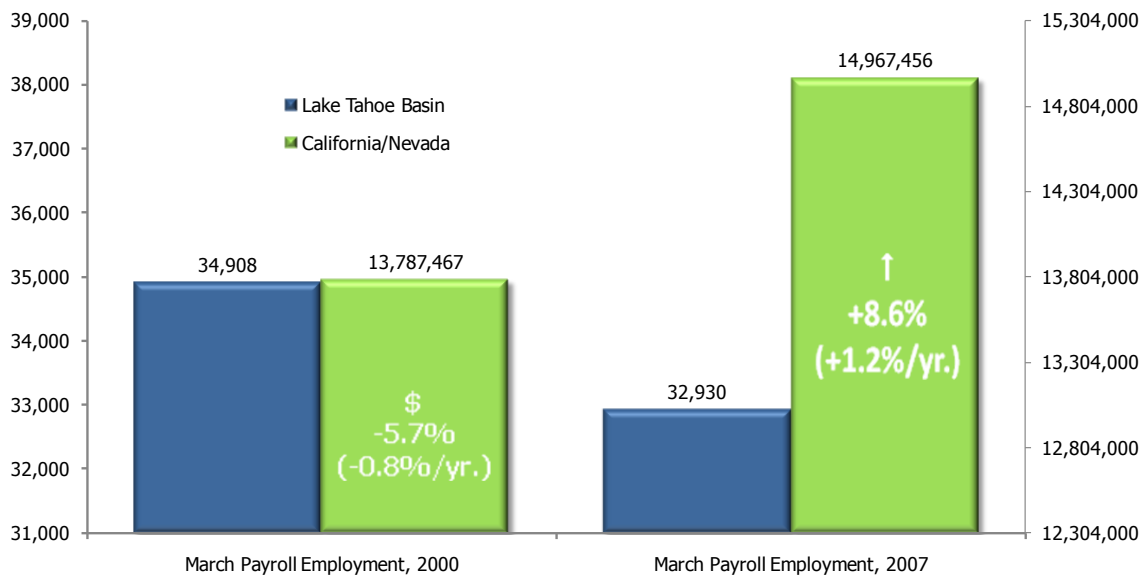
III. ENVIRONMENTAL SCAN

This chapter summarizes economic and social trends that affect the prosperity of the Lake Tahoe Basin.¹ The economic cluster analysis covers the period 2000-2007, the period for which the most recent payroll growth data is available for zip code level required for sub-county level analysis. This data does not include self-employment. Other indicators reflect more recent time points. Detailed information on the economic data analysis methodology is included in Appendix A.

PAYROLL JOB GROWTH AND BUSINESS LEAKAGE

The period from 2000-2007 brought substantial economic growth to California and Nevada, but the opposite was true in the Lake Tahoe Basin. One indicator of economic distress in the Basin is the fact that total employment declined during the 2000-2007 period, while employment in the state of California and Nevada grew during the same period (see Figure 3). The Basin lost 2,000 jobs (-5.7 percent) while the two states added 1.2 million jobs (+8.6 percent).

FIGURE 3
LAKE TAHOE BASIN PROSPERITY PLAN ECONOMIC CLUSTERS PAYROLL JOB GROWTH
COMPARED TO CALIFORNIA AND NEVADA, 2000-2007

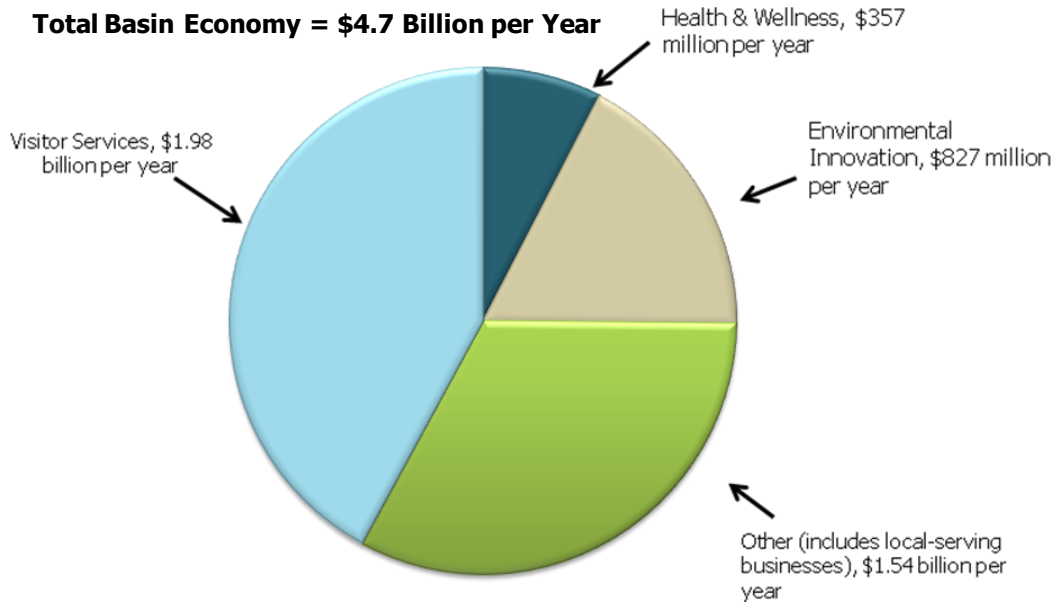


Source: CED, based on U. S. Dept. of Commerce, Bureau of the Census, Zip Code Business Patterns

Two-thirds of the Lake Tahoe Basin economy is driven by three economic clusters: Tourism and Visitor Services, Environmental Innovation and Health and Wellness (see Figure 4).

¹ The term “Environmental Scan” refers to the baseline economic conditions relevant to economic cluster development. The Lake Tahoe Watershed Sustainability Project has developed additional indicators that include physical environmental conditions such as lake water clarity.

**FIGURE 4
ECONOMIC CLUSTERS**

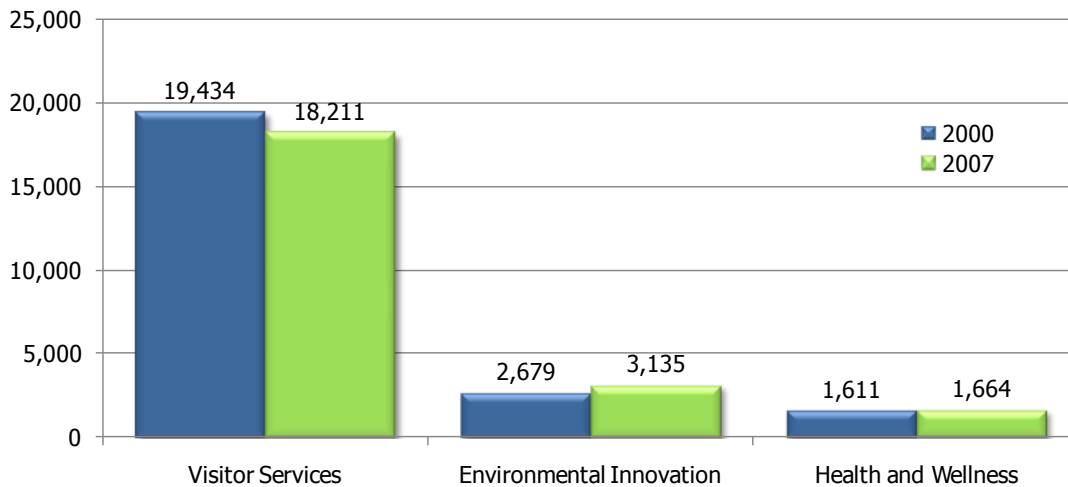


Source: CED, based on IMPLAN Input-Output model analysis.

The economic analysis of the clusters has been conducted for the period 2000 to 2007, which illustrates economic patterns and performance at two similar points in the business cycle. In this way, we are measuring the real growth of the economy and not the cyclical changes that have occurred, including from the recent deep recession. Of course, it will be important to continue the process of analysis by updating the most recently available data, to document the overall impact of the recession, see what patterns are emerging during the recovery, and discern how the structure of the economy may be transforming.

Tourism and Visitor Services declined slightly overall during this period, largely due to large declines in gaming employment and some entertainment sectors, counterbalanced by growth in other hospitality and recreation businesses. Environmental Innovation increased employment, while Health and Wellness was stagnant, largely due to declining population levels in the Basin (see Figure 5). Job growth or loss may be understated as the jobs reflect payroll or employee jobs and not self-employment. Certain subsectors of the clusters may have substantial numbers of self-employed.

FIGURE 5
LAKE TAHOE BASIN PROSPERITY PLAN ECONOMIC CLUSTERS PAYROLL JOB GROWTH, 2000-2007



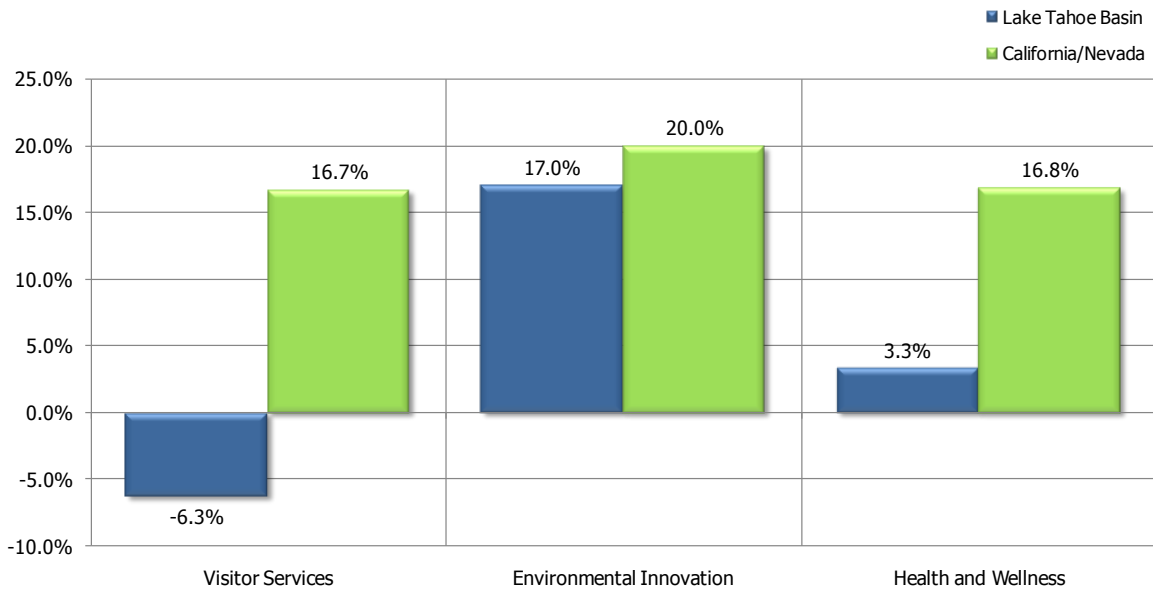
Source: CED, U.S. Department of Commerce, U.S. Census, Zip Code Business Patterns

Looking at the individual clusters in the Basin compared to the same clusters in California and Nevada, none of them matched statewide performance. As noted in a previous slide, the Tourism and Visitor Services cluster in the Basin is heavily affected by losses in the gaming industry, which are not matched in California due to growth in Indian gaming. However, aside from these losses, the growth that the Basin experienced in hospitality and recreation is well below the state averages.

The discrepancy in between local and statewide growth in Health and Wellness is particularly striking and is a strong indication of the effect of declining population levels in the Basin. This is a troubling trend since this cluster usually grows in other regions, even during economic downturns.

While still somewhat below the state averages, the performance of the environmental innovation cluster in the Basin is an indication that this is a sound emerging growth sector in the current economy (see Figure 6).

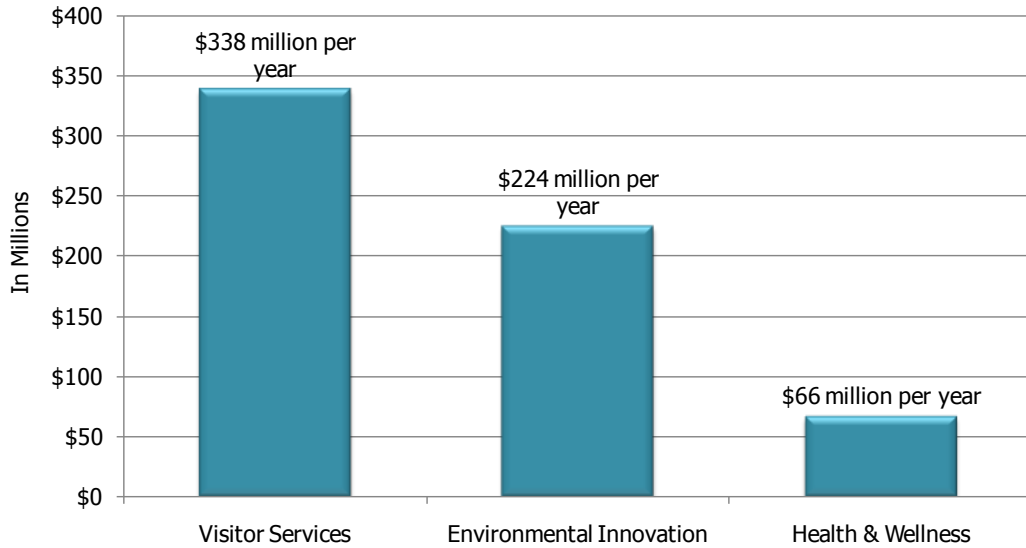
**FIGURE 6
LAKE TAHOE BASIN PROSPERITY PLAN ECONOMIC CLUSTERS PAYROLL JOB GROWTH, 2000-2007, COMPARED WITH CA/NV**



Source: CED, U.S. Department of Commerce, U.S. Census Bureau, Zip Code Business Patterns

Although the three clusters represent two-third of the Basin economy, there is substantial “leakage” of business-to-business transactions due to the lack of suitable supplier businesses for many goods and services. The chart below represents potential transactions that are currently leaving the Tahoe Basin, some of which could be recaptured through targeted business attraction and represent opportunities to support the development of new and expansion of existing businesses (see Figure 7). (See Appendix A for more information on the leakage analysis).

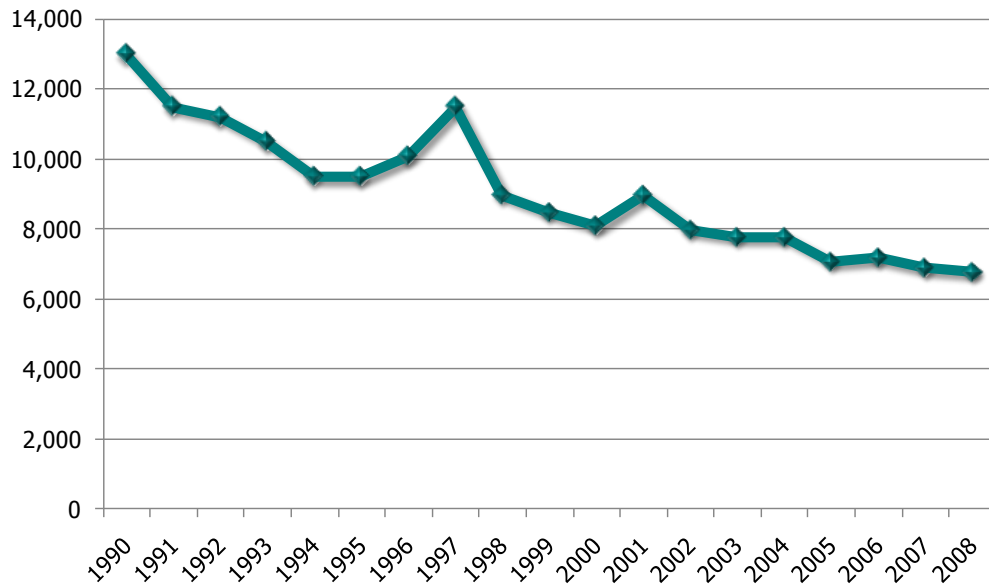
**FIGURE 7
POTENTIAL BUSINESS TRANSACTIONS CURRENTLY LEAVING THE TAHOE BASIN
(LEAKAGE)**



Source: CED, based on IMPLAN Input-Output model analysis.

As shown in the chart below (Figure 8) by Dr. Bill Eadington at UNR, employment in South Lake Tahoe casinos has been declining for a long time. This chart shows a total loss, just in South Lake Tahoe Casinos, of 7,000 jobs since 1990.

**FIGURE 8
EMPLOYMENT, SOUTH LAKE TAHOE CASINOS, 1990-2008**



Source: Dr. Bill Eadington, UNR.

VISITOR AND REVENUES TRENDS

Visitor levels are down significantly this year over last due to the recession, which is exacerbating a longer term trend manifested throughout this entire decade. The following are some economic indicators reflecting patterns in the cluster:

- Transient Occupancy Tax (TOT) for City of South Lake Tahoe is down 9 percent this fiscal year compared to last fiscal year, and 63 percent comparing April 2010 to April 2009.
- The number of hotel room nights rented in the City of SLT is down 51 percent from 1999-2000 to 2008-09; the number of rooms occupied at the Stateline casinos is the lowest since 1994.
- North Shore sales tax revenues are virtually identical in 2008 to what they were in 2000, having declined in both 2007 and 2008 (note: not all of the North Tahoe area resorts are included in the data for consistency with other economic indicators).
- TOT revenues on the North Shore also declined in 2007 and 2008, but then increased slightly for the 2009-10 fiscal year due to strong snow falls during the winter season.

UNEMPLOYMENT RATES

Related to long-term trends and the current recession, the economic situation in the Tahoe Basin has deteriorated further (see Table 1).

- Unemployment was estimated at 17.2 percent in City of South Lake Tahoe in June 2010, with a 15 percent average on the North Shore, ranging from 12.9 percent in Kings Beach to 18.8 percent in Tahoe Vista. Rates were above comparable county rates in Placer and El Dorado counties.
- Approximately 50 percent of South Lake Tahoe residents meet low and moderate income standards.

The City of South Lake Tahoe is not the only area in the Tahoe Basin exhibiting very high unemployment rates. Nevada counties rates are higher than the rates in the California counties. Overall, the levels shown throughout the region are comparable to areas of the San Joaquin Valley, one of the poorest regions in the country - a region that is dependent on agriculture and is suffering economic impacts of the drought and the housing meltdown, including some of the highest foreclosure rates in the nation. Unemployment rates are higher than in the Inland Empire and comparable to distressed rural counties like Colusa, Glenn and Yuba Counties.

**TABLE 1
UNEMPLOYMENT RATE, CALIFORNIA AND NEVADA**

As of June 2010 (not seasonally adjusted), California, and May 2010, Nevada	
Area	Unemployment Rate
El Dorado County:	(12.6%)
City of South Lake Tahoe	17.2%
Placer County:	(11.6%)
Dollar Point CDP*	15.4%
Kings Beach	12.9%
Sunnyside Tahoe City CDP	15.0%
Tahoe Vista CDP	18.8%
Estimated North Shore/CA.	15.0%
Carson City County	(13.2%)
Douglas County	(15.0%)
Washoe County	(13.3%)
*CDP = Census Designated Place Source: CA. Employment Development Dept., Labor Market Information Division; NV. Dept. of Employment, Training and Rehabilitation	

Source: ADE, Inc.

POPULATION LOSS AND POVERTY (SUBSIDIZED SCHOOL LUNCHES)

Due to the loss of approximately 2000 jobs from 2000 through 2007 (-6 percent), further job loss in 2008 and 2009, and changes in the housing and finance markets, more than 9,500 residents – fifteen percent of the population - left the Tahoe Basin between 2000 and 2008 (more than 1,200 residents per year). Almost 2,800 primary school students (and future workforce) left with their families. This represents a decline of 22 percent between 2000 and 2008, a loss which has continued over the past two years. Along with this decline, two elementary schools and one middle school in South Shore have closed.

Since the 2005-2006 school year, the Tahoe Basin school districts have lost more than 1,000 students, yet the number of children receiving subsidized lunches has increased by 175. Overall, the percentage of students receiving subsidized lunches increased from 38 percent to 44 percent of total students. While the volume of change is highest for the Tahoe Truckee Joint Unified School District, the highest percentage change is at Incline Village. This indicator is a proxy for family poverty levels (see Table 2).

**TABLE 2
SUBSIDIZED SCHOOL LUNCHES**

Change from 2005-2006 school year to 2009-2010 school year			
School District	Total Additional Students Leaving	# of Free or Sub. School Lunches	Increase in % of Sub. Lunches as Proportion of Total Students
Lake Tahoe Unified	-554	-15	51% to 57%
Tahoe Truckee Joint Unified	-353	105	32% to 38%
Subtotal CA.	-907	90	42% to 48%
Zephyr Cove, Douglas Cty.	-13	24	17% to 22%
Incline Village, Washoe Cty.	-129	61	19% to 28%
Subtotal NV.	-142	85	19% to 26%
Total	-1,049	175	38% to 44%

Source: Ca. Dept. of Education, School Fiscal Services as of April 1, 2010, Free/Reduced Meals Data Program and Calworks data file. Nevada Dept. of Education, Child Nutrition and Health, 2010

Source: ADE, Inc.

SECOND HOME OWNERSHIP AND HOUSING AFFORDABILITY

The dramatic kind of population loss described above leads to a greatly diminished sense of community, and revenues to support vital community services and quality of life. In addition to job losses and economic trends described above, another factor contributing to population changes is related to housing market conditions. As a result of the accelerated housing values in the earlier part of the decade, many long time residents sold to second home owners and other investors. Between 49 and 65 percent of homes are owned by second home owners or others (depending on the county):²

- Placer County – 65 percent
- Washoe County – 55 percent
- El Dorado County – 55 percent
- Douglas County – 49 percent

Indications are that many of these sellers moved to neighboring areas, especially Reno and the Carson Valley, and commute back into the Tahoe Basin, elevating levels of air pollution at certain areas.

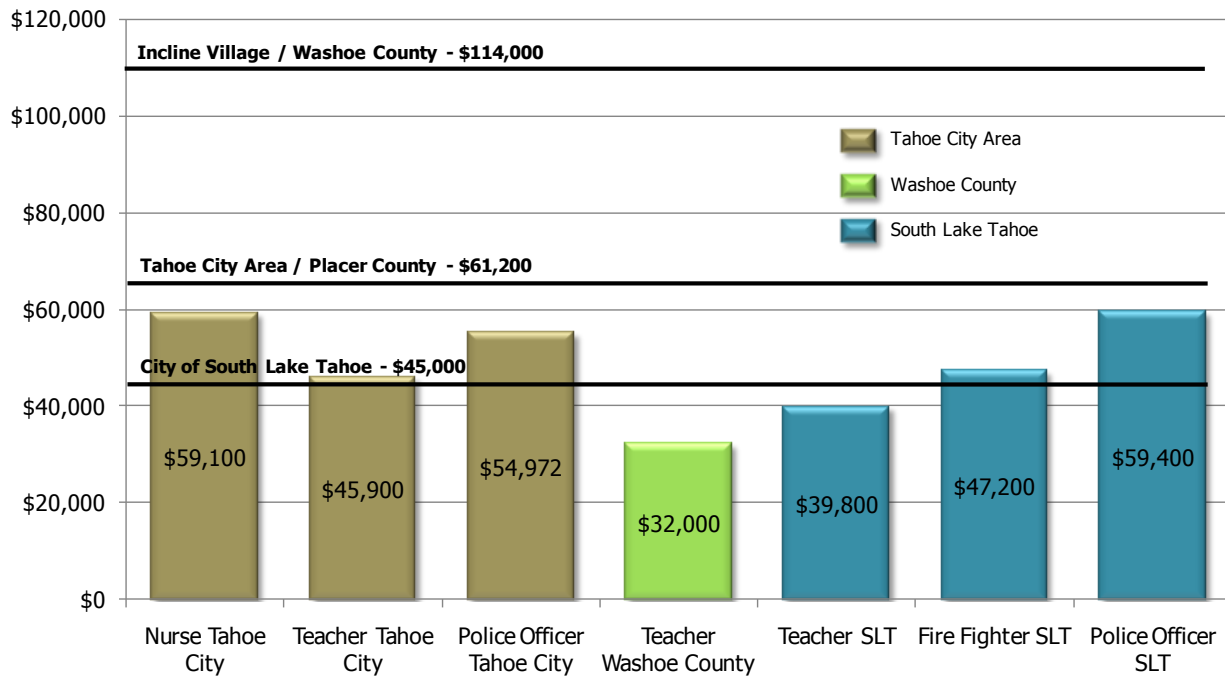
The housing “bubble” in the earlier part of the decade increased the cost of housing beyond the levels that many workers in the Tahoe Basin could afford. While the recent market downturn has helped to reduce the costs of housing in some areas, the large levels of job loss and other economic distress indicators create ongoing challenges of affordability.

In 2010 most teachers, nurses, firefighters, and police officers lacked the purchasing power to qualify for home ownership in the Tahoe Basin. Entry level workers were “locked out” of the

² Source: TRPA, 2003 data

market and even experienced workers could not purchase housing in certain communities around the lake especially the Incline Village area. As shown in Figure 9, for most teachers, firefighters and police officers, purchasing a house in the Tahoe Basin requires a substantial down payment. Entry level workers are priced out of the market and even experienced workers cannot purchase housing in certain communities around the lake.

FIGURE 9
INCOME NEEDED TO AFFORD MEDIAN-PRICED HOME COMPARED TO ENTRY-LEVEL SALARIES 2010



Source: ADE, Inc., based on the following sources: Salaries: City of South Lake Tahoe Salaries By Bargaining Unit, April 2010; South Lake Tahoe Unified School District, Certificated Salary Schedule, Education Center, 2007-2008; Placer County Personnel Dept. Employment Opportunities, July 2010; Tahoe Truckee Unified School District, 2008-2009 Teachers Salary Schedule; Washoe County School District Salary Schedule and Human Resources Dept., Lake Tahoe School; Median Housing Prices: RGJ.com, "Real Estate: Early 2010 Sales at Lake Tahoe beefed up by lackluster 2009," July 18 2010, with data from Chase International. Qualifying Income Calculation: Deb Howard, Deb Howard & Co. Realtors, Norm Hansen, RPM Mortgage Co.

MONITORING INDICATORS OF FUTURE SUCCESS

It will be important to measure progress in the implementation of the Prosperity Plan. Many economic cluster projects benchmark on a regular basis, usually annually, for both specific performance of the "clusters of opportunity" and for longer-term directional progress in broader quality of life and sustainability indicators.

Benchmarking and tracking progress over time provides several benefits: it provides community leaders and clusters participants with information on how well the clusters are doing, where mid-course corrections need to be made, and what is succeeding so that progress can be replicated or accelerated. It informs decision-making about strategic planning priorities and investments, and to see how cluster initiatives may be helping to move the region in the right direction. It provides a

systemic mechanism for education and information sharing about cluster initiatives, community dialogue, and engagement of new cluster partners and participants. Finally, it is an opportunity for to celebrate the successes of the cluster strategy and to foster commitment to the principles of regional collaboration and stewardship.

Rural regions and sub-county areas are challenged with data availability in selecting a consistent group of indicators to monitor on a regular basis. Data may be available for some indicators but require significant resources to gather and analyze. The Prosperity Plan should identify a manageable set of core indicators to begin the process of tracking progress toward improvement in the Three E's of sustainability – economic prosperity, environmental quality, and access to opportunity and resources (social equity). This report provides a baseline of indicators in the following areas, related to both cluster-specific performance and more general indicators, which could be updated annually:

- Payroll job growth in the three economic clusters/performance benchmarked to California and Nevada economies
- Business to business leakages
- Transient Occupancy Tax (TOT) revenues, sales tax revenues, and hotel occupancy rates
- Unemployment rates
- Subsidized School Lunches (poverty measure)
- Overall population growth/decline
- Housing affordability
- Second home ownership (needs to be updated)

This process should be coordinated with the Lake Tahoe Watershed Sustainability Measures Project. The project published its report in February, 2010, outlining 14 indicators to be tracked on an annual basis to measure progress toward integrating a healthy environment, economy and community in the Lake Tahoe Basin. A number of these measures are the same or similar to the data presented above in the Prosperity Plan environmental scan, and taken as a whole constitute a means of assessing future short and long term success of the Prosperity Plan as well as other regional planning efforts. Some of these measures have severe data limitations and will not be able to be collected on an annual or even every five year basis without conducting additional in-depth research. The 14 measures include the following:

- Population totals by age
- Population totals by race and Hispanic origin
- Voter participation
- Number of K-12 students
- High school graduation rates
- High school drop out rates
- Transit ridership
- Number of payers for hospital services
- Visitor room nights and TOT revenues
- Retail sales tax
- Median house prices
- Per capita household income
- Civilian labor force age 16+

- Employed and unemployed workers
- Tahoe deep water clarity

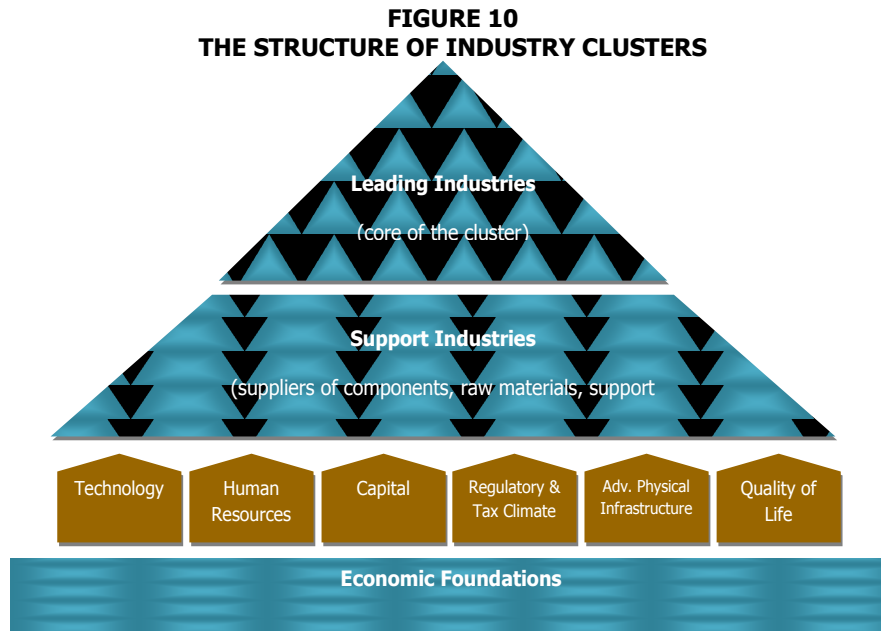
TRPA also collects data on a regular basis that would be valuable for sustainability indicators. Most recently, TRPA collaborated with the California Strategic Growth Council to identify a set of indicators for the Tahoe Basin as part of a statewide effort to measure regional progress toward sustainability – the 2010 California Regional Progress Report. The indicators to be used include Vehicle Miles Traveled (VMT); air quality – ozone and Particulate Matter; modes of travel; population trends; economic cluster and gaming employment trends; housing affordability; and lake clarity. (An important contributor to greenhouse gas emissions, VMT is correlated with economic factors as reflected in visitor travel trends, and is also affected by population decline and commuting into the Basin from neighboring areas. Measures such as VMT and air quality can be positively affected by increased alternate modes of transportation, more compact land use, building energy retrofits and other green building techniques, and alternative vehicles such as electric cars.)

These projects together provide the opportunity to develop a concise, reliable set of quality of life indicators for the Prosperity Plan. It will be important for the community to factor in the variables that affect the indicator outcomes, such as the economic downturn in the case of job growth or VMT, or a fire in the case of air quality, to name a few examples.

IV. ECONOMIC CLUSTER OVERVIEW AND ANALYSES

This project is unique in that it is focused on the geography of the Lake Tahoe Basin itself, as defined by the watershed and including the area downstream along the Truckee River including Squaw Valley and Alpine Meadows, even though the Basin is part of five counties in both California and Nevada. At the same time, the Prosperity Plan recognizes the important economic linkages to the surrounding regions. In particular, the areas north of the watershed boundary, including Northstar and Truckee, have extremely strong economic connections to the North Lake Tahoe economy. Other important regional linkages include Reno, the Carson Valley, and the West Slope of the Sierra, extending to the overall Sacramento region.

The Prosperity Plan is based largely on the organization and enhancement of economic clusters in the Tahoe Basin. See Figure 10 for an illustration of the structure of industry clusters. Clusters are vertically integrated groups of businesses that include core businesses such as Tourism and Visitor Services, environmental technology and consulting firms and medical services, as well as supplier industries to these clusters. In addition, the concept of a cluster includes a number of “economic foundations” necessary for economic prosperity, such as workforce training programs, capital resources, infrastructure and public services, an efficient regulatory environment and above all a desirable quality of life, including a healthy environment.

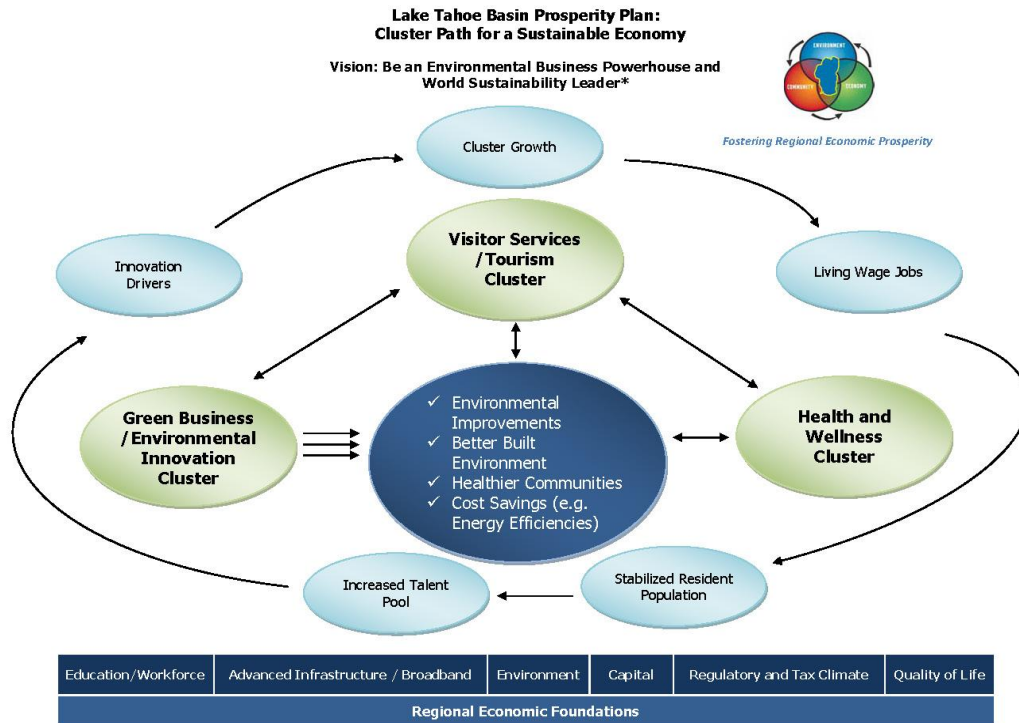


Source: ADE, Inc.

The power of economic clusters is their ability to stimulate innovation, creating new products and services that not only serve the local population but also broader markets outside the region. As shown below, the cluster development process creates a “virtuous cycle” that leads to both environmental enhancement and economic stability. The cluster growth process is shown in the

outer circle, beginning with Innovation Drivers. Innovation drives cluster growth by increasing demand for local products and services. The cluster growth leads to increases in the number and quality of living wage jobs, which support families and help to stabilize the resident population in the Basin. This increases the talent pool in the Basin and lead to further innovations. The cluster development process is supported by the economic foundations, as indicated in both the pyramid above, Figure 10, and the graphic below, Figure 11.

**FIGURE 11
CLUSTER PATH FOR A SUSTAINABLE ECONOMY**



Source: ADE, Inc.

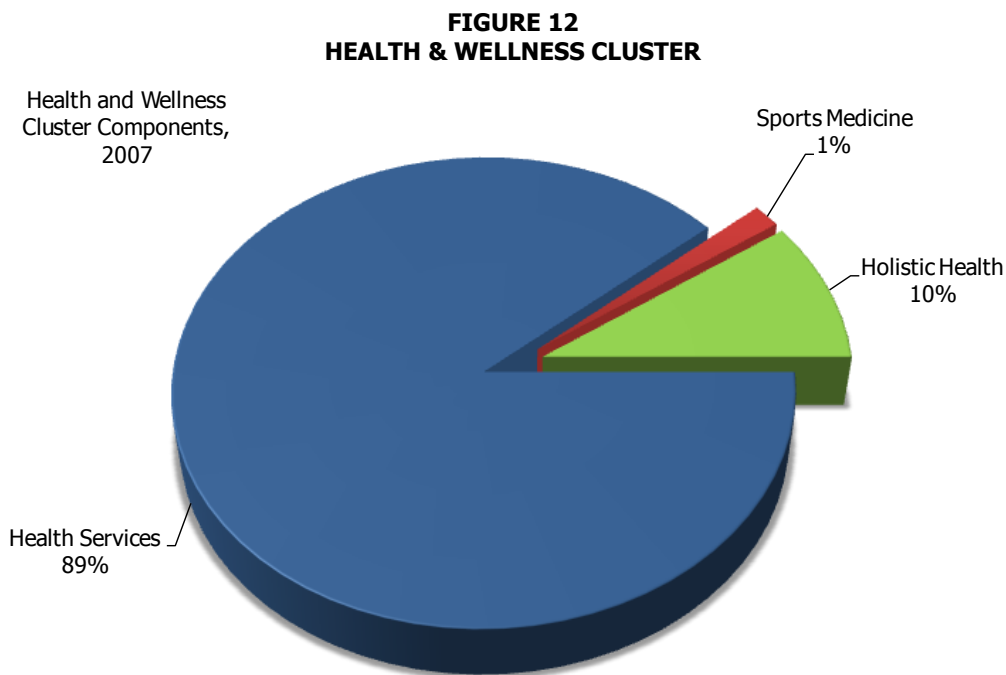
The Prosperity Plan is grounded in existing local economic strengths, including tourism, recreation, environmental research and resource management, and health and wellness services. The Environmental Innovation cluster will drive much of the progress toward sustainability, but there are significant synergies among all three clusters. The design techniques and materials developed in the Environmental cluster will help to implement environmental redevelopment of aging building and infrastructure which also are needed to improve environmental conditions. This in turn will support the Tourism and Visitor Services cluster in offering a better experience to visitors. Improved environmental conditions also support the Health and Wellness Cluster in terms of making healthier and more livable communities for both visitors and residents, and promoting the region as a premier wellness and healthy lifestyles destination. The Tourism and Visitor Services and Health and Wellness clusters will collaborate to create a nurturing experience for visitors, grounded

in the natural and cultural wonders of the Tahoe Basin, and the physical realities will align with the Vision to be a world class center of innovation and sustainability.

This chapter defines each of the clusters and provides an initial analysis of recent trends and issues that will need to be addressed to help grow the clusters, as defined through the economic research, stakeholder interviews, economic focus groups and cluster meetings.

HEALTH AND WELLNESS CLUSTER

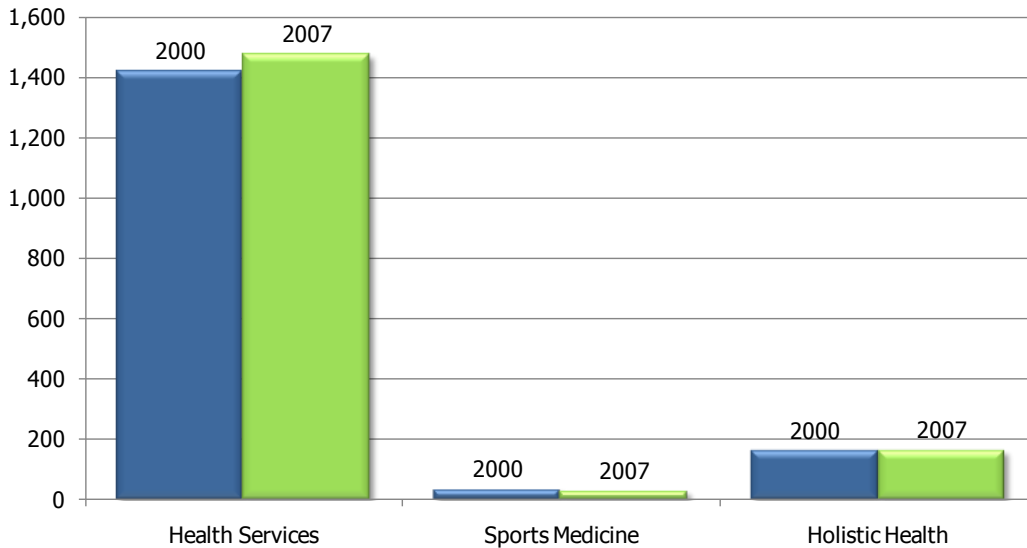
The Health and Wellness cluster is composed of three main components: health services which includes telemedicine, and sports medicine and holistic health (see Figure 12). There is a high concentration of employment in health services compared to the other clusters, but this may be partly due to the categorization process. For example, the hospital systems have many employees working in sports medicine, including orthopedic surgery and recovery, and physical therapy, but they will be classified as in health services rather than in sports medicine. As cluster implementation proceeds, the analysis can be further refined. Sports medicine and holistic health may also be underrepresented because they may have significant levels of self-employment which are not reflected in the payroll jobs data.



Source: ADE, Inc.

Growth in this cluster was minimal in real terms and actually negative in relation to similar industries statewide in California and Nevada, as indicated in previous charts (see Figure 13).

**FIGURE 13
LAKE TAHOE BASIN PROSPERITY PLAN HEALTH & WELLNESS CLUSTER, PAYROLL JOB
GROWTH 2000-2007**



Source: CED , U.S. Department of Commerce, U.S. Census Bureau, Zip Code Business Patterns

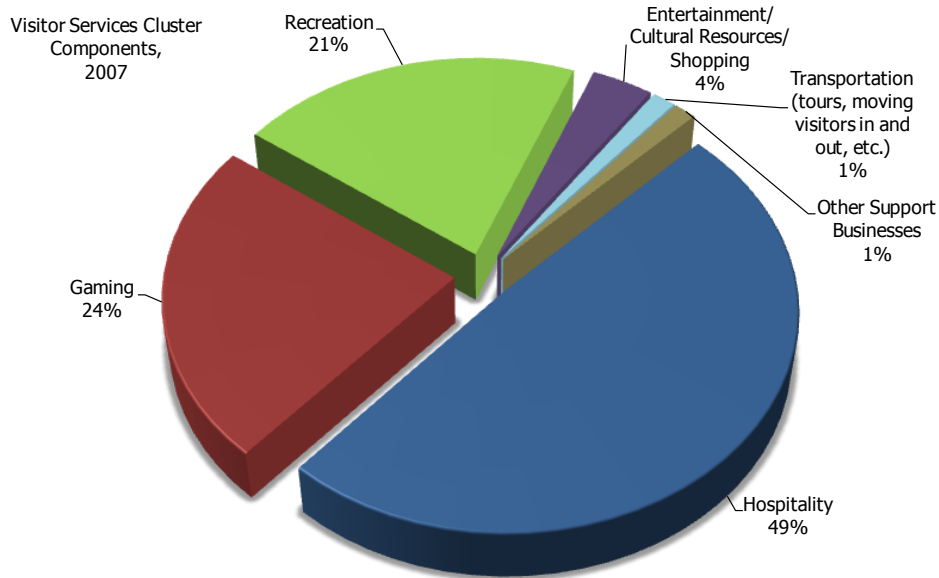
Issues facing this cluster include the following:

- Population loss affects service levels
- Blight and deteriorated infrastructure conflicts with message of health and wellbeing, as well as reducing community quality
- Coordinated marketing is needed to promote healthy lifestyle, medical specialties and other opportunities, especially with the Tourism and Visitor Services Cluster
- Broadband gaps limit e-Health and telemedicine (and other) opportunities
- Gaps exist in specialized suppliers
- Gaps in workforce skills, exacerbated by population loss

TOURISM AND VISITOR SERVICES CLUSTER

Tourism and Visitor Services is by far the largest cluster. Hospitality, including lodging and food service, accounts for half of this cluster. Gaming includes both casino hotels and other gaming establishments. Ski resorts and other summer recreation enterprises are categorized as recreation (see Figure 14). While the remaining components are small in size, they are very important to the overall vitality of the cluster.

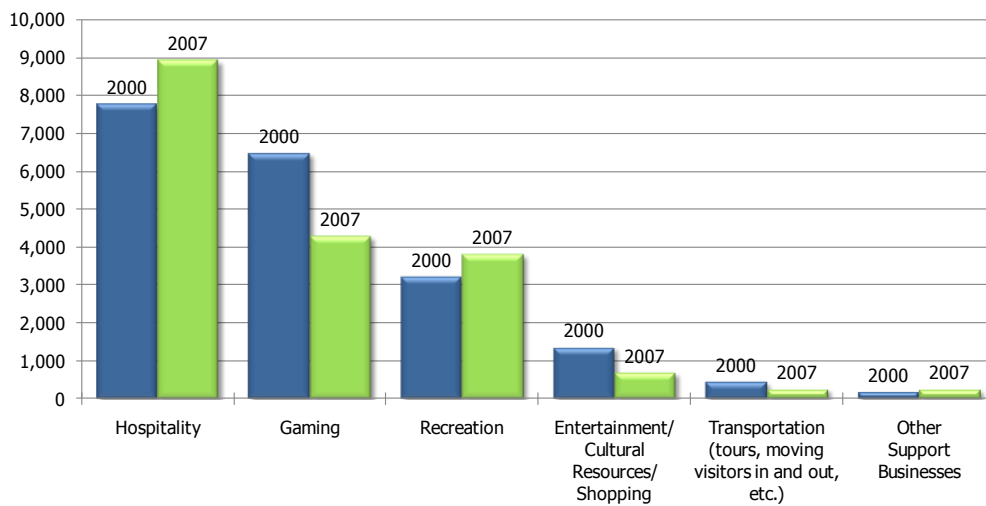
**FIGURE 14
TOURISM AND VISITOR SERVICES CLUSTER EMPLOYMENT DISTRIBUTION**



Source: CED

During the study period, non-gaming hospitality and recreation increased employment, although still not as fast as the tourism industry in the two states. As documented in other figures, gaming and related entertainment has declined since at least 1990, well beyond the period analyzed for the Prosperity Plan (see Figure 15) and indicative of a structural long-term trend.

**FIGURE 15
LAKE TAHOE BASIN PROSPERITY PLAN TOURISM AND VISITOR SERVICES CLUSTER,
PAYROLL JOB GROWTH 2000-2007**



Source: CED, U. S. Department of Commerce, U.S. Census Bureau. Zip Code Business Patterns

Issues affecting the vitality of the Tourism and Visitor Services cluster include the following

- Gaming no longer a key driver – needs to reinvent itself
- While certain venues provide an excellent experience in the region, the visitor experience needs to be consistent in living up to marketing throughout the Tahoe Basin, and be more competitive with world class destinations in terms of quality and authenticity
- Blight, lodging infrastructure deterioration, traffic congestion and lack of mobility options impair visitor experience
- The regulatory environment hinders redevelopment
- Broadband service is inconsistent and does not meet customer expectations
- Visitor information sources and services are fragmented

ENVIRONMENTAL INNOVATION CLUSTER

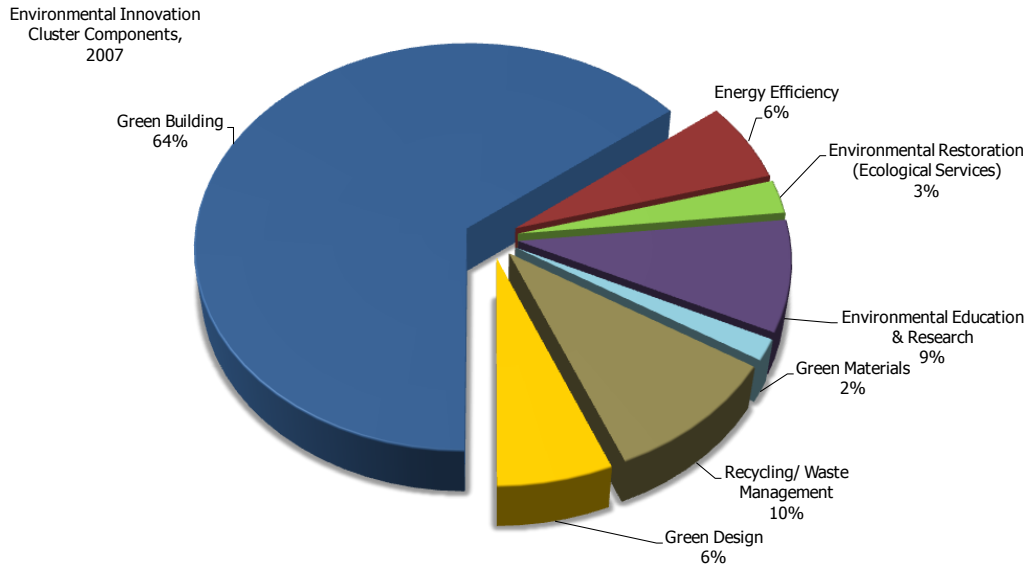
This cluster is diverse in that it includes a spectrum of enterprises ranging from green building contractors to environmental research institutions and activities operated by major universities such as UC Davis, the Desert Research Institute, and the University of Nevada, Reno (UNR).

Green building is composed mainly of construction trades and makes up the majority of this cluster. A number of other cluster components are related but distinct business activities, such as energy efficiency, green materials distribution, and green design, which include architectural and engineering services. At this stage, the figures in the graphs include all businesses in these industries, whether or not they are specifically involved in green building. However, given the current and projected state of regulation both locally and regionally, all businesses in these sectors will need to work in this field in order to thrive. This includes a new California law, the California Green Building Standards Code (CALGreen, Title 24 Part 11) which sets new requirements for residential and non-residential buildings to reduce construction waste, increase building energy efficiency, and reduce indoor water use, taking effect in January 2011.

Environmental restoration includes environmental consultants, many of whom are engaged in projects related to new building development/redevelopment as well as more general habitat restoration. These firms possess specialized expertise and talent. One such firm in Tahoe City is an Inc. 500 fast-growing firm, which demonstrates the potential for this cluster. Environmental research and education mainly includes the higher education institutions in the Basin. It does not include the researchers based outside of the Tahoe Basin who conduct work in the Basin.

Recycling and waste management includes all employment in solid waste collection in the Tahoe Basin. As noted with the green building sub-component, there is little room in the industry now for non-sustainable solid waste disposal (see Figure 16). However, there is potential in emerging activities related to composting to support local food systems.

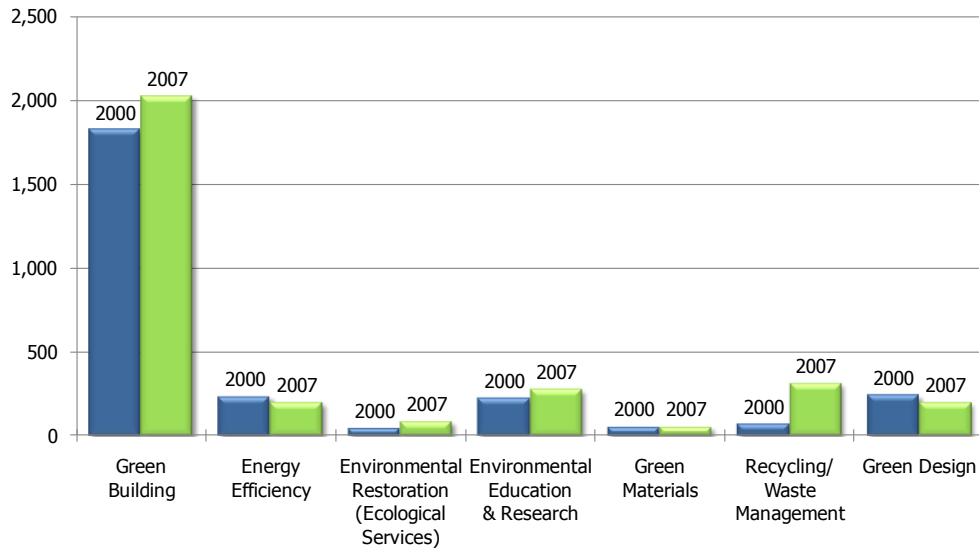
FIGURE 16
ENVIRONMENTAL INNOVATION CLUSTER EMPLOYMENT DISTRIBUTION



Source: CED

Most components of this cluster grew between 2000 and 2007, although energy efficiency and green design declined slightly (see Figure 17).

FIGURE 17
LAKE TAHOE BASIN PROSPERITY PLAN GREEN BUSINESS / ENVIRONMENTAL INNOVATION CLUSTER, PAYROLL JOB GROWTH 2000-2007



Source: CED , U.S. Department of Commerce, U.S. Census, Zip Code Business Patterns

Key issue areas identified by the Environmental Innovation Cluster include the following:

- Broadband Gaps
- Brain Drain/limited job opportunities to keep young workers
- Need for a Business Incubator
- Fragmentation of utilities with regard to renewable energy incentives and deployment due to different providers in two states
- Sustainability/planning practices are not cutting edge
- Aging built environment and blight
- Federal agencies are siloed
- Best Management Practices (BMPs) are expensive
- Better linkage is needed between science and commercial applications
- Funding needed for scientific monitoring, data management and reporting and not just problem identification
- Funding goes to public agencies rather than businesses
- High investment criteria for private funds limit access to capital

V. LAKE TAHOE BASIN PROSPERITY PLAN – IMPLEMENTATION STRATEGY

OVERVIEW

The Prosperity Plan has been developed through a “ground up” process of convening economic cluster work groups to identify issues and develop focused action plans to address opportunities and constraints to business expansion within each cluster. The primary emphasis in the action plans, therefore, is on issues and activities that the businesses and their institutional partners in the clusters can affect directly within the framework of an overarching regional strategy.

Through this process, it is apparent that certain issues transcend the purview of the individual clusters and must be addressed at a regional level. These regional issues include:

- New development standards to implement the environmental redevelopment concepts in the Tahoe Regional Planning Agency (TRPA) Regional Plan Update
- Locally available sources of capital for business start ups and expansion
- Sources of capital for infrastructure development/redevelopment
- An environmentally sustainable transportation system throughout the Basin
- Workforce housing to accommodate workers and families living in the Basin
- Targeted education, skills training and career pathways to match business’ labor requirements
- Expanded broadband infrastructure (wireline and wireless)
- Other infrastructure, including upgraded water and wastewater systems

The cluster meetings identified a number of linkages between these regional issues and the specific action steps envisioned for each cluster. It is proposed that implementation of the Prosperity Plan include a Phase 2 step that will engage the economic cluster work groups with regional partners to collaborate on developing comprehensive approaches to these issues, including through designated work groups focused on these specific issues.

Cluster initiatives require a governance approach that provides leadership and capacity to guide implementation of the “whole,” supports and creates synergy among the cluster initiatives, and engages private and public sector champions and partners in collaborative implementation. The recommended governance structure for the implementation of the Prosperity Plan is a regional collaboration model, proposed to be situated in a new Prosperity Center. Depending on the level of resources available, this center may begin as a virtual networking website and evolve into a coordinating center to assist existing organizations and agencies, as well as the cluster work groups, in implementation of initiatives and generation of resources. The Steering Committee will continue to provide continuity and leadership. The recommended governance structure is discussed below.

The discussion of the Cluster Path for a Sustainable Economy in the previous chapter (Figure 11) indicated the high level of synergy among the clusters. A number of the cluster initiatives involve overlap in actions steps identified by each cluster. In order to create a logical sequence of actions

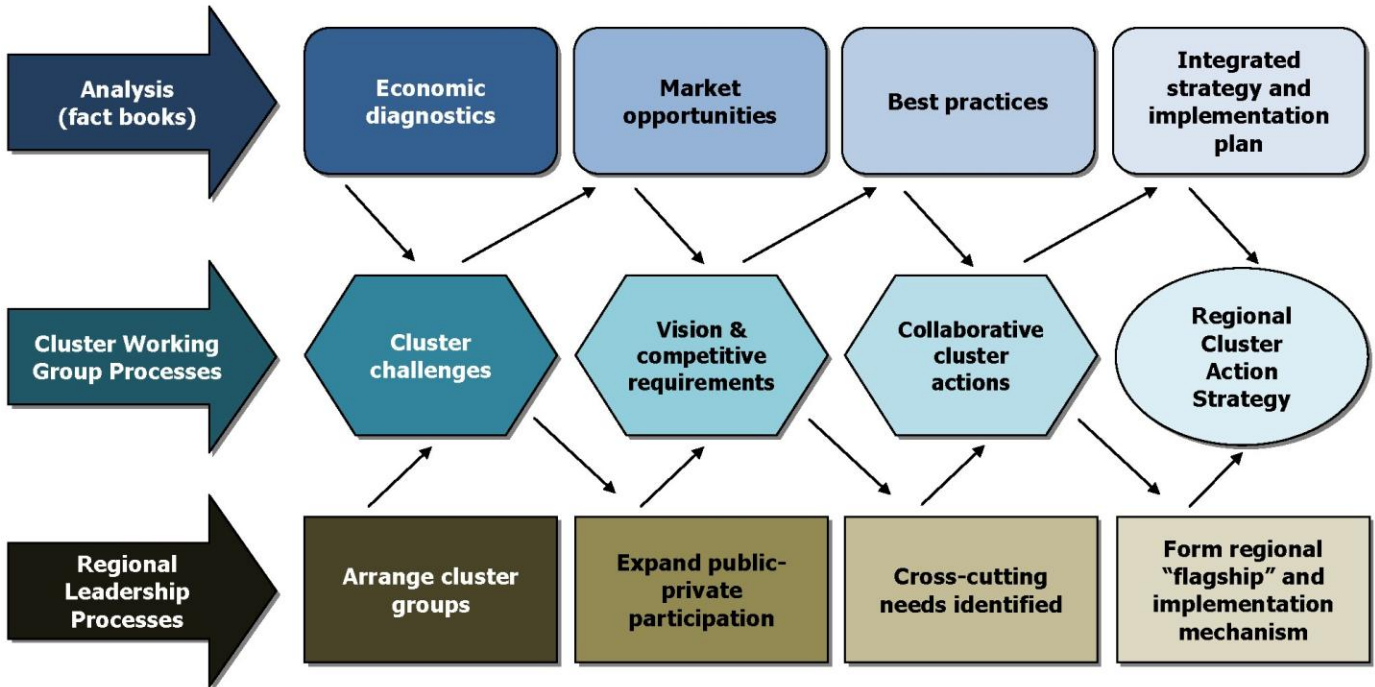
and initiatives, we have consolidated common steps into separate issue categories that can be addressed by cross-cluster work groups and other partners. These initiatives include:

- Expansion of Tahoe-based alpine climate change and sustainability research and applications, with a strategy for creating a pipeline for commercialization, possibly through a technology business incubator; development of an investment fund; accommodations for researchers; green entrepreneurship mentoring programs for students; and nature-based visitor and local attractions;
- Design and implementation of a rebranding program for the Basin as a center of innovation and a sustainable tourism destination;
- Development of a regional sports commission or efforts to attract and coordinate activities for events like the World Cup, Amgen (which has been committed for May 2011), youth and masters tournaments and other activities in the region, including possibly Olympic events. Both Sacramento and Nevada have successful models and the Reno Tahoe Winter Games Coalition is playing a regional role; and,
- Development of visitor assets such as environmentally sustainable resort spas, health and wellness destinations and cultural facilities.

The foundation of the Implementation Strategy is a group of initiatives and activities that would be addressed by work groups within each cluster. Examples include enhancement of the green building industry within the Basin through training, certification and a comprehensive green business program (Environmental Innovation cluster); development of health and wellness specialties such as orthopedics, oncology, sports medicine and fitness training (Health and Wellness cluster); and creation of “Tahoe Authentic” travel itineraries with culinary, historic, natural components (Tourism and Visitor Services cluster). These detailed initiatives are outlined in the final section of this chapter.

As noted earlier, economic cluster processes have a coherence and structure that will help achieve success. The following figure illustrates the continuum of the process for developing and implementing a regional prosperity strategy, at three levels: analysis, cluster work group process, and regional leadership processes. Most of the analysis has been completed for this phase of the project; cluster work groups have identified initial action strategies which must be further prioritized and organized as the foundation of the implementation strategy; and the regional leadership process illustrates the role and required actions of the governance structure. Following the figure is a discussion of the Prosperity Plan Implementation Strategy, for launching the next stage of the Prosperity Plan governance process and cluster-specific initiatives.

THE CLUSTER WORKING GROUP PROCESS



Source: Economic Competitiveness Group, Inc.

PROSPERITY PLAN IMPLEMENTATION STRATEGY

The action steps needed to implement the Prosperity Plan require both short-term and longer-term decisions and activities. The situation currently is dynamic, in that the process of creating the Prosperity Plan over the past ten months has fostered a number of activities that align with and are helping to advance efforts that are already underway in the Basin. These include:

- A heightened level of coordination among local government jurisdictions and with business groups;
- Convening of a work group to identify capital resources for economic development in the Basin;
- Efforts to create a business incubator and an innovation investment fund;
- Collaboration among North and South Shore green business cooperatives;
- Discussions among Health entities and Tourism and Visitor Services businesses about joint project and marketing efforts; and
- Discussions among educational and research entities in the Basin about increased outreach and coordination with the business community.

While these efforts are beneficial and indicate the strong consensus among participants that immediate and strategic action is needed, there is also a need to stabilize the organizational structure for moving the plan forward. The following table outlines actions that should be taken over the next six months, under the purview of the Prosperity Plan Steering Committee, to establish a structure and a set of resources to help facilitate the work of the economic cluster work groups and other regional partners. These steps should occur in parallel with the specific action plans for the clusters outlined later in this chapter. The Steering Committee has started the process of identifying cluster work group leads.

FUNCTION	ACTION ITEMS	PLANNED OUTCOMES
Steering Committee	<p>Short-Term/Ongoing:</p> <ul style="list-style-type: none"> ▪ Prepare and convene monthly with agenda, action items, reporting ▪ Facilitate stakeholder relations ▪ Recruit cluster champions and participants and launch cluster work groups ▪ Convene workforce/education partners to solidify the “human capital” aspects of the Prosperity Plan ▪ Convene Resource Partners for targeted support ▪ Event Planning, coordination, logistics <p>Longer-Term:</p> <ul style="list-style-type: none"> ▪ Link and leverage affordable housing, broadband infrastructure, infrastructure, transportation/mobility, foundation initiatives 	<ul style="list-style-type: none"> ▪ Launch of the Prosperity Implementation Plan ▪ Creation of Cluster Work Groups and identification of leads and participants and launch ▪ Prosperity Center and Implementation Strategy operates as a “regional” strategy
Prosperity Center	<ul style="list-style-type: none"> ▪ Establish Fiscal Agent ▪ Determine governance model including physical, operating, funding and communications structures ▪ Determine revenue strategy(s) ▪ Establish budget ▪ Establish metrics and reporting systems ▪ Establish Linkages & Alignment with Regional Initiatives (see above) 	<ul style="list-style-type: none"> ▪ Fiscal Agent in place ▪ Governance model in place ▪ “Bridge Funding” secured ▪ Sustainable revenue strategy completed with operating budget ▪ Regional linkages clarified and developed
Communications	<ul style="list-style-type: none"> ▪ Upgrade web site and media portals ▪ Develop and conduct communications “road show” ▪ Conduct outreach for stakeholder/community/regional levels ▪ Produce required documents and resource materials ▪ Maintain contact data base 	<ul style="list-style-type: none"> ▪ Web site fully operational with contact data base ▪ Communications support all required outreach, messaging, and development

FUNCTION	ACTION ITEMS	PLANNED OUTCOMES
<p>Cluster Work Groups</p>	<ul style="list-style-type: none"> ▪ Schedule work groups ▪ Select co-chairs (champions) and recruit participants ▪ Provide convening/intermediary support functions ▪ Build upon Prosperity Plan cluster initiative recommendations to create action plans with priorities, next steps, timeline, resources, participants, etc. ▪ Coordinate specific initiatives <ul style="list-style-type: none"> - Alpine research/sustainability commercialization, investment fund - Sports Commission - Health & Wellness Centers of Excellence initiatives - Branding 	<ul style="list-style-type: none"> ▪ 3 cluster workgroups launched ▪ Action plans developed ▪ Cluster workgroup needs identified for support from the Prosperity Center, Infrastructure Bank, others
<p>Bridge Funding</p>	<p>Secure short term funding and in-kind support to launch and transition the Plan from EDA funding to fully operational from the following partners:</p> <ul style="list-style-type: none"> ▪ Government: 5 counties, 1 city, TRPA ▪ Education: LTCC, UNR, DRI, WNC, Sierra Nevada College, UC Davis, CSU Chico ▪ Community Foundations: <ul style="list-style-type: none"> - Parasol Tahoe - El Dorado Community Foundation - Community Foundation of Western Nevada ▪ Private Foundations: Harrah’s Foundation, Morgan Family Foundation ▪ Tahoe Fund ▪ Ca. and Nevada WIB Funding <p>Mid-Term: Infrastructure Bank</p> <ul style="list-style-type: none"> ▪ Position this project for next phase EDA funding ▪ Private Equity ▪ Philanthropy ▪ Foundation grants ▪ Government grants ▪ Government and Institutional Partnerships <p>Longer term:</p> <ul style="list-style-type: none"> ▪ Service Revenues ▪ Private Equity ▪ Philanthropy ▪ Foundation Grants ▪ Government grants ▪ Government and Institutional Partners ▪ Transfer of Wealth (TOW) Opportunities 	<ul style="list-style-type: none"> ▪ Funding in place for 6 months ▪ Funding strategy developed and implemented for sustainable operations

GOVERNANCE STRUCTURE OPTIONS

“Regional Stewards are leaders who are committed to the long-term well-being of places...Regional stewardship is about residents, businesses, government, educational institutions, and community organizations acting as a “network of responsibility.” The basic values underlying regional stewardship are evident: We want to create broad prosperity; a healthy, attractive environment; and inclusive communities for ourselves and the next generation. The essence of regional stewardship is taking responsibility to ensure we pass on a better place to our children.”

Regional Stewardship: A Commitment to Place, the Alliance for Regional Stewardship, October, 2000, pp. 3 and 4.

According to the Council on Competitiveness, in a new report commissioned by EDA, effective leadership is the cornerstone of regional economic growth, job creation and shared prosperity (“Collaborate: Leading Regional Innovation Clusters”). The Prosperity Plan process has been guided to date by the Prosperity Plan Steering Committee, a leadership collaboration of the Basin’s six jurisdictions, the Chambers of Commerce, TRPA, the K-12 and higher education systems, and Western Nevada Development District. As the project has advanced, additional partners have joined the Steering Committee planning process, including representatives of the philanthropic community and other leadership organizations in the Tahoe Basin.

As the Prosperity Plan moves to the next stage, it is necessary to articulate the governance process and structure for the implementation of the Plan. This will include decision-making and guidance related to the overarching Plan, cluster initiatives and region-wide initiatives; leadership and partnership engagement; funding; interface with local, regional, state and federal agencies and partners, including the education community; and accountability to the community and the funders for outcomes. In some cases the governance of the Prosperity Plan will be involved in developing and/or managing initiatives, and in other cases, with supporting existing partners and organizations in their efforts. Developing a governance structure will also contribute to the long-term development of regional capacity for sustainable economic development for the Basin.

There are several potential models for governance of regional and multi-jurisdictional economic development initiatives. They include: economic development corporations, business councils, economic development districts, city and county-led economic development offices, and regional collaboratives. Another model, the California Partnership for the San Joaquin Valley – a regional-state partnership model – is also described. Based on the attributes which appear to be the most appropriate match for the Tahoe Basin, ADE recommends the model of a regional collaborative, with elements of the California Partnership for the San Joaquin Valley for state-regional partnerships and organizational structure related to implementation of initiatives. These are both models of regional stewardship. The model for the Lake Tahoe Basin Prosperity Plan should include all the jurisdictions of the Basin as that has been very effective for leadership and inclusion.

Key aspects of the regional models are described below starting with the regional collaborative:

Regional Collaboratives. “Regional Collaboratives” are non-profit organizations that are private-public sector partnerships focused on the three E’s of sustainable regional economies – economic prosperity, environmental quality and social equity. They are a stewardship model. Regional

Collaboratives were sponsored by the Sustainable Communities Program of the James Irvine Foundation starting in 1997. The first regional collaborative in California was Joint Venture: Silicon Valley Network. In 2000, the Foundation funded the California Center for Regional Leadership (CCRL) to nurture the development of Collaboratives throughout the State, to promote an understanding of the nature of regional economies, and to connect the State and the regions in collaborative partnerships. CCRL's work focused on economic vitality, workforce development, smart growth, infrastructure, budget reform, and quality of life indicators with diverse partners at the local, regional, state and federal levels.

Today, the Regional Collaboratives are comprised of selected regional economic organizations such as economic development corporations (EDCs) and business councils that have evolved from traditional economic development roles into regional stewardship and collaboration models. Examples include the San Diego Regional EDC, the Orange County Business Council, the Fresno Business Council, and the Los Angeles EDC. There are also new approaches such as exemplified by Sacramento region's Valley Vision. While CCRL is currently not operational, the Morgan Family Foundation is working with the Regional Collaborative Network through the California Stewardship Project. Other Regional Collaboratives include the Sierra Business Council which covers the widest geographic region in the State, and the Redwood Coast Rural Action, a partnership of the Humboldt Area Foundation, Humboldt State University, and local economic development organizations.

Valley Vision is a non-profit 501 (c)(3) serving the six county Sacramento region including El Dorado and Placer counties. It serves as an objective, nonpartisan "action tank" committed to regional problem solving as well as providing impartial research for sound decision-making. In this role, Valley Vision supports partner organizations in regional approaches and manages projects directly if there is a gap in sponsorship. Over time, this approach has taken root in the Sacramento region to great benefit. The Valley Vision stewardship model would be an appropriate approach for the Tahoe Basin to consider for adaptation.

Valley Vision is a Prosperity Plan resource partner, with several initiatives that offer opportunity for the Tahoe Basin's prosperity strategy, including in the areas of green business development, renewable energy, regional food systems, and broadband infrastructure and deployment. Vision CEO and Managing Partner Bill Mueller briefed the Steering Committee on the Valley Vision model and the opportunities for cross-regional collaboration. He also participated in some of the Prosperity Plan's cluster-related activities. In his briefing he described some of the methods and capabilities of Valley Vision for regional problem-solving:

- Identifies critical issues and opportunities to influence and shape regional solutions in a positive way;
- Serves as a catalyst for first-start activities that require collaborative, boundary-crossing approaches, nurturing some of them to become sustainable spin-off projects;
- Helps people and groups create their own proactive, breakthrough solutions to issues;
- Is a neutral convenor and connector, setting the table for regional problem solving and collaboration;
- Is inclusive, involving a diversity of groups and individuals;

- Is a source of independent and impartial research and information on regional issues and best practices; and,
- Measures progress using objective data and indicators.

One of Valley Vision’s key projects is the Partnership for Prosperity, a collaborative of thirty-four leadership organizations that Valley Vision manages on behalf of the region’s economic strategy. Partners include the Sacramento Region Chamber of Commerce which works on business retention and outreach and public policy issues, the Sacramento Trade and Commerce Organization which works on business marketing and attraction, the Sacramento Area Regional Technology Alliance which works on emerging industries, Workforce Investment Boards and educational institutions on education and workforce development, the Sacramento Area Council of Governments (SACOG) which leads the Regional Blueprint for growth planning and infrastructure investment, utilities, and others.

In addition to the Partnership for Prosperity, Valley Vision manages the Green Capital Alliance, the region’s cluster strategy for clean tech and clean energy, the Regional Broadband Initiative, the Regional Health IT Initiative, the Cleaner Air Partnership, and the Regional Food System Collaborative. It is the civic engagement and outreach partner for SACOG. Valley Vision’s current funding of \$1.1 million is derived 82 percent from grants and project fee-for-service, and 18 percent from annual event proceeds, board member contributions, and investments from business, government and individuals. There are approximately 26 public and private sector board members (www.valleyvision.org).

Other regional economic development models are described below:

Economic Development Corporations or Authorities (EDCs/EDAs). An EDC is typically a 501(c)(3) non-profit that is a public-private partnership model. Funders include city and county jurisdictions and private sector members, usually through levels of sponsorships rather than membership fees. Boards of directors vary in size and include the above funders and members as well as partner organizations such as colleges and workforce development representatives. Some EDCs generate additional revenue from grants (government and philanthropic), fees for services including administration of revolving loan funds, conferences, publications and other activities. There are several EDCs in California. EDAWN and Northern Nevada Development Authority (NNDA) are Authorities with cluster initiatives serving the regional economies surrounding the Tahoe Basin.

Traditionally, EDCs have focused on business marketing and attraction activities but today, as the economy has evolved, many EDCs focus more specifically on existing businesses through business retention, expansion and entrepreneurship activities – the “home-grown economy” – including through economic cluster initiatives which build off existing comparative advantage. Their initiatives also focus on region-wide partnership initiatives to address the cluster “foundations for competitiveness” – such as education, workforce training and skills development, workforce housing, infrastructure, and tax and regulatory issues.

This model has been challenged by the dependence on the public sector for funding support, especially in rural areas, given their difficult budget situations. Some of the urban EDCs such as the Los Angeles Economic Development Corporation and the San Diego Regional EDC generate funding from a large and relatively wealthy corporate sector, state and federal grants, and services such as LA EDC's economic consulting endeavours. It is a difficult model at present for rural regions.

Business Council. The Business Council is also a non-profit model that is membership-based, primarily of business members but sometimes with community partners as well. While Councils partner with the public sector, jurisdictions are not usually direct investors in the general support of a Council. Jurisdictions may invest in specific initiatives, especially cluster or policy initiatives. Other investors may include foundations. Councils usually do not conduct EDC-type activities such as business attraction and marketing. Many focus on policy issues and business leadership engagement related to economic development, including education and workforce development, workforce housing, infrastructure, water, and "business climate" policy issues. Most business councils, such as the Fresno Business Council, the Monterey County Business Council, and the Orange County Business Council, are county-based.

For example, the Fresno Business Council is a co-partner on the Fresno Regional Jobs Initiative (RJI) – an economic cluster project for the Fresno area region, in partnership with CSU Fresno, Office of Community and Economic Development and area cities. The Monterey County Business Council partners with Monterey County, CSU Monterey Bay, and other organizations on economic cluster projects and other initiatives, including most recently on regional broadband implementation and the creation of a new center for economic innovation funded by the Economic Development Administration. The Tahoe region's resident business council, the Sierra Business Council (SBC), is a more broad-based Council as it covers a much broader area than usual - the length of the Sierra - and manages very diverse initiatives, including those related to Geotourism. SBC's membership includes local elected officials. SBC is a resource partner for the Prosperity Plan.

Economic Development Districts (EDDs). Economic Development Districts are usually multi-county non-profit organizations funded in part by the Economic Development Administration. They prepare the regional Comprehensive Economic Development Strategies (CEDS) for a region which identifies key challenges, opportunities and priority projects for federal economic development project funding. EDDs prepare grant applications, provide technical assistance to local jurisdictions and businesses, and can operate revolving loan funds, among other functions. The only EDD in Nevada is the Western Nevada Development District (WNDD), which serves as the fiscal administrator for the Prosperity Plan and covers seven counties. Sierra Economic Development Corporation (SEDCorp) serves four California counties including El Dorado and Placer counties, and provides SBA lending services for Northeast California. Both EDDs are partner organizations for the Prosperity Plan.

City and County-led Economic Development Offices. Both California and Nevada jurisdictions that are part of the Lake Tahoe Basin have city and county economic development offices. These offices facilitate local economic development efforts, provide assistance to local businesses, and

partner with public and private sector entities on strategic initiatives. Due to their jurisdictional nature, they would not be appropriate entities to operate a regional economic development program but they do have a regional focus and are full partners in Prosperity Plan.

California Partnership for the San Joaquin Valley. The Partnership was created in 2006 by an Executive Order by Governor Schwarzenegger. It is a formal partnership between the Governor's Cabinet (eight agencies) and the eight counties of the San Joaquin Valley. This model is mentioned here because it led to a broad-based economic strategy to raise the standard of living and economic competitiveness of the region. It was created because the Valley was one of the poorest regions of the country but one with great assets. The effort was led by a collaboration of federal agencies working in the Valley, including HUD and EDA.

Noteworthy elements for the Prosperity Plan include a commitment to collaboration across sectors and jurisdictions, a Three E's (economy, equity, environment) approach, a focus on regional clusters of opportunity, measurement of progress toward outcomes, and alignment of public sector resources and policies to support regional priorities. The Strategic Plan is implemented as a true partnership and provides a focused gateway into regional priorities.

The Partnership has a board comprised of public and private sector representatives and is managed by CSU Fresno Office of Community and Economic Development, which also supports implementation of initiatives. There are several work groups for initiative implementation and they are led primarily by leadership organizations with capacity and expertise, along with volunteer leaders including private sector partners. This is an agile management and implementation process that leverage partnership assets and benefits from the institutional capacity of its anchor organizations – CSU Fresno (www.sjvpartnership.org).

Next Steps for Prosperity Plan Governance

The next step for the Prosperity Plan governance structure is to create a 501 (c)(3) so that that funds can be received for project and administrative funding and collaborative organizational capacity can be developed. In the interim the Prosperity Plan has the benefit of philanthropic, non-profit and educational partners which can host the project through the start-up phase as additional funding is pursued.

As mentioned, the successful implementation of the Prosperity Plan requires on-going capacity to oversee and guide cluster and region-wide initiatives and engage a wide range of businesses, institutions, partner organizations and residents in the attainment of the vision for a prosperous region. These are lessons learned from other cluster initiatives. The specific implementation structure for the Prosperity Plan should be further defined during the transition phase (the next six months).

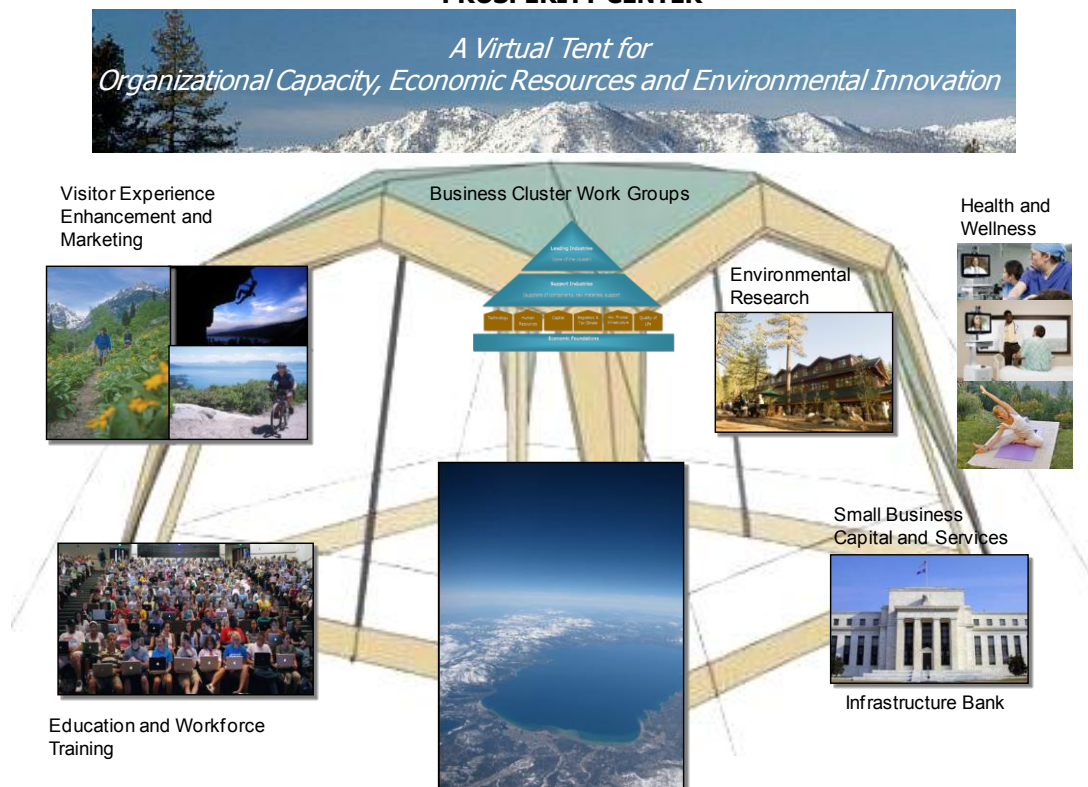
Prosperity Center Concept

There are two primary functions envisioned for the Prosperity Center. They build on the Steering Committee process which involved all the jurisdictions from the Tahoe Basin.

The first function would be to help coordinate the diverse efforts underway or emerging toward implementation of the Prosperity Plan initiatives. There are many private organizations as well as local government and educational institutions operating in the Tahoe Basin, and it would not be the intention to duplicate efforts of these groups. There is a greater need to coordinate and communicate the efforts and to provide a better means of networking similar activities. For this function, a critical tool for the Prosperity Center would be a highly functional website, which provides access to informational resources and provides the facility to post bulletin board items and blogs that can help businesses and partners network and connect on new ideas. The concept portrayed in the image below (Figure 18) is an open tent, under which a variety of initiatives undertaken by other organizations can be coordinated and networked.

The second function would be to house the governance organization, as discussed in the section above, including providing a corporate entity such as a 501(c)3 or (c)6 to receive funds from a variety of sources including private sector, government and community foundations in support of the overall Prosperity Plan implementation and specific cluster initiatives and cross-regional initiatives.

**FIGURE 18
PROSPERITY CENTER**



Source: ADE, Inc.

PHASE 2 REGIONAL PARTNERS ENGAGEMENT

The Prosperity Plan process identified a number of regional issues that must be addressed through basin-wide collaboration. These issues are discussed briefly below, and it is recommended that the economic cluster work groups engage with regional partner organizations to address specific solutions. Several of these issues were also recommended for follow up in the Watershed Sustainability Measures Report.

Environmental Redevelopment

The need to address deteriorated properties is a major emphasis of the Prosperity Plan. It is a concern of all three clusters because it affects physical environmental conditions as well as the image of Lake Tahoe and the economic and social well being of businesses, workers and families in the Basin.

The Bi-State Compact for Lake Tahoe (Public Law 96-551) under which TRPA was created declares that in order to preserve the scenic beauty and outdoor recreational opportunities of the region, “there is a need to insure an equilibrium between the region’s natural endowment and its manmade environment” (Article 1 (as) (10)). As a means of achieving this balance, it is recommended that the Prosperity Plan be adopted by TRPA as the economic plan for the TRPA Regional Plan Update.

When the Regional Plan Update is adopted, TRPA will proceed to complete its revision of development standards to match the goals and policies in the Plan. It is imperative that the new development standards meet not only state of the art scientific criteria, but also provide an economically feasible means to achieve redevelopment of properties that are currently heavy polluters of the Lake. Moreover, it is important to recognize that many of the older properties that create environmentally deleterious runoff are smaller sites, where financial resources are extremely limited. TRPA needs to focus on methods of pooling resources and providing incentives that will enable smaller properties to be transformed into environmentally sustainable sites, perhaps through a process of clustering redevelopment and creating larger open spaces in formerly developed areas, especially in sensitive locations.

Consistent with this approach, TRPA and the Tahoe Basin’s local governments should collaborate to establish a coordinated approach to planning and project review that accomplishes the following:

- Establishes a streamlined review process for environmental redevelopment, mixed use or infill development that deliver “*net environmental gain on the ground,*” with a maximum stipulated period for the “approve/disapprove decision.”
- Provides a mechanism for ensuring that small commercial projects, including smaller tourist accommodation projects, can feasibly participate in community revitalization.
- Provides an improved process for planning, design and enforcement of “appearance standards.”

Capital Resources

The lack of capital for both private sector and public sector improvements impedes the ability of the Basin to reverse the trend of degradation in the region. This is an issue that affects all of the

business clusters as well as local city and county government agencies. Both the Tourism and Visitor Services and the Health and Wellness clusters are affected by negative trends in population and market share that reduce the interest by banks to invest in business improvements and expansion. The environmental innovation cluster requires capital for new business start ups and technology development as well as expansion of existing businesses.

Central ideas for the establishment of local capital sources include the following:

- Regional Infrastructure Bank for public facilities and improvements, possibly using an endowment fund model to attract seed capital from local banks, pensions funds and other investors, and a partnership model to support bi-state and public-private sector infrastructure projects;
- Lake Tahoe Basin investment funds for business start up and expansion investments; a financial investment firm is working with regional partners to create the Nevada Economic Prosperity Fund that could be aligned with development of a business technology incubator, as an initial effort.
- Involvement of Community Foundations for projects that meet target criteria for philanthropy;
- Application to EDA, SBA, USDA, HUD and other federal and state agencies for Phase 2 funding to launch technology commercialization within the Prosperity Center, as well as infrastructure investments to support Prosperity Plan projects;
- Coordination of services and resources from the UNR Business School, the Sierra Angels, and the UC Davis Entrepreneurship Program to connect local technology businesses with specialized capital sources and talent;
- SBA Microenterprise and cluster funding, and resources available through the SBDCs (small business development centers), county and city economic and redevelopment programs, and SEDCorps, including revolving loan funds;
- Transfer of Wealth (TOW) project to grow community wealth to invest in local projects and initiatives.
- New funds from the California Public Utilities Commission's California Advanced Services Fund for support of regional broadband consortia and a possible revolving loan fund.

Transportation Solutions

The TRPA Regional Plan recognizes the need for an efficient and lower polluting transportation system for the Basin that improves mobility and access throughout the Tahoe Basin. This creates an important opportunity for the region to demonstrate environmental sustainability at a regional level. Ideas from the cluster work groups include a comprehensive electric vehicle transportation and infrastructure system within the Basin; greater use of the lake for transportation purposes including linked waterways, well planned pedestrian connections and bikeways that interface with the Tahoe Basin wide transportation system; and land use and housing policies and programs that help maintain the workforce within the Basin and reduce commuting levels. This issue was referenced in

the Watershed Sustainability Indicators Report as one of a handful of must do goals for the Basin. Similarly, maximizing local sourcing of food and other supplies will help reduce goods movement from long distances into the Tahoe Basin. Funding should be explored for a demonstration project for alternative transportation.

Workforce Housing

The environmental scan documents the problems of housing affordability for first responders, teachers, nurses and other workers in the Tahoe Basin, not to mention housing for lower income workers and families struggling with the high cost of living in the Basin.. This need is recognized for the TRPA Regional Plan Update but it will require a concerted effort from both the public and private sectors to improve the supply of workforce housing.

Workforce Training/Education

Education partners have participated throughout the development of the Prosperity Plan but an important implementation step will be to convene a comprehensive group of education and training providers to help design targeted workforce initiatives to support economic cluster expansion. There may also be funding to support targeted training programs through the Workforce Investment Boards (WIBs) in both the Nevada and California counties serving the Basin.

Key ideas identified through the cluster work groups include the following:

- Career pathways alignment between K12, community college, four year institutions linked to the occupations emerging from the three economic clusters.
- Certificate programs through the community colleges aligned with the cluster opportunities.
- Partnership between the education providers and the Workforce Investment Boards (WIBs) focused on bringing qualifying residents (displaced workers, incumbent workers) into the emerging cluster occupations. Historically this one of the best ways for community colleges to increase overall enrollment is by bringing workers in for short term training and linking that training to fully articulated degree programs.
- Linkage to the R&D transition to commercial application career pathway opportunities through the Environmental Innovation cluster.
- Framing the “human capital” (workforce, entrepreneurship, innovation) component of all economic development initiatives; the driver for the innovation economy.
- Leveraging funding/grants with economic development partners by targeting the human capital/capacity/workforce impacts and prospective solutions.
- Facilitating leadership development (civic, community, business) for existing students of LTCC, Sierra College, K12 (seniors).
- Small business development through SBDCs affiliated with TahoeChamber.org , Truckee Meadows, WNC, UNR and SedCorps.
- LTCC as a “comprehensive college” including “centers of excellence” offering specialized skills training in coordination with community partners.

- Environmental education as the driver for community involvement in environmental redevelopment, restoration and preservation
- Resource attraction to the basin via the education providers (equipment, technology, volunteers, etc.).
- Health careers gateway through the K12/CC with linkages to local health and wellness careers and entrepreneurial opportunities.
- Entrepreneurship training and development.
- Hosting/convening events including seminars, planning, and tourism oriented specialized education offerings emanating from the cluster initiatives.
- UNR, UCD, Sierra Nevada College and other mentoring and internship programs to connect students with local businesses. Expand to consider ways to develop career options within the Tahoe Basin.

Broadband and Wireless Infrastructure

Information technology is critical to the ability of local businesses and agencies to function. This was identified as a high priority by the Tourism and Visitor Services cluster as an essential part of the visitor experience and it is also critical to the Health and Wellness cluster's ability to implement telemedicine on a broader scale. It is certainly also endemic to the ability of technology companies and others to thrive in today's economy.

While Truckee and South Shore benefit from nearby major broadband conduits, many other areas of the basin are not adequately served. The local governmental jurisdictions in the Basin have a critical role to play, in concert with broadband service providers, major universities in the region, and other institution partners, to work toward a complete broadband wireline and wireless system throughout the region.

The California Emerging Technology Fund (CETF) has identified potential roles for local government in supporting and encouraging broadband development, including setting policy, providing planning, establishing local regulation, and serving as both a consumer and a service provider. CETF offers more than a dozen policy components and related implementation ordinance provision to help local jurisdictions work systematically with broadband providers to increase the extent and quality of services, close the digital divide, and increase consumer use of services. Additional research and/or initiatives are needed for broadband deployment in Nevada; CETF is interested in partnering for Basin-wide solutions.

VI. CLUSTER INITIATIVES

CLUSTER WORKGROUP PROCESS

The clusters meetings convened for the Prosperity Plan development process addressed general issues across each cluster and developed the preliminary action plans outlined below. **The next step is to recruit cluster work group initiative leads (underway) and identify and engage cluster participants interested in each of the specific action areas. The process will build upon the project contact list and involvement of cluster participants and stakeholders to date, complemented by additional consultation with sector representatives and input from the community meetings, Economic Forum and Environmental Summit. The cluster leads will convene topical work groups to move forward with an implementation agenda for each initiative.**

ENVIRONMENTAL INNOVATION

The three cluster work groups identified many potential economic opportunities that arise from the unique asset of the Lake and its alpine location. The Environmental Innovation Cluster Work Group identified three strategic initiatives: to expand Tahoe-based alpine climate change/sustainability research and commercialization, and visitor and community educational opportunities; promote green business and green building; and support development of renewable energies. All of these efforts would contribute to the long-term sustainability of the Basin and achievement of environmental goals such as improved air and water quality.

The Lake Tahoe Basin is a living laboratory, with a great deal of research and education occurring through or sponsored by TRPA; the U.S. Forest Service; the California Regional Water Quality Control Board, Lahontan Region; the Nevada Division of Environmental Protection; universities, colleges and research institutes; other federal and state agencies and conservation districts; local governments; utility districts and energy companies; private firms and other organizations. Basin-related research and resource management brings hundreds of millions of dollars to these institutions. These assets should be better coordinated and leveraged for higher impact and multiple benefits in the Basin, in turn supporting the existing partners and building upon the great depth of existing scientific knowledge and technical expertise.

Benefits could include increased support for scientific research and applications; improved environmental outcomes and a revitalized built environment through applied research and sustainable development practices; testing and technology transfer to commercialize environmental innovation businesses; and housing for researchers, students and visiting faculty. These improved and expanded assets would support the Tourism and Visitor Services cluster, and contribute to increased quality local job creation and retention of young workers who want to stay in the Basin.

Other opportunities include adoption of green business practices such as green lodging, green building/redevelopment, energy efficiency, and recycling. All of these efforts would contribute to the long-term sustainability of the Basin. Another priority should be to develop renewable energies

in the Basin, to localize energy systems, to help meet greenhouse gas emissions targets which must be addressed by TRPA in the upcoming Regional Plan Update, Sustainable Communities Strategy, and meet state air quality attainment targets.

This cluster is critical for improving the Basin's environmental outcomes, community livability, and increasing levels of poverty. Through these initiatives, the role of TRPA could shift to one of facilitating a framework for innovation rather than being perceived as a constraint.

CLUSTER INITIATIVE 1: EXPAND TAHOE-BASED ALPINE CLIMATE CHANGE/SUSTAINABILITY RESEARCH AND COMMERCIALIZATION

The concept of the Tahoe Basin as a world class center of innovation and research on alpine climate change and sustainability, coupled with visitor and educational experiences related to the Basin's ecology and science, resonated strongly with cluster participants and community members. A number of universities and federal and state agencies conduct a wide range of world class environmental research, data monitoring and resource management activities within the Basin. They represent vital partners for helping transition the Basin's economy to a more sustainable and knowledge-based foundation. In addition, new research from UC Davis addressing the overall impacts of climate change on the Tahoe Basin highlights the challenges and imperative of for planning for climate change and sustainability through strong science.

Participants in the Environmental Innovation Cluster meetings suggested the need to explore ways of better connecting the diverse research efforts and assets with local entrepreneurship development, product commercialization - possibly through a business incubator and investment fund, and environmental education and experience, such as through an "open to the public" interpretative feature. These activities would help:

- To broaden the understanding of the breadth of work going on within the Basin and their applications and impacts and the potential for local solutions;
- Export knowledge on critical global issues such as water quality for problem solving on the regions and areas, helping to grow local firms and jobs;
- Generate additional funding opportunities through regional partnerships linked to economic vitality initiatives;
- Provide meaningful internships and possibly jobs for students; and,
- "Inspire the future stewards of Lake Tahoe."

Preliminary discussions with several of the lead agencies and institutions inside and outside of the Basin have revealed a strong interest and willingness to work with local partners to achieve these outcomes. Further work is needed to define specifically how such a multi-purpose initiative should be structured. Academic-private sector partnerships that focus on technology-led economic development are a particular focus for federal agencies such as the U.S. Department of Commerce, Economic Development Administration. Appendix D provides an overview of some projects that embody characteristics of a multi-purpose initiative, which are summarized below. While many of

these projects have signature facilities on -site, it also would be possible to site facilities at various locations around the Basin, building on existing assets and connecting them in a network with several proposed smaller scale environmental and sustainability projects.

- **The Monterey Bay Aquarium** – is a renowned visitor center providing education, outreach, internships and research on conservation of the oceans, through partnerships with federal and state agencies, universities and others. The Aquarium is estimated to have an impact on the California economy of about \$250 million a year, creating more than 900 jobs both through direct employment and spending as well as indirect. The Aquarium employs approximately 425 full and part-time staff and is helped by hundreds of volunteers.
- **Turtle Bay Exploration Park (Shasta County)** – is a 300 acre campus containing education, meeting and entertaining activities showcasing local and regional history, including that of Native Americans, natural resources and growth patterns. The Park employs more than 230 people and provides an estimated \$9.6 million of economic activity to the Shasta County area. The Sundial Bridge, a pedestrian bridge over the Sacramento River, is a signature piece of architecture by a renowned architect.
- **Institute of Arctic and Alpine Research (INSTAAR) at University of Colorado, Boulder** – sponsors research on polar and alpine regions and the affects of climate change, among other topics, with more than 200 researchers and field sites on all continents and in the oceans. The Consortium for Capacity Building is an INSTAAR unit that is part of a Clinton Global Initiative, focused on outreach and education. Scientists advise legislators, businesses and community leaders on environmental change issues.
- **National Center for Atmospheric Research (NCAR), Boulder, Colorado** – has several research facilities and laboratories near Boulder and additional facilities elsewhere. NCAR has approximately 1,025 research, technical and support staff and a budget of \$165 million; it provides the university research and teaching community with access to significant analytic tools including aircraft. Facilities include a Visitor Center and space for community meeting events.
- **Indiana University Emerging Technologies Center (IUETC)** – incubates and accelerates life sciences, biotechnology and bioinformatics companies and promotes IU and industry partnerships to foster economic growth.

The key partners on the environmental research and monitoring side include the following:

Tahoe Science Consortium (TSC). Formed in 2005 through an MOU among UC Davis, UNR, the Desert Research Institute (DRI), the US Geological Survey (USGS), and the United States Forest Service (USFS) Pacific Southwest Research Station, its mission is to foster a greater level of collaboration between research organizations and resource management agencies working in the Basin. TSC has worked with agency representatives to identify priority science themes to guide selection of projects in the areas of climate and meteorology, air quality, lake quality and invasive species, water quality, forest ecology and health, including reduction of wildfire risk. TSC is housed

in the Tahoe Environmental Research Center (TERC) building at Sierra Nevada College (SNC) in Incline Village.

Tahoe Environmental Research Center (TERC). Operated by UC Davis, TERC is dedicated to research, education and public outreach on lakes and their surrounding watersheds and airsheds. The Center is committed to providing objective scientific information for restoration and sustainable use of the Lake Tahoe Basin. As noted above, TERC is located at SNC and its LEED Platinum-rated building has hosted numerous educational programs for school age children and other visitors, showing the public various energy saving technologies on a “semi-industrial” scale. TERC recently opened the Erikson Education Center and Demonstration Garden at its Tahoe City Field Center located just east of Tahoe City. This Center offers docent guided tours and demonstrations oriented to both school age children and adult visitors.

TERC is very interested in working with participants of the Environmental Innovation and the Tourism and Visitor Services Clusters to integrate its research and educational programs and facilities into the overall rebranding program for the region, and to promote awareness of the research-related activities and how this knowledge is being applied.

TERC’s research relies on the joint efforts of faculty, students, and researchers from around the world. A growing problem is how to house them within the Tahoe Basin. There is an existing historic but marginal building adjacent to the interpretive facility at the Hatchery that could be redeveloped as a “green house,” a multi-person living space for short term stays for students, researchers and visiting faculty. Like the TERC building, it could be LEED Platinum-rated, and used for tours by the public to feature energy saving technologies more appropriate to the residential level. This redevelopment would promote the Basin as a center of innovation around sustainability and meet a strong need to house visiting researchers.

TAHOE ENVIRONMENTAL RESEARCH CENTER



Desert Research Institute (DRI). With locations in both Reno and Las Vegas and some satellite locations, DRI is the environmental research arm of the Nevada State System of Higher Education, which also includes the University of Nevada (UN). The National Science Foundation ranks DRI in the top 20 institutes nationally in research and development expenditures in environmental sciences. With a staff of approximately 500 scientists, technologists, students and other support staff, DRI has a global reach, with more than 300 projects around the world. Annual research and operations total more than \$50 million a year. Faculty members are nontenured and responsible for their own salaries from external grants and contracts. DRI emphasizes an entrepreneurial approach to conducting and applying the results of its scientific research.

DRI has three core divisions and four science centers. The Centers facilitate interdisciplinary research across DRI's three divisions and through collaboration with other organizations. They foster development of interdisciplinary and inter-institutional research teams that explore emerging areas in their fields, and can serve as a neutral forum to assess initiatives. The Center for Watersheds and Environmental Sustainability addresses issues of decline in Lake Tahoe's clarity such as sources of nutrients and fine sediment in stormwater runoff, and evaluates the effectiveness of best management practices (BPMs). The Division of Atmospheric Sciences incorporates climate change and air quality as some of DRI's many atmospheric research topics, including air quality in the Tahoe Basin. There is a new Clean Technologies and Renewable Energy Center which is potential opportunity for partnerships in the Basin. DRI experts also lead on such efforts as the Western Regional Climate Center. DRI has a new Vice President for Research and his role is to help position DRI as a leader in alternative energy, hydrological research, climate-change research, and analysis of ecological changes and impacts. **There have been successful commercialization projects through the work of DRI researchers and there is interest in seeing how future efforts can align with the Prosperity Plan.**

Both DRI and UNR have a commitment to increase public understanding of the Tahoe Basin, its water resources and the practices that will protect them in the future. Outreach and education activities include short courses, workshops, field tours, institutional programs, colloquia and symposia. They produce extremely informative materials on ongoing research projects which should be widely distributed.

University of Nevada Reno (UNR). UNR's Office of Undergraduate and Interdisciplinary Research is home to the Academy for the Environment as well as programs on campus sustainability, undergraduate research, and interdisciplinary environmental graduate programs, and is a member of the Tahoe Science Consortium. Although the program has been scaled back due to budget cuts, the Academy continues to work with campus leaders to support interdisciplinary environmental research and guides internships for students. There is interest in developing internships for Basin-related efforts. UNR researchers conduct research in such areas as the Lake Tahoe Watershed Assessment and environmental public policy, and in helping to develop a strategic framework for research priorities at Lake Tahoe.

The UNR School of Business is interested in establishing a presence in the Basin, and is collaborating with partners in the Basin to explore the potential for a technology-related business

incubator and creation of an investment fund. Looking at the policy implications of environmental research applications, UNR's Political Science Department will offer a new course through the extended studies program on Sustainability Management and Environmental Entrepreneurship for Fall 2011, and will work with Basin partners.

Nevada Institute for Renewable Energy Commercialization (NIREC). NIREC is a 501(c)(3) public-private partnership, also housed at TERC, consisting of a consortium of research institutions, utilities and other energy producers, energy distributors and users, corporations and venture capital organizations. According to Ian Rogoff, NIREC Board Chairman, "NIREC integrates researchers, financial capital and experienced entrepreneurs and executives to identify and fund renewable energy solutions. Ultimately, NIREC's principal mission is to create jobs through the commercialization and widespread deployment of renewable energy technology."

US Geological Services (USGS). The USGS is one of the partners in the Tahoe Science Consortium. The USGS California Water Science Center, based in Sacramento, is focused on understanding, managing and protecting California's water and other natural resources. Techniques including sampling and testing of groundwater quality, stream flow, water quality and assessing the impact of climate change on water sheds.

USFS Pacific Southwest Research Station (PSW). Located in Albany, California, this facility manages a wide range of research activities throughout the Western US. This includes the Tahoe Science Program, which receives funding through the [Southern Nevada Public Lands Management Act](#) (SNPLMA) to conduct science to inform efforts to restore Lake Tahoe and its watershed, as authorized in the [Lake Tahoe Restoration Act](#). PSW assumed responsibility in 2006 (Round 7 of SNPLMA) for sponsoring science projects using SNPLMA funds. The PSW Station established a competitive grant award program with a rigorous [peer review process](#) coordinated by the [Tahoe Science Consortium](#). Currently, PSW has released an RFP for science projects to be funded under Round 11 of the SNPLMA.

Green Entrepreneurship Academy. The UC Davis Center for Entrepreneurship holds a one-week academy each summer to share expertise on how to commercialize environmental technology research. The program is held at the TERC building at Sierra Nevada College and is open to science and engineering senior undergraduates, graduate students, post-doctoral researchers and faculty. The program is national in scope and is taught by venture capitalists, entrepreneurs, university faculty, intellectual property officers, industry sponsors and angel investors from around the country, and includes the Sierra Angels.

UC Davis Energy Institute. The UC Davis Energy Institute focuses and coordinates energy research and education on the campus and facilitates interactions with other institutes, laboratories, and programs across the nation and around the world. The breadth and depth of energy research on the campus supports the vision for building a world-class institute in energy with particular focus on sustainable energy system design. The Institute will also serve as home to a proposed Energy Graduate Group providing advanced degrees in energy science, technology, and policy. There is a potential alignment with the Tahoe Basin on biomass and other sources of renewable energies.

UC Davis Research and Technology Transfer. UC Davis has a very strong emphasis on technology transfer, commercialization, entrepreneurship and public-private sector partnerships. They are partners with Valley Vision on the Green Capital Alliance, for example. In October 2010 the College of Engineering launched UCD's first on-campus technology incubator. The primary goal is to contribute to the local economy. The incubator initially will accommodate five companies, building on UCD's research. UCD's Chancellor is pushing to increase UCD's stature in research and technology transfer. UCD has joined a new global climate change coalition of public and private sector signatories to combat climate change and promote the green economy.

Sierra Nevada College (SNC). A member of the Prosperity Plan Steering Committee, SNC in Incline Village is implementing the Lake Tahoe Sustainable Campus Initiative. This initiative will contribute to the College's capacity to serve as a center for regional innovation on sustainability, especially around sustainable buildings design and energy efficiencies. As noted above, the College is already home to the Tahoe Science Consortium, the Tahoe Environmental Research Center, NIREC and potentially a Siemens Innovation Hub on engineering and sustainability.

Southwest Climate Center. UC Davis and DRI have been chosen by the federal government as two of six universities to co-host a new Southwest Climate Science Center. They will work to understand the effects of climate change on the region's natural and cultural resources. This will bring new assets to the region for the study of the impacts of climate change and opportunities for the Basin.

The specific initiatives around a Tahoe-based comprehensive alpine climate change/sustainability research and technology center program identified in the Prosperity Plan cluster meetings were focused in the following areas:

- Ongoing entrepreneurship programs for local businesses and start ups, perhaps including an incubator facility and innovation investment fund.
- Retention of interns trained by the above entities in jobs in the Basin.
- Increased public education about the Tahoe Basin environment through a public interpretive center or similar venues. While TERC currently offers programs in these areas, there is an opportunity to create stronger links to the business community and also to broaden its focus on public education beyond the Lake itself to the surrounding forests and issues related to climate change and sustainability. This would connect to the efforts Basin-wide to rebrand the visitor experience to include more participatory education and volunteerism activities. It could also connect with other plans for sustainability demonstration sites or visitors centers around the Basin, including a potential project in Kings Beach and the proposed Eco-Center in South Lake Tahoe. The Eco-Center would redevelop existing buildings as a living lab on the most current green building and energy efficient techniques. The property will be rebuilt as a small scale model of permaculture, with a greenhouse and a "Welcome to the Watershed" education center. Other projects in the region including potential redevelopments of lodging facilities are exploring the opportunity to link sustainable design and redevelopment with the alpine center concepts.

- Signature Visitors Center. Cluster participants identified the concept of a larger scale “signature” facility such as the Monterey Bay Aquarium as an example of an asset that is a valuable visitor-serving facility linked with an iconic environmental resource (Monterey Bay), with a deep level of marine-related research that educates visitors about the ecology of the region and stewardship of the ocean, habitats and species. Another example is the Turtle Bay Museum in Redding, California, which educates visitors about the history and ecology of the Sacramento River and the forest region. However, given the scale of resources required to develop such a facility, and the underutilized aspect of existing resources such as the TERC interpretive centers, it is more feasible to better link the Tourism and Visitor Services cluster with the environmental education partners to support and collaborate with them for marketing and other resources as the region rebrands itself as a nature-based sustainability destination. See Appendix D for case studies of research-related institutions and nature and sustainability-based research and visitors centers.

The following chart lists Cluster Action items and potential collaborative partners for implementation by the Cluster Work Groups. **These partners are illustrative and more partners should be recruited as implementation proceeds.** The lightly shaded areas are high priority actions; however, these action plans will be refined once the Cluster Work Groups actually launch.

ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS	COLLABORATIVE ORGANIZATIONS
ALPINE CLIMATE CHANGE/SUSTAINABILITY RESEARCH AND TECHNOLOGY CENTER/INCUBATOR/VISITOR ASSETS	CLUSTER WORK GROUP
1. Consider opportunities to expand facilities for the center to include space for ongoing science/research as well as meeting education/conference space. Identify/develop alpine climate change/mountain quality of life programs. Example: Innovations developed here to improve clarity transferred into how to get clean drinking water elsewhere.	TERC/DRI/UNR/UCD, Tahoe Science Consortium, Sierra Nevada College, Hotels and conference centers
2. Link science with capital at an incubator. Create a relationship with National Resource Conservation Service as a potential funding source. Explore feasibility of incubator development, possibly in Douglas County facility retrofit, or “incubator without walls.”	TERC, DRI, UNR Academy and School of Business Capital Resources work group, SBDCs, NIREC Businesses
3. Redevelop the existing facility adjacent to TERC’s Tahoe City Interpretive facility at the Hatchery to a “green house” for visiting researchers, residential green building demonstrations.	TERC, Sierra Green Building Assn., Contractors Assn. of Truckee Tahoe, North Lake Tahoe Resort Assn.

ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS	COLLABORATIVE ORGANIZATIONS
ALPINE CLIMATE CHANGE/SUSTAINABILITY RESEARCH AND TECHNOLOGY CENTER/INCUBATOR/VISITOR ASSETS	CLUSTER WORK GROUP
<p>4. Define “environmental credits” in a project in order to sell ideas to private business and capital sources that can provide innovation and efficient provision of ecosystem services. Decide if center will be private/public/academic institution. Demonstration project to alter policy/regulation, barriers. Apply existing technologies to new environments. Identify environmental goals and “work backwards” to innovate. We need innovation to meet the clarity goals. Current technology can not reach the goal.</p>	<p>TRPA, TERC, DRI, UNR, Capital Resources Workgroup, NIREC Businesses</p>
<p>5. Become the model for policy development across borders.</p>	<p>TRPA, local jurisdictions, universities, businesses</p>
<p>6. Identify visitor serving locations around the Lake once a few successful projects have been accomplished.</p>	<p>TERC, Research institutions, non-profits, visitor-serving businesses</p>
<p>7. Develop internship and mentoring programs for students in environmental technology, sustainable development and environmental policy</p>	<p>UCD Center for Entrepreneurship, Sierra Nevada College, UNR Academy, UNR Business School, Community Colleges, businesses</p>

CLUSTER INITIATIVE NO. 2: GREEN BUSINESS AND GREEN BUILDING

There is a substantial effort in the Basin to encourage all kinds of businesses to “go green.” A number of successful examples exist locally of environmentally sustainable business operations, including in energy efficiency, composting and other waste recycling. The lodging industry is one of the groups leading in this effort. The focus of the first part of this initiative is to coordinate these efforts in order to expand their scope and elevate a broader awareness of environmental sustainability among the business community and households alike. Several organizations such as local utilities and the Sierra Business Council are sponsoring energy efficiency and other related programs. Adopting practices such as energy efficiency measures will result in cost savings to businesses, households and institutions; help reduce greenhouse gas emissions as required by the Regional Plan; and provide opportunities for new products and services for locally grown businesses and jobs.

The construction industry is a significant component of the environmental innovation cluster in terms of the number of jobs in those businesses and the need to institute green building practices as environmental redevelopment proceeds. Organizations such as the Sierra Green Business Association (SIGBA) help contractors learn new building techniques including retrofits and also represent the building industry as new standards are developed. The second part of this initiative focuses on the business opportunities associated with promoting green building practices. California has adopted a new Green Building Standards Code (CALGreen, Title 24 Part 11) that sets new requirements for residential and non-residential buildings to reduce construction waste, increase

building energy efficiency, and reduce indoor water use. It takes effect in January 2011 and will advance the adoption of green building technologies.

ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS	COLLABORATIVE ORGANIZATIONS
1. Basin-Wide Green Business and Consumer Education Program	Cluster Work Group
1.1 Unite south and north Tahoe green business organizations.	Chambers, Green Business Co-op, Keep the Sierra Green
1.2 Audit current green business entities to ensure compliance with standards and to promote ongoing environmental education	Same as above, utilities
1.3 Create a unified web based resource guide in partnership with environmental organizations throughout the Basin. Utilize CA Air Resources Board information to help business access resources and learn new techniques for reducing their carbon footprint.	Same as above, Ca. Air Resource Board (Cool California.org), utilities
1.4 Identify rebates to promote retrofit market: Utility companies, Federal stimulus funds, Green lending.	Utilities, Green Business Co-op, Keep the Sierra Green, Sierra Business Council
1.5 Create programs to motivate Tahoe residents to become green/more efficient, including publicity mobilization, media involvement, do-it-yourself training days, education forums. Design the educational programs to change behavioral patterns – awareness, acceptance, local pride, self sufficiency.	Green Business Coop. Keep the Sierra Green, SIGBA, Sierra Business Council, utilities, Compost Tahoe
2. Green Building Contractors Training	Cluster Work Group
2.1 Redefine construction skills in terms of green building standards and LEED, focusing on building retrofits as an accessible market.	Colleges, Contractors Assn. of Truckee Tahoe (CATT), SIGBA
2.2 Establish training for green building contractors/construction workers for both residential and commercial applications.	Colleges, Workforce Investment Boards, CATT, SIGBA
2.3 Identify rebates to promote retrofit market: Utility companies, Federal stimulus funds, Green lending.	Utilities, Sierra Business Council
2.4 Energy retrofits could be a major business opportunity (see Truckee Donner Public Utility District programs, Placer County commercial energy retrofit financing program). Research the benefits of community energy assessment programs like O Power and also Energy Services Companies (ESCOs), which would provide a broad range of energy solutions and underwrite green tech projects. These may be good ways to implement environmental and financial partnerships for energy conservation and retrofits.	Utilities, Colleges, City of South Lake Tahoe Sustainability Commission

CLUSTER INITIATIVE NO 3: RENEWABLE ENERGY

Significant opportunities exist to develop renewable energy systems within the Basin. These projects not only will contribute to energy self-sufficiency and reduced green house gas emissions, they can also serve as potent and visible educational demonstrations for visitors to the region, reinforcing the overall rebranding of the visitor experience in the Basin.

ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS	COLLABORATIVE ORGANIZATIONS
RENEWABLE ENERGY	Cluster Work Group
<p>1. Promote development of existing technologies like heat pump technology (heat exchangers) which have been used in South Lake Tahoe to tap ground water for heating. Pilot projects have been built and further expansion is expected, given that payback time on these projects is less than ten years. This is an underutilized resource that has been demonstrated at several locations in the region.</p>	<p>UNR, California Tahoe Conservancy, regional utility districts, LTCC, UC Davis Energy Institute, DRI Clean Technologies and Renewable Energy Center</p>
<p>2. Support efforts of Placer County to develop a proposed pilot biomass utilization facility for Kings Beach that would generate local green energy, reduce forest fuel load, improve air quality, and serve as a model for small scale mountain biomass projects.</p>	<p>TRPA, business and community groups, Valley Vision, NIREC, UC Davis Energy Institute, USFS, Placer County, DRI Clean Technologies and Renewable Energy Center, Placer County</p>
<p>3. While Nevada (NV) Energy is a partner in the Placer County biomass project, more effort is needed for this utility to create renewable energy incentives for the Basin comparable to those available from California utilities. NV Energy does not yet have any generating capacity and this is an opportunity to increase use of renewable energy resources.</p>	<p>TRPA and business and community groups, DRI Clean Technologies and Renewable Energy Center, CalPeco, California Energy Commission</p>
<p>4. The Basin should align with the direction of national energy policy. The U.S. Department of Energy is funding projects related to local energy generation storage. Lithium battery technology is the focus. This is big enough to make a huge economic difference and will help create a national infrastructure for electric vehicles as well as other energy production/storage. How can the Basin tap into this? The Basin needs to develop charging infrastructure for electric vehicles. This would show alignment, open up sources of funding, and help with emissions reductions. I-80 is already the electric highway.</p>	<p>TRPA and local utility districts, NIREC, UC Davis Energy Institute, DRI Clean Technologies and Renewable Energy Center, jurisdictions, Tahoe Transportation District</p>
<p>5. The City of South Lake Tahoe Sustainability Plan is an asset for the region. County jurisdictions within the Basin should adopt similar strategies to promote sustainable communities. The Basin may also review and adapt other models for Climate Action plans in alpine settings, such as The Canary Initiative in Aspen, CO.</p>	<p>Local jurisdictions, Strategic Growth Council, California Air Resources Board</p>

TOURISM AND VISITOR SERVICES CLUSTER

This cluster identified four strategic initiatives, several of which are linked closely with region-wide issues discussed earlier in this chapter, as well as with the Health and Wellness Cluster.

1. **Enhance the Visitor Experience.** Focus on and connect geotourism, recreation, sports, health and wellness, Eco-tourism, educational experiences, volunteer opportunities, food/culinary tourism, arts and culture and other events that align with all these.
2. **Market the Destination.** Rebrand the region as a green, geotourism and recreation center, with gaming and entertainment as an amenity. Develop a collaborative marketing portal to reach domestic and international visitors.
3. **Promote Environmental Redevelopment and Infrastructure.** Pursue and support community improvements, regulatory process, transportation, broadband infrastructure and access
4. **Support Business Attraction and Development.** Promote environmental innovations, address business to business leakages and financing gaps

CLUSTER INITIATIVE 1: ENHANCE THE VISITOR EXPERIENCE

The central thrust of this initiative is to create a vision plan for a “world class” destination and to ensure that visitor experiences are “authentic” to Lake Tahoe, connect to the geographic setting and are environmentally sustainable in every way – “high touch and low impact.” The cluster should be host to the “Tahoe Experience,” which may include geotourism, recreation, sports (training camps and facilities, youth and masters sports and tournaments), health and wellness, eco-tourism, educational experiences, volunteer opportunities (“voluntourism”), food/culinary tourism, and diverse arts and culture venues and events. The formation of a Sports Commission to market the Basin and help develop enhanced facilities and infrastructure improvements is addressed as a Basin-wide issue.

A variety of specific ideas for enhancing the visitor experience and marketing were expressed in the cluster workgroup meetings. Ideas such as outings featuring heritage wildlife; volunteer projects to enhance sensitive ecosystems; coordinating and promoting Tahoe as the “summer music center;” creating local food, wine and art-related events; programs on Native American culture and history; dance and sports events; and festival and geotouristic activities can all be explored in terms of bolstering the visitor experience.

In keeping with the theme of environmental sustainability and authenticity, the Tahoe Basin should be positioned as an international center of excellence in sustainability practice, in green building design and architecture for resorts, lodging and Tourism and Visitor Services facilities, and infrastructure; environmental restoration; and innovation linked to green tourism business practices. The cluster also recognizes that it is important to improve customer service and the accessibility of information. Efforts should focus on improvements that expand the visitors’ perception of value.

This initiative includes three components: creating and connecting assets, improving information dissemination (as distinct from marketing, which is in the next cluster initiative) and improving operations. The following chart lists Cluster Action items and potential collaborative partners for implementation by the Cluster Work Groups. **These partners are illustrative and more partners should be recruited as implementation proceeds.** The lightly shaded areas are high priority actions; however, these action plans will be refined once the Cluster Work Groups actually launch.

ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS	COLLABORATIVE ORGANIZATIONS
1 Visitor-Oriented Assets	Cluster Work Group
1.1 Expand options. Create more participatory activities that engage visitors in the unique environment in the Basin, including on and around the Lake itself, forest-based recreation, and historical and cultural assets and amenities. Systematically identify assets and “gems” and develop, promote and sustain them. Support development of performing arts venues and facilities. Ensure that facilities and businesses are ADA compliant.	All partners
1.2 Continue improving the geotourism asset map – define what is genuine. Identify what recreational facilities need improvement.	Chambers of Commerce, Sierra Business Council, Sustainable Tahoe
1.3 Create itineraries with menus of activities; create a web tool for itinerary planning for visitors	CVBs, Visitors Centers, Sustainable Tahoe
1.4 Bring local produce/products into restaurants and stores. (Build the local food system.)	LTCC Culinary program, Chambers, businesses, Compost Tahoe, SLT Sustainability Com.
1.5 Support the development of more green hotels and properties and destination facilities linked with health and wellness (Coordinate with the Health and Wellness Cluster). Ensure that facilities are ADA compliant.	TRPA, jurisdictions, Embassy Suites, 968 Park Spa Resort, lodging associations, hospitals, SIGBA, Visitor Authorities, Chambers, Cedar House
1.6 Develop the Basin as a learning and visitor center for innovations in green building, alpine research on climate change and the ecology of the Lake, and sustainable living. Coordinate with the Green Business and Environmental Innovation Cluster. (See Cluster Initiative 2.4). Show leaders examples of innovations in other regions.	Tahoe Science Consortium, TERC, Sierra Nevada College, UCD, UNR, DRI, SIGBA, businesses, Visitor Authorities, TRPA, Chambers
1.7 Improve mobility options and connections, including water ferry, electric cars, cycling, and pedestrian. Address reliability of service, structures/shelters (see Initiative 3.8)	Public and private transportation operators, TRPA, City of SLT, Caltrans, NDOT, Tahoe Transportation District, non-profits, Green Cluster, jurisdictions, Blue Go, STATA, ski resorts

2 Information Development and Dissemination	Cluster Work Group
2.1 Assess existing marketing and informational pieces for effectiveness; ensure they are presented in the greenest way possible. Tie to marketing strategies.	Nat. Geographic, TRPA, Sierra Business Council (SBC), Forest Service, Visitor Authorities
2.2 Create centralized point of information – website, print? Create matrix of destinations for: - Recreation, sports, Geo-tourism, arts and culture - Health and wellness – i.e., Yoga Institute, fitness, training, healthy lifestyles - Transportation - to get around the Basin and get access to assets conveniently - Itineraries	Everyone – CVB, Chambers, City, TRPA, Nat. Geographic, TRPA, SBC, Forest Service, Native American groups, museums, hospitals, health and wellness community, transportation entities, Sustainable Tahoe
2.3 Develop a consistent, Basin-wide guest survey. Build on efforts by the Edgewood Co., LTVA, and ski resorts to establish a baseline and measure trends. Prepare a performance scorecard. Important to monitor if Basin is meeting visitor expectations. Particularly differentiate 1st time vs. returnees: what do they want? What have we missed? Funding will need to be raised.	Visitor Authorities, Chambers, education (Sierra Nevada College, LTCC), Business Assns., jurisdictions, Prosperity Center
3 Organizational Development/Operational Approach	Cluster Work Group
3.1 Provide education to businesses on signage, service, food, etc. Need Basin wide consistency in services. Prepare a checklist of services on “how to be a better tourism/Tourism and Visitor Services business.” Develop a business association inventory of preferred business, and a regional set of profiles, building on existing award programs.	Visitor authorities, Chambers, education (Sierra Nevada College, LTCC), Business Assns.
3.2 Deliver front-line staff customer service training. This should include knowledge of the Basin assets and ways to connect them and deliver value-added experience, to make people want to return, stay longer, or move to Tahoe.	Chambers of Commerce, Visitor Authorities, Education partners
3.3 Convene entities to collaborate on funding strategies. Hire a grant writer to help secure funding.	Chambers, Visitor Authorities
3.4 Use website to create service exchange within the cluster.	Chambers, Visitor Authorities
3.5 Explore creation of local financial institutions such as a credit union to retain local money in the Basin here.	Funding and Resource institutions
3.6 Promote green practices to visitors, such as recycling, via information kiosks, websites, Public Service Announcements	Ski resorts, Green Business Coop, Chambers, Visitor Authorities, businesses

CLUSTER INITIATIVE 2: TAHOE BASIN MARKETING AND REBRANDING

This initiative resides with the Tourism and Visitor Services Cluster because this group possesses the expertise and infrastructure to mount the rebranding campaign. However, the action plan

contemplates significant collaboration and synergy among all the clusters. The environmental innovation cluster provides much of the substantive assets to be marketed, along with the recreation and culturally oriented experiences developed within the Tourism and Visitor Services Cluster.

In addition, the Health and Wellness cluster anticipates significant collaboration in terms of both marketing Tahoe as a wellness destination and also developing assets in terms of sports activities, wellness retreats and fitness centers. It will be important to target this marketing to international as well as domestic visitors as they seek these types of visitor experiences.

ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS TAHOE BASIN MARKETING AND BRANDING	COLLABORATIVE ORGANIZATIONS CLUSTER WORK GROUP
1. Develop Tahoe Marketing Cooperative through existing entities to market lake-wide messages including all Prosperity Plan clusters.	Existing marketing organizations
2. Partner with and promote the Sierra Nevada Geotourism project (see Initiative 3.5).	Chambers, Visitor Authorities, Sierra Business Council, Sustainable Tahoe
3. Create a mechanism to reach second homeowners who are not currently “invested” in the prosperity of the Basin. Identify the kinds of services and opportunities that 2 nd home owners are looking for. Determine the best way to communicate and connect for a variety of purposes.	Hospitals, jurisdictions, media, real estate agents
4. Use stories about Tahoe green innovations for promotion – to become known as a center for innovation for environmental, sustainable tourism. Create awareness about new technologies such as ozone laundering systems at lodging properties. Focus on Basin-wide carbon footprint, creating local benefit, appeal to tourists. Lodging properties could have a card that signifies they belong to the Tahoe low carbon footprint brand and to the Prosperity Plan. Travelers might not be looking for a “green” property but if the price of the next choice is close it becomes a differentiator. Focus on “greening up” the properties – will save money and attract visitors. Sponsor Focused events – e.g. coastal clean-up days.	Hotels, Tahoe Science Consortium, Tahoe Environmental Research Center, SIGBA, schools, TRPA, Visitor Authorities, Chambers, Sustainable Tahoe
5. Market the “total” Tahoe experience – North/South shore. Educate businesses on food-related opportunities, performances, music, etc. Work with culinary institutions. Showcase a celebration variety/history of Tahoe communities	Chambers, Visitor Authorities, Restaurants, lodging associations, ski resorts, marketing co-op, arts, cultural and heritage organizations
6. Develop and/or promote events, including food-related, sports (ex. Amgen), culture, and health and wellness. Link to broader regional events; market other seasons for exploring (spring and fall) – waterfalls, photography, snowshoeing, etc. Create a destination for photographers with sponsored workshops. Coordinate and promote volunteerism opportunities.	Visitor Authorities, Chambers, non-profits, Conservancies, Education Cluster Work Group, Event Producers

ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS TAHOE BASIN MARKETING AND BRANDING	COLLABORATIVE ORGANIZATIONS CLUSTER WORK GROUP
7. Leverage resources/training at STHS Digital Media Arts program, LTCC, Sierra NV College, Sierra College for the arts (scenic and adventure media)	Schools, Visitor Authorities
8. Coordinate with the lodging industry and marketing associations to create the “Tahoe Brand” and develop joint marketing strategies, providing information about lodging options, amenities and events for health and wellness visitors (see Tourism and Tourism and Visitor Services cluster recommendations). This synergy can help the lodging industry be more year round. Coordinate around transportation access to locations and amenities around the Basin. Create a point of contact for outside entities to approach the Basin.	Hospitals/Lodging. Look at who has the opportunities to “market” – Visitor Authorities, jurisdictions, local economic development
9. Market medical specialties and centers of excellence (see Initiative 2) and continuum of care as part of the regional tourism marketing strategy, along with the full range of other health, fitness and wellness providers. Provide an inventory of providers and resources for visitors and residents. Develop a regional strategy to reach out to second home owners.	Visitor Authorities, Hospitals, Lodging
10. Develop and market spa and resort facilities for today’s market seeking integrated facilities, and to attract returning customers for health and wellbeing. (See the other clusters’ recommendations for environmental redevelopment).	Health and Wellness Cluster Work Group, Visitor Services Cluster Work Group, Visitor Authorities, jurisdictions, TRPA
11. Market proactively to attract annual meetings of health-related associations – e.g., the California Orthopedic Association. Coordinate with Environmental Innovation cluster to attract conferences, workshops and symposia.	Hospitals/Lodging, Visitor Authorities
12. Coordinate across the Tourism and Visitor Services Cluster on providing way-finding signage to support awareness of health and wellness opportunities.	Hospitals/Lodging

CLUSTER INITIATIVE 3: PROMOTE ENVIRONMENTAL REDEVELOPMENT AND INFRASTRUCTURE

This initiative addresses several key regional issues discussed at the beginning of this chapter, including improvements to the regulatory process, the transportation system, broadband infrastructure and access, and community amenities and livability. The cluster also recommended development of an infrastructure bank to help access federal funds and provide focal point for use of redevelopment, state, private investment, and other funds. This concept is discussed above under Phase 2 Regional Partners Engagement.

This cluster is particularly concerned with addressing the conditions related to lodging infrastructure deterioration, aging commercial areas and blight. In order to be able to make the necessary

investments, it is critical to make the regulatory process more predictable and consistent to promote redevelopment and reinvestment.

In terms of transportation, there is a strong interest in reducing dependence on cars and improving mobility and access through transportation options, better connectivity, adoption of new technologies, and better information about access to assets and activities. Local jurisdictions, transportation entities and TRPA need to pursue and promote innovations in the region’s transportation systems and connectivity.

ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS	COLLABORATIVE ORGANIZATIONS
1. Improve blighted conditions and address deteriorated commercial properties. Create a system where transfer of commodities between jurisdictions is more easily attainable, i.e. TAU’s (Tourist Accommodation Units), CFA, SEZ Credits, Scenic credits. Address TAUs for small boutique lodging – there are no solutions for small properties. Develop an entitlement process with incentives to draw into investments, for conversion to food, health, wellness focus.	Private sector, local jurisdictions, TRPA, SIGBA
2. Improve predictability in decision making and permitting process to give investors a better idea of chances for permit in timely manner.	Local jurisdictions, TRPA, state and federal agencies
3. Use new environmental technologies for remediation. Utilize Cal Green 2011 to help streamline adoption process. Identify green building product suppliers and educate property owners on benefits, grants, rebates, marketing. (See Cluster Initiative 4.1)	Local jurisdictions, TRPA, SIGBA, Sierra Nevada College
4. Enforcement of appearance standards is needed to effect change if incentives don’t work.	Counties, City, TRPA
5. Improve communications between green builders, suppliers and other environmental service providers, using a high speed, technologically advanced communication system. Consolidate and create a portal for all environmental groups and brand it.	SIGBA, utilities, Private/Government, Green Business Co-ops, Chambers
6. Work on strategies to increase trust in community around concept of redevelopment. Need a unified sense of purpose and vision as community – maybe not specifically how it looks, but how it feels. Develop community educational programs for locals on benefits of tourism, better transportation alternatives	Jurisdictions, non-profits, Visitor Authorities, Chambers, ski resorts, TRPA
7. Elevate the importance of transportation hubs and infrastructure; promote innovative transportation alternatives and adoption, such as ferries, completed bike path, rail link from Capital Corridor to key hubs in Basin. Identify opportunities to remove traffic from Hwy 50.	Local jurisdictions, TRPA, institutional partners, Green Business Cluster, public and private transportation providers

ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS	COLLABORATIVE ORGANIZATIONS
8. Improve access to broadband and technology. Explore creation of a Basin broadband strategy and consortium.	SEDCorp., WNDD, hospitals, schools, Ca. Emerging Technology Fund, jurisdictions, utilities
9. Find innovative means to design and finance improvements to water systems, roads, sewer, sidewalks, BMPs/drainage, and lighting	Counties, City, TRPA, institutional partners, Green Business Cluster

CLUSTER INITIATIVE 4: BUSINESS ATTRACTION AND DEVELOPMENT

The cluster analysis in Chapter 3 identifies substantial business-to-business sales leakages, which suggests business opportunities may exist to develop additional support services and suppliers. This is an issue that affects all the clusters and should be addressed on a regional basis. In addition to utilizing entrepreneurship programs and business development resources, this initiative would benefit from a region wide capital access strategy.

ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS	COLLABORATIVE ORGANIZATIONS
1. Reduce leakage. Conduct a retail, business services and suppliers gap and market analysis to identify specific opportunities for new business start-ups and expansion. Identify specialty niche markets such as organic foods and specialized sports gear. Incorporate findings into city and county economic development strategies and follow up.	Local jurisdictions, Chambers of Commerce, SBDCs, SEDCorp.
2. Identify location and expansion needs of businesses including fitness facilities, retail establishments, health and wellness practitioners, etc. and ensure that adequate facilities and financing are available. Coordinate small business development resources with partners	Local jurisdictions, the City of South Lake Tahoe Redevelopment Agency, SBDCs, Chambers and SEDCorp.
3. Identify examples of environmental innovations like solar lighting systems that can offer new business opportunities. Different counties have different incentives and there is lack of awareness about innovation and investment opportunities. Market them to Basin businesses.	Economic development partners, Sierra Business Council, utilities, Green Business Co-ops
4. Link with the health and wellness cluster and explore ways to facilitate growth in this segment of the economy. Coordinate on getting health and wellness activities into great buildings early on in the marketing process.	Clusters
5. Prioritize creation of living wage jobs.	Local jurisdictions
6. Create an effective Basin-wide Workforce Housing Strategy as recommended on p. viii of Lake Tahoe Sustainability Measures Executive Summary	Local jurisdictions, public and private developers, employers

ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS	COLLABORATIVE ORGANIZATIONS
<p>7. Create a business attraction and development strategy to address business to business leakages as identified from within the three clusters. Like attracts like (i.e. thriving business attracts thriving business). Also, as schools improve, business and residential life improves. Focus on location neutral businesses.</p>	<p>Economic development partners, jurisdictions, chambers</p>

HEALTH AND WELLNESS (H&W) CLUSTER

Health and Wellness has a vitally important role for the prosperity of the Tahoe Basin, for its local and regional economic impact and for the services it provides for the health and quality of life for residents and visitors. The cluster is an important economic driver. The health systems are large employers with major human, intellectual, institutional and community assets. For example, Barton Health provides 50 percent of South Lake Tahoe’s living wage jobs in a community with a 17.8 percent unemployment rate (50 percent of the unemployment in El Dorado County).

With these resources and impacts, the cluster has a significant competitive advantage in terms of the potential to organize itself strategically so that the barriers to prosperity may be addressed, but this alignment must occur within the cluster, with the other clusters and with the regional partners. Many of the cluster’s challenges are locally specific in place but require regional solutions.

The vision of the cluster is to attract patients who come to Tahoe for care or come back because of the quality of care and the environment, or come because it’s a wellness destination. The intent of the strategic initiatives is to identify a few keys areas in which to brand and distinguish the H&W cluster and choose ones with the highest potential (i.e., medical specialties such as orthopedics and oncology, fitness, wellness, sports medicine, nutrition, and complementary medicine).

There are many vectors that approach synergy in the resources from the other Clusters that could service this Cluster - recreation, lodging, a greener and more sustainable environment, green buildings – that will lead to better health and visitor experiences. Physical improvements are needed to revitalize the Basin and to develop centers of wellness that engender more sustained visits.

Two of the key strategic initiatives identified by this cluster are: 1) to market/rebrand the Basin as a wellness destination and 2) generate capital sources for business expansion opportunities. These initiatives are important at a regional level for all the clusters and are elevated in the previous discussions of regional issues, as well as included in Cluster Initiative 2 for the Tourism and Visitor Services Cluster.

The remaining proposed cluster-specific strategic initiatives are to:

- Promote medical specialties such as orthopedics, oncology
- Be a center for world class athletic and fitness care and training
- Deliver specialized skills training/education for health and wellness careers
- Promote telemedicine and e-Health

The following chart lists Cluster Action items and potential collaborative partners.

CLUSTER STRATEGIC INITIATIVE 1. DEVELOP/PROMOTE MEDICAL SPECIALTIES SUCH AS ORTHOPEDICS, ONCOLOGY, HEALTHY LIFESTYLES, EDUCATION, AND INJURY PREVENTION.

“Get Well – Be Well.” Tahoe Forest Health District’s new cancer center addresses an important community gap and could be developed into a destination treatment center. It may need to focus on medical and radiation oncology, with surgical oncology more driven by specialized centers outside of the Basin. Barton Health has a new Tahoe Center for Orthopedics. It may be more difficult for family and caregivers of oncology patients to stay long periods but it would be attractive for elective and other treatments such as orthopedics and cosmetic surgery. There are institutional barriers on issues like licensing to coordinate Nevada and California medical resources.

ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS	COLLABORATIVE ORGANIZATIONS
1. Identify medical and health and wellness specialties and coordinate with the Marketing Strategy (Initiative #1). Focus on elective health services. The public sector should support the development of centers of excellence. Focus the message on a select group of specialties.	Health care entities
2. Sports medicine is too narrowly focused on sports and should look at adjunct medicine components such as injury prevention; market services to second home owners as well as visitors and residents.	Health care entities and partners, Tourism and Visitor Services cluster
3. Prepare a directory of community partners and resources for traditional and complementary care and facilities.	H&W cluster
4. Address institutional issues and regulatory issues to promote ease of consultation and interaction across borders for natural affiliations of medical specialties. Develop a strategy for regulatory and policy relief at the federal and state levels.	H&W cluster, state and federal agencies, UNR
5. Bring Nevada and California resources to the Basin such as UNR Medical School and California Telehealth Network (CTN)	H&W cluster, UNR, UCD, CTN

CLUSTER STRATEGIC INITIATIVE 2. BE A CENTER FOR WORLD CLASS ATHLETICS AND FITNESS

The Basin can be a more organized and recognized destination for high performance, high altitude training for world class sports, as well as overall fitness and training, rehabilitation and injury prevention. The Basin should leverage its Olympic heritage and pursue a Sports Commission to attract youth and masters events as well as elite sporting events such as AMGEN (committed for May 2011) and the World Cup. Appendix D provides examples of projects that exemplify a holistic approach to athletics, fitness and wellness and are an economic driver for their regions. They include:

- The U.S. Olympic Complex, Colorado Springs – the headquarters for the U.S. Olympic Committee administration and training center programs for Olympic and Paralympic athletes. In addition to training facilities, the Complex includes a sports medicine and sport science center and the Olympic Hall of Fame for visitors. In part due to the Complex, Colorado Springs has become an athletics destination; the industry has grown to the point where the University of Colorado offers a business degree in sports management.
- The U.S. Ski and Snowboard Association (USSA) Center of Excellence, Park City, Utah – a new training and education facility for American skiers and snowboarders, for elite-level athletes including Olympians, and youth programs, also serving as a center for high-tech physiological research and analysis, physical therapy rehab and recovery, performance analysis and nutrition.
- Lake Placid Olympic Facilities – provides training facilities, sports medicine and a sports science-testing lab for winter and support Olympic sports and affiliated sports organizations and disabled sports organizations.
- 2011 US/North America World Cup Venues – for snowboard, USSA Center of Excellence, Quebec City, Canada Olympic Park, Calgary; for skiing – Canada Olympic Park, Calgary, Lake Placid, Mont Gabriel Canada, Aspen and Avon, Colorado. Aspen has seen more than \$130 million in on-mountain improvements in the last six years, including two 22-foot Olympic size Superpipes for Olympian training.

The Reno Tahoe Winter Games Coalition, a non-profit formed in 2001 to pursue the return of the Olympic to the Tahoe region, is working to form a non-profit Lake Tahoe Regional Sports Commission which would organize national and world-level competitions in California and Nevada, to build a track record and raise the region’s profile and capacity.

ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS	COLLABORATIVE ORGANIZATIONS
1. Create a regional sports commission to brand and market the region as a destination for many types of events. Develop and implement a strategy to attract world class events like the Amgen Tour. Coordinate with the Reno Tahoe Winter Games Coalition.	Visitor Authorities, local jurisdictions, H&W cluster
2. Assess existing facilities and assets needed to be a destination center for high altitude and specialized sports and conditioning training and for healthy lifestyles. Pursue and support opportunities for redevelopment of existing facilities to higher standards and access to financing for development and acquisition of facilities.	H&W cluster, Capital Work Group, jurisdictions, TRPA
3. Coordinate with marketing organizations to identify and market to attract new kinds of events, conferences, tournaments and training. Market to elite athletes. Provide a directory of trainers, athletic facilities and strength, conditioning, injury prevention and injury rehabilitation resources. Provide quality lodging and other amenities and facilities for these sorts of athletic groups.	Tourism and Visitor Services and H&W clusters, jurisdictions, schools

ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS	COLLABORATIVE ORGANIZATIONS
4. Identify and encourage new types of athletic activities such as cross-fit exhibitions.	H&W and Tourism and Visitor Services clusters

CLUSTER STRATEGIC INITIATIVE 3. DELIVER SPECIALIZED SKILLS TRAINING/EDUCATION FOR HEALTH AND WELLNESS CAREERS

The Basin can be a location for specialized training and education based on competitive assets and the natural beauty, developing a collaborative model of regional education and training partners. Programs should be marketed nationally.

ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS	COLLABORATIVE ORGANIZATIONS
1. Expand training of front-line hospitality staff on the Basin’s health and wellness services.	Health care entities, Visitor Authorities, Chambers, education
2. Aggregate the assets of educational and training partners in the Basin and nearby regions including Carson Valley, Reno and Sacramento for health and wellness career pathways and specialized skills development, education and certification in niche specialties such as EMTs, the Fire Academy, health information technology for e-health and telemedicine, and continuing education.	Higher education partners and H&W Cluster
3. Promote school to career pathways in sports medicine from Lake Tahoe High School to Lake Tahoe Community College.	LTCC and School Districts
4. Hospitals, health and wellness providers, the colleges and resorts should collaborate to provide education about behavioral health in general.	Educational partners, H&W and Tourism and Visitor Services clusters

CLUSTER STRATEGIC INITIATIVE 4. PROMOTE TELEMEDICINE AND E-HEALTH

Broadband (high speed Internet and other telecommunications capacity) is an essential backbone for delivery of health services and the future of medicine in areas such as home-health services, as well as for public safety, emergency services, distance learning, and e-commerce. This is a fundamental need across the clusters. There are significant gaps in broadband infrastructure (wireline and wireless) around the Basin, and lack of connectedness and system operability between hospital systems in California and Nevada, and both shores. Barton Health is working on connectivity for home health services delivery and monitoring. Improved capacity will allow for increased out of out-of-Basin medical consultations and improved coordination throughout the Basin. Remote access is critical.

ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS	COLLABORATIVE ORGANIZATIONS
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ACTION ITEMS AND PRIORITY SEQUENCE FOR ACTION STEPS	COLLABORATIVE ORGANIZATIONS
<p>1. Identify and map gaps in broadband infrastructure and access. Build off existing backbone of major institutions such as hospitals and educational institutions. Identify priority gaps to be addressed. Coordinate with SEDCorp which is working on a broadband deployment strategy and working with small providers, and with CSU Chico which is updating maps for the CPUC. Develop a strategy for gaps in Nevada areas.</p>	<p>H&W cluster, CSU Chico, SEDCorp, WNDD, CETC, local jurisdictions, telecoms</p>
<p>2. Track credentialing in telemedicine for specialties; may be able to relate to orthopedics.</p>	<p>Health care entities, education institutions, California Center for e-Health and Telemedicine</p>
<p>3. Consider forming a regional broadband consortium to develop a Basin-wide strategy across clusters and be ready for potential CPUC funding. Coordinate with Sacramento region (Valley Vision) on its regional broadband strategy and linkages with MedStart for e-Health and telemedicine, and with SEDCorp CPUC California Advanced Services Fund is a potential funding source.</p>	<p>Local jurisdictions</p>
<p>4. Develop a workforce program in health information technologies.</p>	<p>Higher education institutions, H&W cluster, California Telehealth Network</p>

APPENDIX A: ECONOMIC DATA ANALYSIS

METHODOLOGY

1. EMPLOYMENT BY INDUSTRY

In order to track recent change in the economic structure of the Lake Tahoe Basin, the Center for Economic Development (CED) at California State University, Chico developed a method to estimate employment and sales by industry at a sub-county level in a geographical area that transcends two states.

1.1 GEOGRAPHICAL STUDY AREA

Per the requirements of the project's federally funded scope of work, as a geographical area of study, CED utilized the drainage basin for Lake Tahoe, plus the area downstream along the Truckee River including Squaw Valley. The area includes those portions of two California counties and three Nevada counties that are in this watershed.

1.3 STUDY TIME PERIOD

For purposes of this analysis, CED used the 2000-2007 time period to measure the most recent change in the region's long-term economic structure. This time period held two advantages.

Advantage 1: The period includes the most recent reliable employment data by industry available at a sub-county scale.

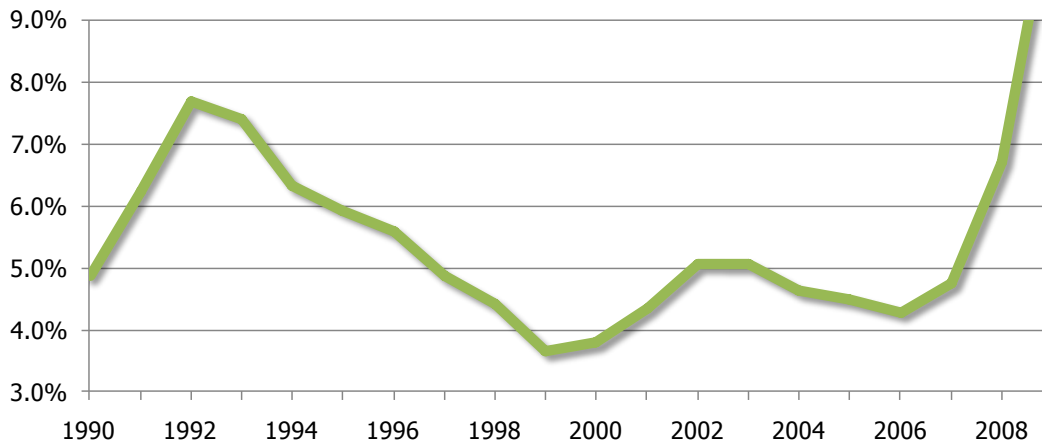
Advantage 2: This time period allows for analysis of economic patterns and performance at two similar points in the business cycle. Inclusion of more recent data (which was not available at the time of the analysis) reflecting the magnitude of the economic downturn that began in late 2007 would have made it difficult to discern business cycle patterns that indicate structural changes in the region's economy.

The business cycle and performance of the Basin economy are evaluated using the unemployment rate estimated by the states' (California and Nevada) employment departments and reported to the



U.S. Department of Labor, using data for the larger six-county region.³ The most recent data for 2007 represented the first uptick in the unemployment rate at the dawn of the 2007-2009 recession. The last comparable year, which is the first uptick in unemployment during the last recession, was 2000. This is why the 2000-2007 period was used to represent the most recent long-term trend in the Lake Tahoe Basin's employment structure. (See Figure A1.)

**FIGURE A1
SIX-COUNTY REGION UNEMPLOYMENT RATE**



Source: CSU Chico, ADE, Inc.

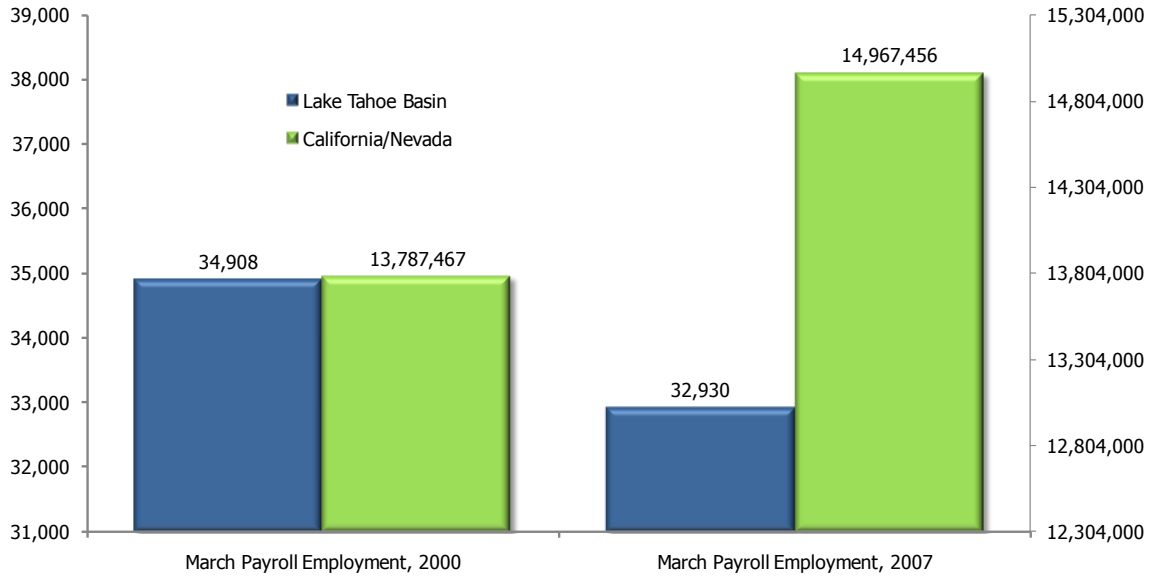
Overall, during this period, payroll employment in the Lake Tahoe Basin has decreased by 5.7 percent, while employment for California and Nevada, combined, has increased by 8.6 percent (see Figure A2). This illustrates the systemic underperformance of the Basin economy.

While there has been much discussion about how the 2007-2009 recession⁴ will change how the economy is driven, with new foci in green technology, clean energy and energy efficiency, it will be important to continue the process of analysis through adding the most recently available data, to document the overall impact of the recession and to see what patterns are emerging during the economic recovery and how the economy may be transforming.

³The six counties were El Dorado, Placer, and Nevada counties in California and Carson City (independent city), Douglas, and Washoe counties in Nevada. These counties cover an area from the eastern fringes of the Sacramento metropolitan area to the west, through Reno and Carson City to the east. Sub-county employment estimates were not used for this specific analysis because they are based on year 2000 benchmarks. Countywide data was more appropriate for this analysis.

⁴CED's consulting economist Dr. Robert Eyler, professor of Business and Economics at California State University, Sonoma, references the National Bureau of Economic Research which announced the "technical" end of the recession in late 2009, although the U.S. has yet to show signs of robust job recovery.

**FIGURE A2
LAKE TAHOE BASIN PROSPERITY PLAN BUSINESS CLUSTERS, PAYROLL JOB GROWTH 2000-2007**



Source: CSU Chico, ADE, Inc.

1.4 DATA SOURCES

The key data source for Lake Tahoe Basin payroll jobs was the U.S. Department of Commerce, Bureau of the Census Zip Code Business Patterns (ZCBP). This data is available on a periodic basis and the Basin data should be calculated and updated as frequently as possible to assess overall performance of the economy and patterns within the economic clusters.

1.5 METHODOLOGY FOR CALCULATING PAYROLL JOBS

Direct payroll employment tabulations are not provided in the Zip Code Business Patterns, or on any other official source of business data. Commercial business databases provide estimates of sales and jobs, although estimating methods and even definitions (what is included and what is not) vary between sources.⁵

Instead, the Census Bureau publishes the number of establishments by employment-size class. For example, the following table (Table A1) is the 2007 Zip Code Business Pattern output for zip code 98402 (Crystal Bay, Nevada).

⁵ For example, the Dun & Bradstreet business database, which may be the most commonly-used commercial business list provider, claims to only count “full-time” jobs in its data, although no definition of “full-time” is provided in its technical documentation.

**TABLE A1
2007 COUNTY BUSINESS PATTERN DATA FOR ZIP CODE 89402 (CRYSTAL BAY, NV)**

NAICS Code	NAICS Industry Code Description	Total Estab.	Number of Establishments by Employment-size class								
			1-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999	1000+
Total		27	14	7	0	3	0	3	0	0	0
236115	New single-family general contractors	3	1	1	0	1	0	0	0	0	0
323115	Digital printing	1	0	1	0	0	0	0	0	0	0
423410	Photo equip & supp merchant wholesalers	1	1	0	0	0	0	0	0	0	0
531390	Other activities related to real estate	1	1	0	0	0	0	0	0	0	0
541211	Offices of certified public accountants	1	0	1	0	0	0	0	0	0	0
541310	Architectural services	1	1	0	0	0	0	0	0	0	0
541611	Admin management & general management consulting services	2	1	1	0	0	0	0	0	0	0
541614	Process, physical distribution, & logistics	1	1	0	0	0	0	0	0	0	0
541990	All other professional, scientific, & technical services	1	1	0	0	0	0	0	0	0	0
561110	Office administrative services	3	2	0	0	0	0	1	0	0	0
561422	Telemarketing bureaus	1	0	1	0	0	0	0	0	0	0
562991	Septic tank & related services	1	1	0	0	0	0	0	0	0	0
713210	Casinos (except casino hotels)	3	0	0	0	2	0	1	0	0	0
713290	Other gambling industries	2	2	0	0	0	0	0	0	0	0
721110	Hotels (except casino hotels) & motels	1	1	0	0	0	0	0	0	0	0
721120	Casino hotels	1	0	0	0	0	0	1	0	0	0
722211	Limited-service restaurants	1	1	0	0	0	0	0	0	0	0
722320	Caterers	1	0	1	0	0	0	0	0	0	0
813990	Other similar organizations	1	0	1	0	0	0	0	0	0	0

Totals for ZIP Code 89402

Number of establishments: 27

Paid employees for pay period including March 12 (number): 702

First-quarter payroll in \$1,000: 4,543

Annual payroll in \$1,000: 18,397

Source: U.S. Department of Commerce, Bureau of the Census, Zip Code Business Patterns

As can be seen, businesses are grouped under a range of employment sizes, rather than employment grouped by industry. However, the ZCBP does provide the total number of jobs (702). CED utilized the job total as the basis for converting establishments by employment size to an estimate of jobs by industry (see Table A2).

**TABLE A2
CED ESTIMATED EMPLOYMENT BY INDUSTRY FOR ZIP CODE 89402**

NAICS Code	NAICS Industry Code Description	Total Estab.	Low Empl.	High Empl.	CED Est. Emp
	Total	27	409	1,013	702.0
236115	New single-family general contractors	3	26	62	43.5
323115	Digital printing	1	5	9	6.9
423410	Photo equip & supp merchant wholesalers	1	1	4	2.5
531390	Other activities related to real estate	1	1	4	2.5
541211	Offices of certified public accountants	1	5	9	6.9
541310	Architectural services	1	1	4	2.5
541611	Admin management & general management consulting services	2	6	13	9.4
541614	Process, physical distribution, & logistics	1	1	4	2.5
541990	All other professional, scientific, & technical services	1	1	4	2.5
561110	Office administrative services	3	102	257	177.2
561422	Telemarketing bureaus	1	5	9	6.9
562991	Septic tank & related services	1	1	4	2.5
713210	Casinos (except casino hotels)	3	140	347	240.4
713290	Other gambling industries	2	2	8	4.9
721110	Hotels (except casino hotels) & motels	1	1	4	2.5
721120	Casino hotels	1	100	249	172.3
722211	Limited-service restaurants	1	1	4	2.5
722320	Caterers	1	5	9	6.9
813990	Other similar organizations	1	5	9	6.9

Source: Center for Economic Development at CSU, Chico

In the table above, low employment is the lowest possible employment total that can result in the existing counts of establishments by establishment-size class. For example, using “New single-family general contractors” (NAICS 236115), there is one establishment with 1-4 employees, one with 5-9 employees, and one with 20-49 employees. The lowest possible total employment given this combination is 1+5+20=26. Likewise, high employment is the highest possible employment total possible in each industry. For NAICS 236115, it is 4+9+49=62. The low and high possible employment for each industry was thus calculated and a sum for each in zip code 89402 was added (409 and 1,013, respectively). We know the actual total employment was 702, which was given in the ZCBP table. A ratio between the true value and the possible range can be calculated as follows:

$$(1,013-409) / (702-409) = 48.58 \text{ percent}$$

Therefore, 702 is 48.58 percent of the difference between the low possible value (409) and the high possible value (1,013). This percentage was used to calculate an estimated employment in each industry based on the high and low possible values. In each industry, the CED estimated jobs count was 48.58 percent of the difference between these high and low values. Continuing to use NAICS 236115 as an example:

$$((62-26) * 48.58 \text{ percent}) + 26 = 43.5 \text{ estimated jobs.}$$

CED acknowledges that there is no such thing as a “half” of a job – the possible values are integers. Rather, this is an estimate based on known zip code employment and establishments by employee-size class. Thus, when independent industry estimates for all 22 zip codes found in the Lake Tahoe Basin are combined into one basin-wide dataset, the basin-wide number was rounded to the nearest

integer. The probability law of large numbers⁶ suggests that the estimate for the entire basin for each industry should be reasonably close to reality. At present, this is the best representation possible given constraints of data availability.

2. SPENDING LEAKAGE BY INDUSTRY

Spending leakage is dollars spent outside of the community, whether by households, businesses, workers, and institutions. Examples include traveling over the hill to Carson City on a major shopping trip to a grocery store or the mall. Examples of business spending range from payments to a non-local utility for electricity to buying store shelving from a supplier in Reno. As can be seen from the example, some leakage can be expected because the product could not realistically be produced or be provided in the Basin, while some leakage can be captured with a focused economic development policy encouraging efforts to reduce it through business expansions and start-ups, buy local strategies, and so forth.

2.1 GENERAL APPROACH

CED estimated spending leakage for each industry selling products and services to Lake Tahoe Basin businesses and organizations. An economic model developed by Minnesota IMPLAN Group, Inc., called IMPLAN, was used to make this estimate. IMPLAN includes a national industry-to-industry spending model.

CED used IMPLAN's national industry-to-industry spending model to build a spending model for businesses in the Lake Tahoe Basin. Where businesses located in the basin generally purchase products not produced in the Basin, or where not enough products are produced in the basin to meet demand (such as electricity), the difference was assumed to be spending leakage outside of the Basin. Therefore, the gap between each industry's products and services demanded and supplied in the basin is assumed to be spending leakage.

It should be noted that there are other reasons local gaps between demand and supply of an industry's products may exist. These include local businesses using substitutes (for example, instead of buying shelving, placing products on a floor or using local lumber to build their own shelves, etc.), and businesses using unique practices (i.e., building or store design requiring less electricity, reducing demand for that product). Therefore, leakage to each industry must be thought-out and analyzed carefully to determine if the gap is, indeed, leakage, along with whether that leakage can be captured.

2.2 METHODOLOGY

In order to estimate leakage, CED used IMPLAN software to build an industry-to-industry transaction model for the Lake Tahoe Basin using industry payroll employment data for the Basin described in the previous section "Employment by Industry" and U.S. industry-to-industry

⁶ According to the law of large numbers, the average of the results obtained from a large number of trials should be close to the true value, and will tend to become closer as more trials are added. For a more detailed scientific explanation, see <http://stat-www.berkeley.edu/~stark/Java/Html/lln.htm> at the University of California, Berkeley.

transactions provided by the software. For each industry, CED calculated the percent of revenues spent to every other industry within the Lake Tahoe Basin. For example, 0.21 percent of revenue to “Retail stores - Clothing and accessories” in the Basin went to “Electric power generation, transmission, and distribution” businesses in the Basin.⁷ Nationally, 1.36 percent of sales in “Retail stores - Clothing and accessories” went to “Electric power generation, transmission, and distribution,” according to IMPLAN. Therefore, a gap of 1.15 percent exists for this industry-to-industry transaction. IMPLAN estimates there are more than \$38.9 million in “Retail stores - Clothing and accessories” sales in the Lake Tahoe Basin in 2008. This means a gap (leakage) of more than \$447,000 exists for this particular industry-to-industry transaction.

The following table A3 demonstrates the flow of CED’s industry-to-industry leakage calculations using the example described above.

TABLE A3
LEAKAGE EXAMPLE – RETAIL CLOTHING STORES TO ELECTRICITY

Payment Industry NAICS		448xxx
Payment Industry Description	Retail Stores - Clothing and clothing accessories	
Receipt Industry NAICS		2211xx
Receipt Industry Description	Electric power generation, transmission, and distribution	
LT Basin Pct. of Revenue		0.21%
USA Pct. of Revenue		1.36%
Gap (Leakage)		1.15%
LT Basin Payment Industry Revenue		\$38,925,319
Leakage Value		\$447,641

Source: Center for Economic Development at CSU, Chico and IMPLAN

The above calculation was conducted for all 118,760 identified industry-to-industry transactions for Lake Tahoe Basin industries (see Table A3). Results were tabulated by receipt industry, giving total leakage by receipt industry (industry from which businesses are going outside of the Basin to buy). The following table (Table A4) shows the top ten of the 416 industry sectors for which this calculation is possible.

⁷ Any power generation, distribution, or customer service establishments located in the Basin will capture local sales, even if the electricity payments by local businesses are sent directly sent to Reno. IMPLAN treats dollars flowing to from a business in the region to a second business outside the region, then to an establishment of the second business inside the region, as an intraregional (local) purchase.

**TABLE A4
TOP TEN INDUSTRIES FROM WHICH ALL LAKE TAHOE BASIN BUSINESSES
PURCHASE OUTSIDE OF THE BASIN**

NAICS Code	NAICS Description	Leakage
2211xx	Electric power generation, transmission, and distribution	\$56,741,151
32411x	Petroleum refineries	\$50,605,245
531xxx	Real estate (lessors, agents, property managers, etc.)	\$46,163,204
5241xx	Insurance carriers	\$43,882,953
42xxxx	Wholesale trade businesses	\$40,640,445
5222xx and 5223xx	Nondepository credit intermediation and related activities (mostly financing on credit)	\$36,033,511
517xxx	Telecommunications	\$35,042,039
51913x	Internet publishing and broadcasting	\$31,762,470
5613xx	Employment services (mostly temporary employment services)	\$28,949,887
5411xx	Legal services	\$27,488,326

Source: Center for Economic Development at CSU, Chico and IMPLAN

The analysis was repeated for spending of businesses in each of the business clusters (Tourism and Visitor Services, Environmental Innovation, and Health and Wellness) outside of the Lake Tahoe Basin. Analysis by business cluster may provide additional insight for capturing potential spending in the basin. The following three tables (Tables A5, A6, and A7) show the top ten industries from which Lake Tahoe Basin businesses purchase outside of the basin. In these analyses, secondary job potential was included based on the average number of jobs per \$100,000 in sales for each industry in the U. S.

**TABLE A5
TOP TEN INDUSTRIES FROM WHICH TOURISM AND VISITOR SERVICES BUSINESSES IN THE
LAKE TAHOE BASIN PURCHASE OUTSIDE OF THE BASIN**

NAICS Code	NAICS Description	Leakage	Secondary Job Potential
2211xx	Electric power generation, transmission, and distribution	\$ 34,102,705	39
5241xx	Insurance carriers	\$ 16,150,962	53
531xxx	Real estate (lessors, agents, property managers, etc.)	\$ 14,633,466	90
5418xx	Advertising and related services	\$ 14,492,344	105
517xxx	Telecommunications	\$ 12,860,150	25
42xxxx	Wholesale trade businesses	\$ 12,717,361	64
51913x	Internet publishing and broadcasting	\$ 12,186,473	13
32411x	Petroleum refineries	\$ 12,175,046	1
32311x	Printing	\$ 10,325,162	62
5613xx	Employment services (mostly temporary employment services)	\$ 8,138,453	208

Source: Center for Economic Development at CSU, Chico and IMPLAN

**TABLE A6
TOP TEN INDUSTRIES FROM WHICH ENVIRONMENTAL INNOVATION BUSINESSES IN THE
LAKE TAHOE BASIN PURCHASE OUTSIDE OF THE BASIN**

NAICS Code	NAICS Description	Leakage	Secondary Job Potential
32411x	Petroleum refineries	\$14,795,405	1
32732x	Ready-mix concrete manufacturing	\$14,659,068	44
42xxxx	Wholesale trade businesses	\$10,721,240	54
5413x	Architectural, engineering, and related services	\$10,454,799	78
517xx	Telecommunications	\$6,492,903	12
33232x	Ornamental and architectural metal products manufacturing	\$5,749,130	26
484xx	Transport by truck	\$5,145,762	39
33231x	Plate work and fabricated structural product manufacturing	\$4,946,225	15
441xx	Retail Stores - Motor vehicles and parts (includes equipment)	\$4,824,135	61
32191x	Wood windows and doors and millwork manufacturing	\$4,675,455	29

Source: Center for Economic Development at CSU, Chico and IMPLAN

**TABLE A7
TOP TEN INDUSTRIES FROM WHICH HEALTH AND WELLNESS BUSINESSES IN THE LAKE TAHOE BASIN
PURCHASE OUTSIDE OF THE BASIN**

NAICS Code	NAICS Description	Leakage	Secondary Job Potential
325412	Pharmaceutical preparation manufacturing	\$9,089,955	6
531xxx	Real estate (lessors, agents, property managers, etc.)	\$5,475,839	33
517xx	Telecommunications	\$3,591,230	7
5241xx	Insurance carriers	\$3,238,024	10
5613xx	Employment services	\$3,121,644	79
6214xx, 6215xx, and 6219xx	Medical and diagnostic labs and outpatient and other ambulatory care services	\$2,885,951	18
42xxxx	Wholesale trade businesses	\$2,793,364	14
51112x	Periodical publishers	\$2,043,624	7
2211xx	Electric power generation, transmission, and distribution	\$1,984,775	2
51113x	Book publishers	\$1,546,848	4

Source: Center for Economic Development at CSU, Chico and IMPLAN

APPENDIX B: STAKEHOLDER AND RESOURCE INTERVIEWS

1. Chuck Alvey, President and CEO, Economic Development Assn. of Western Nevada
2. Claudia Andersen, President and Executive Director, Parasol Tahoe Community Foundation
3. Heather Bacon, Biltmore Tahoe Casino
4. Billy Barnwell, Equinox Carbon Equities, LLC
5. Dr. Greg Bergner, Barton Health, President, Tahoe Carson Valley Medical Group
6. Jerry Bindel, General Manager, Lakeland Village
7. Brian Bonnenfant, Project Manager, University of Nevada Reno Center for Regional Studies
8. Mike Bradford, CEO, Lakeside Resort and Casino
9. Dave Brady, Commissioner, Douglas County
10. John Breternitz, Commissioner, Washoe County
11. Craig Brinkman, Project Manager, Title III, Lake Tahoe Community College
12. Peter Brumis, CEO Ecomentum Green Marketing
13. Blaise Carrig, CEO, Heavenly Valley Ski Resort
14. Jacquie Chandler, Sustainable Tahoe
15. Michael Collopy, University of Nevada, Reno, Assistant Vice President for Research, Board of Tahoe Environmental Consortium
16. Dale Cox, Project Manager, Multi-Hazards Project, US Geological Society
17. Karen Craig, Consultant, Douglas County Economic Vitality Project
18. Heather Fargo, Executive Officer, California Strategic Growth Council
19. Steve Frisch, Executive Director, Sierra Business Council
20. Alan Gertler, Senior Director, Clean Technologies and Renewable Energy Center, and Professor, Division of Atmospheric Sciences, Desert Research Institute
21. Barbara Halsey, Executive Director, California Workforce Investment Board
22. Andrew Hargadon, Director, Center for Entrepreneurship, U.C. Davis
23. Tom Harris, Center for Economic Development, University of Reno, Nevada
24. Rob Hooper, Northern Nevada Development Authority
25. Zach Hymanson, Executive Director, Tahoe Science Consortium
26. Brya Jenkins, Director of U.C. Davis Energy Institute
27. Meea Kang, President, Domus Development
28. Nancy Kerry, Economic Development and Housing, City of South Lake Tahoe
29. Barry Klein, Vice Chancellor for Research, U.C. Davis
30. Nancy McDermid, Commissioner, Douglas County

31. Aaron McVean, Director, Institutional Research and Planning, Lake Tahoe Community College
32. Madylon Meiling, Vice President, Development, Sierra Nevada College
33. Eli Meyer, Sierra Green Building Assn.
34. Evelyn Milani, Med Start (e-health and Telemedicine, Sacramento Regional Technology Alliance)
35. Mitchell Mize, Edgewood Companies
36. Gregory Mosier, Dean, Business School, University of Nevada Reno
37. Bill Mueller, Managing Partner and CEO, Valley Vision
38. Judy Nottoli, Air Resources Engineer, California Air Resources Board
39. Alissa Nourse, Executive Director, Tahoe Youth and Family Services
40. Lauren O'Brien, Partner, Streamline Consulting
41. Gene Palazzo, Director of Economic Development and Housing, City of South Lake Tahoe
42. Steve Peck, Entrix Environmental Planning
43. Chad Praul, Environmental Incentives
44. John Reuter, Director of Environmental Studies, U.C. Davis
45. Patrick Rhamey, Director of Real Estate Development, Edgewood Companies
46. Carl Ribaldo, CEO, Strategic Marketing Group
47. Tim Ruffin, Colliers International
48. Norma Santiago, Supervisor, El Dorado County
49. Geoffrey Schladow, Director, Tahoe Environmental Research Center, U.C. Davis
50. Maia Schneider, Director of Community Development and Government Relations, Tahoe Forest Health District
51. Mike Shulters, Southwest Regional Director, U.S. G.S.
52. Brett Storey, Planning Department, Placer County
53. Terry Surles, Executive VP for Research, Desert Research Institute
54. Patrick Thayer, Edgewood Resort
55. Jim Thomas, Clark J. Guild, Jr. Endowed Chair and Director
56. David Tirman, Executive Vice President, JMA Ventures LLC
57. Emilio Vaca, Executive Director, Kings Beach Family Resource Center
58. Rob Weston, West Shore Sports
59. Roger Wittenberg, President and CEO, Boulder Bay Resort
60. Dusty Wunderlich, Environmental Consultant
61. Harmon Zuckerman, Lead, Regional Plan Update, Tahoe Regional Planning Agency

APPENDIX C: LTBP MEETING PARTICIPANTS

MARCH COMMUNITY FOCUS GROUP MEETINGS

March 10, 2010, South Lake Tahoe, Lake Tahoe Community College:

Patrick Atherton, Chair, Lake Tahoe South Shore Chamber of Commerce
Jerry Birdwell, Councilmember, City of South Lake Tahoe
Garry Bowen, Compost Tahoe
Hal Cole, Councilmember, City of South Lake Tahoe
Jason Collin, PT- Barton Health
Richard Derby, Chief Financial Officer, Barton Health
Brian DesRochers, President, Ski Run Improvement District
Elaine Goodman, Tahoe Business Monitor
“B” Gorman, President and CEO, Lake Tahoe South Shore Chamber
Michael Guss, Project Coordinator, Western Nevada Development District
Greta Hambsch, Accommodation Station
John Hitchcock, Planning and Evaluation Branch Chief, TRPA (Tahoe Regional Planning Agency)
David Jinkens, City Manager, City of South Lake Tahoe
Craig Johnson, Carpenter’s Local Union #1789
Paul Killpatrick, Superintendent/President, LTCC
Kimberly Kuntz, General Manager, Tahoe Daily Tribune
Roberta Mason, Board Member, Lake Tahoe Community College
Aaron Mc Vean, Director, Research and Planning, Lake Tahoe Community College
Gary Midkiff, President, Midkiff and Assoc.
Paul Moniot, NCCRC (Northern California Carpenter’s Regional Council)
Paul Nielsen, Branch Chief, Environmental Improvement, TRPA
Dave Norton, HPFA (High Performance Fortran Associates)
Perry R. Obray, Resident
Gene Palazzo, Redevelopment Director, City of South Lake Tahoe
Ron Radil, Executive Director, Western Nevada Development District
Norma Santiago, Supervisor, El Dorado County
Austin Sass, Resident
Ray Sidney, Big George Ventures
Andrew Strain, Vice President of Planning & Government Affairs, Heavenly Mountain Resort
Steve Teshara, Executive Director, Sustainable Community Advocates
Tere Tibbets, LTCC/Outreach – Student Services
Michael Ward, Lake Tahoe Basin Prosperity Plan Project Coordinator
Tom Wendell, Chair, Sustainability Commission, City of South Lake Tahoe
Patrick Wright, Executive Director, California Tahoe Conservancy

Harmon Zuckerman, Director, Regional Plan Update, Tahoe Regional Planning Agency

March 11, 2010 North Lake Tahoe, Kings Beach Event Center:

Claudia Andersen, Executive Director, Parasol Tahoe Community Foundation

Heather Bacon, Tahoe Biltmore

Karen Craig, Consultant, Douglas County Economic Vitality

Lisa Dobey, Truckee Tahoe Community Foundation

David Gemme, Sierra Green Building Assn.

Chuck Greene, APC/TRTA/SFRC/IVCBHS (Advisory Planning Comm., TRPA; Tahoe Rim Train Assn.; Sierra Front Recreation Coalition; Incline Village Crystal Bay Historical Society)

Cindy Gustafson, General Manager, Tahoe City Public Utility District

Michael Guss, Western Nevada Development District

Kathy Halbardier, Nevada Small Business Development Center, UNR

Brian Helm, Boulder Bay Resort Project Manager

Sarah Holster, North Lake Tahoe Resort Assn.

Steve McKibben, Headmaster, Lake Tahoe School

Eli Meyer, Sierra Green Building Assn.

Alex Mourelatos, Chair, LNTRA and Mourelatos Lakeshore Resort

Ron Radil, Western Nevada Development District

Alison Schwedner, Director, Community Collaborative of Tahoe Truckee

Carol Sesko, Arts, Truckee/Tahoe

Dave Snyder, Placer County Economic Development

Marguerite Sprague, Executive Director, Sierra State Parks Foundation

Steve Teshara, Executive Director, Sustainable Community Advocates

Ron Treabass, North Lake Tahoe Resort Assn. (NLTRA)

Michael Ward, High Bar Consulting, Lake Tahoe Basin Prosperity Plan Project Manager

Matt Welch, Reporter, Sierra Sun, North Lake Tahoe Bonanza

ECONOMIC CLUSTER MEETINGS

ENVIRONMENTAL INNOVATION CLUSTER:

April 22, 2010 Meeting, Embassy Suites, South Lake Tahoe:

Craig Brinkman, Lake Tahoe Community College

“B” Gorman, Tahoechamber.org

Michael Guss, Western Nevada Development District

David Hansen, Embassy Suites Lake Tahoe Hotel and Ski Resort

Brian Helm, Boulder Bay Resort

Zack Hymanson, Tahoe Science Consortium

Derek Kauneckis, University of Nevada, Reno
Dave Norton, HPFA
Steve Poncelet, Public Information and Conservation Manager, Truckee Donner Public Utility District
Ron Radil, Western Nevada Development District
Coleen Shade, Design Workshop
Angela Swanson, Consultant, K-12
Steve Teshara, Executive Director, Sustainable Community Advocates
Michael Ward, High Bar Consulting
Matt Welch, Tahoe Bonanza
Dusty Wunderlich, ARVCO Financial Ventures

May 21, 2010 Meeting, Kings Beach Event Center, North Shore:

Garry Bowen, Compost Tahoe/Grow Tahoe
Jacquie Chandler, Sustainable Tahoe
Jaime D'Urso, Sustainability Program, University of Reno, Nevada
David Gemme, Sierra Green Building Assn.
Michael Guss, Western Nevada Development District
David Hansen, Embassy Suites Lake Tahoe Hotel and Ski Resort
Debbie Hogan, Integrated Environmental Restoration Services
Derek Kauneckis, University of Nevada, Reno
George Koster, George Koster Consulting
Jennifer McVey, Protect Our Winters
Eli Meyer, Sierra Green Building Assn.
Judy Nottoli, California Air Resources Board
Chad Praul, Environmental Incentives
Ron Radil, Western Nevada Development District
Norma Santiago, Supervisor, El Dorado County
Susan Simon, Simon Environmental Planning
Dave Synder, Placer County Economic Development
Scott Terrell, Terrell Consulting, Conservation Manager, Truckee Donner Public Utility District
Michael Ward, High Bar Consulting
Dusty Wunderlich, AVRCO Financial Ventures
Kristin York, Sustainametrics

HEALTH AND WELLNESS ECONOMIC CLUSTER MEETINGS

April 21, 2010, Lake Tahoe Community College, South Shore:

Mary Bittner, Barton Health

Jason Collin, Barton Health
Kindle Craig, Barton Health
Richard Derby, Barton Health
Elaine Goodman, Tahoe Business Monitor
Matt Johnson, South Tahoe Crossfit
Paul Killpatrick, Lake Tahoe Community College
Dave Norton, HPFA
Alissa Nourse, Tahoe Youth and Family Services
Rob Quadri, Barton Health
Monica Sciuto, Barton Health
Coleen Shade, Design Workshop
Steve Teshara, Executive Director, Sustainable Community Advocates
Ann Truscott, Barton Health
Michael Ward, High Bar Consulting

May 19, 2010, Kings Beach Event Center, North Shore:

Dr. Greg Bergner, Barton Health
Mary Bittner, Nursing, Barton Health
John Breternitz, Commissioner, Washoe County
Sam Driggers, Economic Development, El Dorado County
Michael Guss, Western Nevada Development District
Tom Harris, Center for Economic Development, University of Reno, Nevada
Warren Jensen, Center for Economic Development, CSU Chico
Dr. Michael Lewis, Tahoe Center for Orthopedics, Barton Health
Steve McKibben, Lake Tahoe School
Alex Mourelatos, Mourelatos Lakeshore Resort
Ron Radil, Western Nevada Development District
Chris Spencer, Occupational Health and Clinics (Community Health), Tahoe Forest Hospital
Steve Teshara, Executive Director, Sustainable Community Advocates
Terry Tuttle, Western Nevada Development District
Kelli Twomey, Tahoe Center for Health and Sports Performance, Tahoe Forest Health District
Michael Ward, Lake Tahoe Basin Prosperity Plan, High Bar Consulting

TOURISM AND VISITOR SERVICES ECONOMIC CLUSTER MEETINGS

April 22, 2010, Embassy Suites Hotel, South Lake Tahoe:

Patrick Atherton, Lake Tahoe South Shore Chamber of Commerce
Heather Bacon, Biltmore Tahoe Casino
Joy Barney, USDA Forest Service – Lake Tahoe Basin Management Unit

Casey Blann, Heavenly Ski Resort
Craig Brinkman, Lake Tahoe Community College
Ward Bullard, Harrah's Northern Nevada
Carol Chaplin, Lake Tahoe Visitors Authority
Andy Chapman, North Lake Tahoe Resort Assn.
"B" Gorman, Tahoechamber.org
Chuck Greene, Tahoe Rim Trail Assn., and others
Trish Guerrieri, GaryAir Taxi
Judy Harkins, Assistant, Office of Supervisor Norma Santiago, El Dorado County
Bill Hoffman, Incline Village, Crystal Bay Visitors Bureau
Sarah Holster, North Lake Tahoe Resort Assn.
Jeremy Jacobson, North Lake Tahoe Resort Assn.
Ted Johanson, 968 Park Hotel
Paul Killpatrick, Lake Tahoe Community College
Steve Noll, Design Workshop
Dave Norton, HPFA
Carl Ribaud, Strategic Marketing Group
Andrew Strain, Heavenly Ski Resort
Steve Teshara, Executive Director, Sustainable Community Advocates
Michael Ward, High Bar Consulting, Lake Tahoe Basin Prosperity Plan
Natalie Yanish, Tahoechamber.org, South Lake Tahoe Wedding and Honeymoon Assn.

May 20, 2010, Kings Beach Event Center, North Shore

Heather Bacon, Biltmore Tahoe Casino
Casey Blann, Heavenly Ski Resort
Kathryn Cooper, Tahoe City Downtown Assn.
Karen Craig, KCC Communities
Chuck Greene, Tahoe Rim Trail Assn, Incline Village, Crystal Bay Visitors Bureau
Ted Johanson, 968 Park Hotel
Alex Mourelatos, Mourelatos Lakeshore Resort, North Lake Tahoe Chamber of Commerce
Joanne Neft, Writer/Cookbook Author
Steve Noll, Design Workshop
Ron Radil, Western Nevada Development District
Matt Renda, Sierra Nevada Media Group
Norma Santiago, Supervisor, El Dorado County
John Singlaub, Sierra Business Council, Tahoe Rim Trail Assn.
Marguerite Sprague, Sierra State Parks Foundation
Cheri Sprenger, North Tahoe Business Assn.
Steve Teshara, Executive Director, Sustainable Community Advocates

Ron Treabass, North Lake Tahoe Resort Assn.
Terry Tuttle, Western Nevada Development District
Michael Ward, High Bar Consulting, Lake Tahoe Basin Prosperity Plan
Bill Wood, Crystal Bay Casino
Natalie Yanish, Tahoe Chamber, South Lake Tahoe Wedding and Honeymoon Assn.

June 24, 2010, South Lake Tahoe Visitors Center, South Lake Tahoe:

Patrick Atherton, Lake Tahoe South Shore Chamber of Commerce
Rob Beltramo, Washoe Tribe of Nevada and California
Casey Blann, Heavenly Ski Resort
Garry Bowen, Compost Tahoe
Kristin Cattell, Sierra-at-Tahoe
Andy Chapman, North Lake Tahoe Resort Assn.
David Childs, Washoe County
Jason Collin, Barton Health
Claire Fortier, City of South Lake Tahoe Sustainability Commission
Steve Frisch, Sierra Business Council
“B” Gorman, Tahoechamber.org
Lisa Granahan, Douglas County
Scott Griffith, Lake Tahoe Community College
Kathy Halbardier, Small Business Development Center, University of Nevada, Reno
David Hansen, Embassy Suites
Mark Harris, Tahoe Technologies, LLC
Leslie Jennings, USDA Forest Service
Bill Mueller, Valley Vision
Steve Noll, Design Workshop
Judy Nottoli, California Air Resources Board
Gene Palazzo, City of South Lake Tahoe, Redevelopment Agency
Rob Quadri, Barton Health
Norma Santiago, Supervisor, El Dorado County
Chris Spencer, Tahoe Forest Health District
Steve Teshara, Executive Director, Sustainable Community Advocates
Tom Wendell, Compost Tahoe/City of South Lake Tahoe Sustainability Commission

RESOURCE PARTNERS MEETINGS

July 16, 2010

Claudia Andersen, Parasol Tahoe Community Foundation
Andy Chapman, North Lake Tahoe Resort Assn.

Sam Driggers, El Dorado County Economic Development
“B” Gorman, Tahoechamber.org
Michael Guss, Western Nevada Development District
Kathy Halbardier, Small Business Development Center, University of Nevada, Reno
Brian Hogan, US Bank
Dave Leonard, SBA, Reno Office
Aaron McVean, Lake Tahoe Community College
Gene Palazzo, City of South Lake Tahoe
Ron Radil, Western Nevada Development District
Brent Smith, SedCorp
Dave Snyder, Placer County Economic Development
Steve Teshara, Executive Director, Sustainable Community Advocates
Michael Ward, High Bar Consulting, Lake Tahoe Basin Prosperity Plan
Patrick Wright, California Tahoe Conservancy
Dusty Wunderlich, Environmental Consultant

September 10, 2010

Claudia Andersen, Parasol Tahoe Community Foundation
Molly Blann, Lake Tahoe Community College
Dave Childs, Washoe County
Karen Craig, Douglas County Economic Vitality Project
Sam Driggers, El Dorado County
Theresa Mae Duggan, Parasol Tahoe Community Foundation
“B” Gorman, Tahoechamber.org
Lisa Granahan, Douglas County
Michael Guss, Western Nevada Development District
Kathy Halbardier, Small Business Development Center, University of Nevada, Reno
Nancy Kerry, City of South Lake Tahoe
Madylon Meiling, Sierra Nevada College
Ron Radil, Western Nevada Development District
Bill Roby, El Dorado Community Foundation
Norma Santiago, Supervisor, El Dorado County
Steve Teshara, Executive Director, Sustainable Community Advocates
Michael Ward, High Bar Consulting, Lake Tahoe Basin Prosperity Plan
Patrick Wright, California Tahoe Conservancy

COMMUNITY MEETINGS

July 15, 2010, Kings Beach Event Center, North Shore:

Claudia Andersen, Parasol Tahoe Community Foundation
Neta Baughman, Neta's Nannies
Tom Birmingham, Donner Lake Software, Inc.
Gayle Blair, Tahoe Real Estate Group
Nancy Brest, Community Member
John Breternitz, Commissioner, Washoe County
Greg Campbell, Marriott
Bill Capach, Community Member
Andy Chapman, North Lake Tahoe Resort Assn.
Jason Collin, Barton Health
Jan Colyer, Truckee North Tahoe Transportation Management Assn.
Alana Crete, Smith and Jones
Pat Davison, Contractors Assn. of Truckee Tahoe
Darin Dinsmore, Sustainable Community Strategies
Deb Dudley, HD96 Custom Publishing
Tee May Duggan, Duggan and Duggan
Kym Fabel, North Lake Tahoe Chamber of Commerce
Dave Ferrari, Ferrari's Crown Resort
Judy Friedman, Tahoe Paper Trail
Chuck Greene, Tahoe Rim Trail Assn., Other Groups
Ed Gurowtiz, Community Member
Michael Guss, Western Nevada Development District
Cindy Hannah, St. Joseph Community Land Trust
Mark Harris, Tahoe Technologies LLC
Tom Harris, Center for Economic Development, University of Nevada, Reno
Brian Helm, Boulder Bay Resort
John Hitchcock, Tahoe Regional Planning Agency
Deb Howard, Deb Howard Realty
Beth Ingalls, Moonshine Ink
Bill Johnson, Tahoe Reno Properties
George Koster, George Koster Associates
Sue Kyler, Community Member
Margaret Martini, Incline Village Sales
Eli Meyer, Sierra Green Building Assn.
Alex Mourelatos, Mourelatos Lake Shore Resort
Tom Murphy, Squaw Valley USA
James Nealis, New York Life
Ann Nichols, North Tahoe Preservation Alliance, Ann Nichols & Co. Realtor
Doreen Plasse-Gammon, Kirkwood Mountain Resort

Matthew Renda, North Lake Tahoe Bonanza
Carol Savary, North Tahoe Business Assn.
Maia Schneider, Tahoe Forest Health District
Alison Schwedner, Community Collaborative of Tahoe Truckee
Cheri Sprenger, North Tahoe Business Assn.
Rod Storm, North Tahoe Limo
Steve Teshara, Executive Director, Sustainable Community Advocates
Ellie Waller, Community Member
Michael Ward, High Bar Consulting
Rob Weston, West Shore Sports
Kay Williams, Granlibakken

Embassy Suites, South Shore:

There were approximately 90 attendees but names were not recorded

August 18, 2010, Economic Forum, Hyatt Hotel, Incline Village

Cynthia Abbott, Director, Field Policy and Management, Sacramento, U.S. HUD
Sarah Adler, Director, USDA Rural Development, Nevada
Shelly Aldean, Supervisor, Carson City, Nevada
Ruth Alves, Aide to Supervisor Holmes, Placer County
Claudia Anderson, President, Parasol Tahoe Community Foundation
Patrick Atherton, President, Lake Tahoe South Shore Chamber of Commerce
Rob Beltramo, Washoe Tribal Planning Director, Washoe Tribe of NV and CA
Casey Beyer, Governor of California Appointee, Tahoe Regional Planning Agency Governing Board
Allen Biaggi, Chair, Tahoe Regional Planning Agency Board
Jerry Birdwell, City Councilmember, City of South Lake Tahoe
Tom Birmingham, President & CEO, Donner Lake Software, Inc.
Judi Bishop, Director of Regional Development, Northern Nevada Development Authority
Jared Blumenfeld, Regional Administrator, U.S. EPA, Region 9*
Dave Brady, Commissioner, Douglas County, Nevada
Ross Branch, Field Representative, Office of Congressman Tom McClintock
Mara Bresnick, Member, Tahoe Regional Planning Agency Board
John Breternitz, Commissioner, Washoe County, Nevada
Michael Brown, County Manager, Douglas County, Nevada
Hudson Caden, Lenette Mapes Consulting
Tiffany Cashman, Nevada At-large Member, Tahoe Regional Planning Agency Governing Board
Timothy Cashman, Member, Tahoe Regional Planning Agency Board
Li Han Chan, Director of Operations, Nevada Institute for Renewable Energy Commercialization (NIREC)

Andy Chapman, Director of Tourism, North Lake Tahoe Resort Assn.
Dave Childs, Assistant County Manager, Washoe County, Nevada
Tom Christofk, Placer County Air Pollution Control District
Don Clark, REA 250
Susan Clark, REA 250
Hal Cole, Mayor Pro-Tem, City of South Lake Tahoe
Jason Collin, Barton Health
Joanne Connor, President, South Shore Chamber
Karen Craig, Economic Consultant, Douglas County, Nevada
Robert Crowell, Mayor, Carson City
Darin Dinsmore, Principal, Sustainable Community Strategies
Sam Driggers, Economic Development Coordinator, El Dorado County
Madonna Dunbar, Resource Conservationist, Incline Village General Improvement District
Patrick Enright, City Attorney, City of South Lake Tahoe
Heather Fargo, Executive Policy Officer, California Strategic Growth Council*
Lew Feldman, Feldman, Shaw & McLaughlin, LLP
Karen Firestein, Business and Cooperative Development Specialist, USDA Rural Development, California
Nikki Florio, Principal Consultant, Big George Green Consulting
Claire Fortier, Sustainability Commission, City of South Lake Tahoe
Alex Gamboa, Environlution
“B” Gorman, Tahoechamber.org
Lisa Granahan, Economic Vitality Manager, Douglas County, Nevada
Tom Greene, VP of Academic Affairs & Student Services, Lake Tahoe Community College
Bruce Grego, Council Member, City of South Lake Tahoe
Geraldine Grego, Planning Commissioner, City of South Lake Tahoe
Michael Guss, Vista Representative, Western Nevada Development District
Kathy Halbardier, Business & Economic Development Specialist, Northern Nevada Development Authority
Cindy Hannah, St. Joseph Land Trust
Joe Harrington, KOLO-8 News
Tom Harris, PhD, Professor, State Specialist, University of Nevada Reno – Dept. of Resource Economics
Jim Hartley, VP/VC, CH2MHill, Reno Tahoe Winter Games Coalition
Carl Hasty, District Manager, Tahoe Transportation District
Nick Haven, Tahoe Regional Planning Agency
Dean Haymore, President, Western Nevada Development District
Norine Hegy, St. Joseph Land Trust
Brandon Hill, Edgewood Properties
Jim Holmes, Supervisor, Placer County

Zach Hymanson, Executive Director, Tahoe Science Consortium
Melaine Jesse-Morres, Vice President of Development and External Affairs, Western Nevada College
Doug Johnson, Commissioner, Douglas County, Nevada
Kitty Jung, Commissioner, Washoe County, Nevada
Meea Kang, Domus Development
Trish Kelly, Principal, Applied Development Economics, Inc.
George Koster, Koster and Associates
Brian Krolicki, Lt. Governor, State of Nevada*
Jack Landy, US EPA, Region 9
Jennifer Lee, Board Member, Global Resource Initiative
David Leonard, Senior Area Manager, Small Business Administration
Dann Lewis, Director, Nevada Commission on Tourism
Gregg Lynn, Commissioner, Douglas County, Nevada
Lenette Mapes, Lenette Mapes Consulting
Joanne Marchetta, Executive Director, Tahoe Regional Planning Agency
Roberta Mason, Board Member, Lake Tahoe Community College
Caitlin McCarthy, Artist/Performer, Carson City, Nevada
Joe McCarthy, Director of Business Development, Carson City, Nevada
Nancy McDermid, Commissioner, Douglas County, Nevada
Rhonda McFarlane, Finance Director, Tahoe Regional Planning Agency
Aaron McVean, Director, Institutional Planning and Research, Lake Tahoe Community College
Dean Meiling, Board Chair, Parasol Tahoe Community Foundation*
Madylon Meiling, Vice President for Development, Sierra Nevada College
Jennifer Merchant, Principal Management Analyst, Placer County
Mitchell Mize, Edgewood Properties
Steve Mokrohisky, Assistant County Manager, Douglas County, Nevada
Jennifer Montgomery, Supervisor, Placer County
Gregory Mosier, Dean, University of Nevada Reno School of Business
Alex Mourelatos, Board Chair, North Lake Tahoe Resort Association
Bill Mueller, CEO and Managing Partner, Valley Vision
Tom Murphy, Squaw Valley USA
Rochelle Nason, Executive Director, League to Save Lake Tahoe
Judy Nottoli, Air Resources Engineer, California Air Resources Agency
Alissa Nourse, Executive Director, Tahoe Youth & Family Services
Dennis Oliver, Tahoe Regional Planning Agency
Lynn Olson, Board Member, WELL Network
Mike Olson, Chair of the Board, Commissioner, Douglas County, Nevada
Jovita Pajarillo, Associate Director, Water Division, U.S. EPA, District 9

Ron Radil, Executive Director, Western Nevada Development District
Tony Ramirez, Field Office Director, Nevada, U.S. HUD
Kae Reed, Publisher, Lake Tahoe News
Robin Reedy, Chief of Staff, Office of the Governor of Nevada
Julie Regan, Tahoe Regional Planning Agency
Patrick Rhaney, Director of Real Estate, Edgewood Properties
Corie Ritchie
William Roby, Executive Director, El Dorado Community Foundation
Richard Rubsamén, President, Sierra Nevada College
Norma Santiago, Supervisor, El Dorado County
Chuck Scharer, President and CEO, Edgewood Properties
Brent Smith, CEO, SedCorp
Kimothy Smith
Dave Snyder, Director, Office of Economic Development
Cheri Sprenger, Executive Director, North Tahoe Business Association
Brett Storey, Biomass Program Manager, Placer County
Angela Swanson, K-12 Consultant
Steve Teshara, Executive Director, Sustainable Community Advocates
Dan Thrift, Media
Ron Treabess, Interim Executive Director, North Lake Tahoe Resort Association
Rick Tremblay, Economic Development Representative, U.S. Economic Development Administration
Cynthia Tuck, Undersecretary, California EPA*
Walter Waidelich, Division Administrator, Federal Highway Administration, CA Division
Molly Wait, Supervisor, Carson City, Nevada
Carolyn Wallace Dee, Mayor, Town of Truckee
Michael Ward, Senior Consultant, HighBar Consulting
Robin Williamson, Supervisor, Carson City
Sandra Wilson, Assistant VP for Commercial Lending, US Bank
Patrick Wright, California Tahoe Conservancy
Sunne Wright McPeak, President and CEO, California Emerging Technology Fund*
Harmon Zuckerman, Director, Regional Plan Update, Tahoe Regional Planning Agency

Note: * = Panel Member

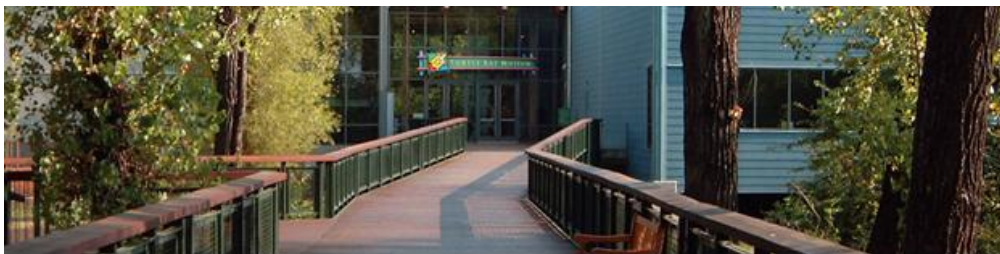
APPENDIX D: CASE STUDIES OF VISITOR SERVING, ENVIRONMENTAL RESEARCH, TECHNOLOGY-RELATED, AND SPORTS-RELATED PROJECTS IN OTHER REGIONS

1-TURTLE BAY EXPLORATION PARK AND MUSEUM (SHASTA COUNTY)

Turtle Bay Exploration Park is a 300-acre campus containing educational and entertaining activities that interpret the relationship between humans and nature. The museum is the cornerstone of the park holding five permanent and two changing exhibits on the art, history, science, and culture of the region. In addition, the park includes an art gallery, wildlife exhibits, forest camp, a summer butterfly house, amphitheater, and McConnell Arboretum and Gardens. There is space for conferences and community meetings, including those related to planning for a sustainable future.

The permanent exhibits of the Museum revolve around the local and regional history including that of the local Native Americans, natural resources, and the timber industry. The 217 foot high, 1,600 ton Sundial Bridge which crosses the Sacramento River is a signature piece of architecture designed by renowned Spanish architect Santiago Calatrava. The McConnell Foundation, Redding Redevelopment Agency, Federal Highway Administration, the U.S. Economic Development Administration and the Turtle Bay Exploration Park funded the \$23 million project.

The park opened in the mid 1980's and now provides an estimated \$9.6 million of economic activity to the Shasta County area and supports 233 full-time employees. Fifty-five work for Turtle Bay and the rest are employed due to the economic activity produced by the Park. Fifty-two percent of the Park's 156,000 annual visitors come from out of the area, and spend \$3 million outside the Park alone. (www.turtlebay.org)



2-MONTEREY BAY AQUARIUM, MONTEREY

The Monterey Bay Aquarium is a private non-profit organization that receives no public funding and maintains an annual budget of \$55 million. The mission of the Monterey Bay Aquarium is to inspire conservation of the oceans. Each year, around 1.8 million people attend nearly 200 galleries and exhibits devoted to the diverse habitats of the Monterey Bay. Exhibits include Outer Bay, the Kelp Forest, Monterey Bay Habitats, and Sea Otters along the Rocky Coast. The aquarium also contains one of the world's largest jellyfish galleries.

In 2004, it was estimated that the aquarium is responsible, directly and indirectly, for \$173 million annually of economic activity in Monterey County. With an additional \$77 million outside of Monterey County, the Aquarium impacts the California economy to the tune of \$250 million each year, and creates 930 jobs both through direct employment and spending as well as indirect economic effects.

In addition to being a tourist attraction, the Monterey Aquarium participates in education and outreach as well as resource conservation. Each year the aquarium welcomes over 80,000 children through school programs offered free of charge.

Opened in 1984, the total aquarium square footage is now 322,000 square feet. The aquarium employs approximately 425 full and part-time staff, and is provided help from over 1,000 volunteers. The Aquarium is also used for original research through its internship program and employs roughly 75 aquarists who engage in primarily research-related activities.

Several projects serve as educational and conservational including the Sea Otter Research and Conservation program. This program assesses the long-term health of California's sea otter population and play key roles in recovery efforts. The Aquarium partners with U.S. Geological Survey on this program. The White Shark Conservation Research Project is another effort where researchers "tag and track adult and juvenile great white sharks in the eastern Pacific, and collect DNA samples in an effort to map the migrations and genetic diversity." This program is made possible through the collaboration with California State University Long Beach.

The joint Tuna Research and Conservation Center project is a partnership with Stanford University and is a leading center in studying migration through tagging and documenting the genetic diversity of the "ecologically and commercially important fish." Additional partnerships include the California Department of Fish and Game as well as the U.S. Fish and Wildlife Service.

Twenty miles away is the Monterey Bay Aquarium Research Institute (MBARI). Founded in 1987, it aims to develop better instruments, systems, and methods for scientific research in the ocean by emphasizing the "peer relationship between engineers and scientists as a basic principle of its operation." The sister organization employs over a dozen Scientists and works with a number of postdoctoral research fellows, research specialists, and adjunct researchers. The Aquarium and the Research Institute do work together and share resources on occasion.

www.montereybayaquarium.org



Aerial view of Monterey Bay Aquarium. © Monterey Bay Aquarium/Randy Wilder



The aquarium was designed to resemble the sardine cannery that once occupied the site on historic Cannery Row. © Monterey Bay Aquarium/Rick Browne



Enter the Outer Bay galleries under an oval of swimming anchovies, which sets the mood for exhibits of open ocean life. © Monterey Bay Aquarium/Randy Wilder

3-NATIONAL CENTER FOR ATMOSPHERIC RESEARCH IN BOULDER

The National Center for Atmospheric Research (NCAR) has three locations within a few miles of the University of Colorado at Boulder: the Mesa Laboratory & Visitor Center, Center Green Campus, and Foothills Laboratory. Additional facilities include the Research Aviation Facility at the Rocky Mountain Metropolitan Airport and the Mauna Loa Solar Observatory in Hilo, Hawaii. With 1,025 research, technical and support staff (338 Scientists) in 2010, and a budget of \$165 million, NCAR is managed by the non-profit consortium of North American university members and affiliates of University Corporation for Atmospheric Research (UCAR).

The research and development center is federally funded through the National Science Foundation and other U.S. government agencies. Other national governments and the private sector fund the center devoted to service, research and education in the atmospheric and related sciences. NCAR aims to “understand the behavior of the atmosphere and related physical, biological and social

systems” in an effort to “support, enhance and extend the capabilities of the university community and the broader scientific community (and) foster transfer of knowledge and technology...”

The NCAR provides the university research and teaching community with access to significant tools including aircrafts, radar, supercomputing power, computer models, and user support. NCAR and university scientists partner together to research atmospheric chemistry, climate, and cloud physics and storms among other atmospheric topics. NCAR currently partners with 77 Universities listed as “Member Universities” on its web site. A general theme in these studies includes “the role of humans in both creating climate change and responding to severe weather occurrences.” NCAR also provides several educational opportunities from high school to graduate school internships.

The Mesa Laboratory & Visitor Center occupies two buildings and is open to the public, offering free educational exhibits and tours. The site includes a cafeteria, scenic trails and a picnic area called the Tree Plaza. Pre-arranged tours and field trips are common. The Mesa Lab also hosts art shows, educational family events, and weddings and other community events and meetings.

The exhibits offered are aimed at enhancing the public understanding of NCAR and of science and technology in general. Featured art exhibits change monthly in addition to visiting exhibits. One permanent exhibit highlights the architecture and history of the NCAR Mesa Laboratory. Other exhibits include one on Climate Discovery covering the past, present, and possible future climate conditions, as well as three interactive and multimedia galleries. Additional attractions include supercomputers and scientific visualization tools.

The Center Green Campus, with four buildings, houses the main conference center, reception area, an auditorium, the offices of the High Altitude Observatory, as well as additional NCAR offices. Larger events are hosted at this facility. (<http://ncar.ucar.edu>)



The Mesa Laboratory and Visitors' Center is an Architectural and historical landmark designed by world-renowned architect, I.M. Pei



Center Green Campus (Rocky Mountain Metropolitan Airport)

4-INSTITUTE OF ARCTIC AND ALPINE RESEARCH (INSTAAR) AT UNIVERSITY OF COLORADO AT BOULDER

Focusing on polar and alpine regions, where the effects of climate change are especially pronounced, and broadening, INSTAAR is a team of over 200, 25% of which are graduate students. The Institute has field sites on all continents and in the oceans, and works across disciplines partnering with 7 departments and programs on the University's Campus:

- Anthropology
- Atmospheric and Oceanic Sciences
- Civil, Environmental and Architectural Engineering
- Environmental Studies
- Ecology and Evolutionary Biology
- Geography, and
- Geological Sciences

Over the past 2 fiscal years, INSTAAR raised nearly \$18 million including 138 grants primarily from the National Science Foundation. This supported research on six continents and more than 60 papers published in scientific journals by students. The Institute performs the third most environmental research in the nation.

The Boulder Creek Critical Zone Observatory is an example of INSTAAR bringing together scientists across disciplines. This observatory is one of only six designed to study the “interactions and feedbacks between the hydrosphere, atmosphere, lithosphere, and biosphere.” Another example is the National Ecological Observatory Network designed to “detect and enable forecasting of ecological change at continental scales over multiple decades.

The Consortium for Capacity building in an INSTAAR unit is a Clinton Global Initiative and is supported by the Rockefeller Foundation. The unit is educational in nature and focuses on outreach by working in developed and undeveloped countries to mitigate and adapt to the impacts of climate change. An additional partnership includes the relationship with the U.S. Geological Survey (USGS) being developed to “help scientists in both organizations share resources and forge new research directions.”

INSTAAR aims to support the community, including through a mentorship program for University students. An annual open house is hosted for outreach to roughly 350 middle-school students and many projects include K-12 students. The Institute strives to connect students, policy makers, professionals, and the public to discoveries and ongoing research. INSTAAR scientists engage with and advise legislators as well as business and community leaders on environmental change issues, in an effort to provide research, education, and outreach related to Earth System Science and Global Change in high-latitude, alpine, and other environments. (<http://instaar.colorado.edu>)

5-INDIANA UNIVERSITY EMERGING TECHNOLOGIES CENTER

The Indiana University Emerging Technology Center (IU ETC) aims to “incubate and accelerate life sciences, biotechnology and bioinformatics companies” and “promoting IU and industry partnerships to foster economic growth,” both in Indiana. The Center is “the first of four buildings that will ultimately provide incubation and post-incubation space for emerging technology companies.” Scott McLaughlin, a managing partner of a company recently graduated from IU ETC, said that the Center “has provided us with the perfect intellectual environment to foster innovative ideas from concept to product.”

Open since 2003, IU ETC is a state-of-the-art facility with direct access to the IUPUI campus located along a “beautiful Canal Walk” with downtown skyline views. The two-story, 62,500 square foot building offers a range of benefits including:

- Custom furnished office and/or lab flex space
- short-term and flexible leases
- several additional conference, meeting, and support facilities
- subsidized facility access



Courtesy of Indiana University
Contact info-iuetc@indiana.edu
317.278.4100

- subsidized comprehensive on-site services
 - administrative support
 - clerical support
 - bookkeeping support
 - IT support
 - business advisors

- capital access assistance

IU ETC works with roughly 20 carefully selected entrepreneurs and established companies that have significant growth potential. The Center provides support, guidance and resources aiding in the development and application of health and life science products and technology.

http://www.iuetc.org/update/etc_home_low.html

6-U.S. OLYMPIC COMPLEX IN COLORADO SPRINGS

The U.S. Olympic Complex in Colorado Springs, built on what was the ENT Air Force Base and the North American Defense Council, acts as headquarters for the U.S. Olympic Committee administration and the Olympic Training Center programs. The site has been developing since 1978 and includes a mid-nineties \$24 million sports medicine and sport science center, and an athlete center including housing and dining facilities.

The mission and philosophy center around providing the best training support in the world to U.S. Olympic and Paralympic athletes by providing state-of-the-art facilities and expert staff. Although not the focus of the center, the sports medicine and sports science center does engage in some research.

Athletic facilities include a 45,000 square foot aquatic center, a 59,000 square foot 14-sport gymnasium and a an additional 54,000 square foot sports center with training facilities that can accommodate nine different sports. The Olympic Shooting Center is the largest indoor facility of its kind.



The Olympic Visitors Center, accessible to the general public, houses the U.S. Olympic Hall of Fame, indoor reception area, retail store, and a 225-seat auditorium. A video and walking tour of the facilities are provided free of charge. The Complex is a property of, and funded by, the United States Olympic Committee. The Olympic Committee is funded roughly 80% by corporate sponsors including NBC in exchange for television broadcasting rights. The remaining 20 percent is funded by private donors.

Colorado Springs is an athletic destination at least in part due to the Complex. After the Complex was built, the athletics industry grew in the area so much that University of Colorado at Colorado Springs now has a business degree in sports management. (<http://www.teamusa.org/about-usoc/colorado-springs-olympic-training-ctr>)

7-U.S. SKI AND SNOWBOARD ASSOCIATION (USSA) CENTER OF EXCELLENCE NEAR PARK CITY, UTAH

Funded with private donations from the U.S. Ski and Snowboard Association Legacy Campaign endowment fund The Center of Excellence is a new facility for which the dedication was held in July of 2007. The Center is touted as a “training and education facility providing world-class training facilities and serving as an educational resource for the USSA’s athletes, coaches, officials, clubs, parents, volunteers and other stakeholders nationwide.” The Center is designed to connect American skiers and snowboarders and provide an international showcase for them.

The three floor Center is 85,000 square feet on five acres. The “Walk of Fame” entryway displays a significant historic look at USSA for visitors and athletes alike. Facilities include a weight room, Cardio Center, and exercise facilities with a full-sized gymnasium and a collection of ramps and trampolines. Other facilities include the Jackson Sport Science Lab which provides world class support for elite-level athletes as well as a source of education and research for youth and domestic programs, and the Sport Science Lab serves as a center for high-tech physiological research and analysis.



The Physical Therapy Rehab and Recovery Center provides workout and injury rehabilitation services, with hydrotherapy pool, whirlpools, plunge pools, and steam and sauna facilities. The Hoff Family Nutrition Center supports the ongoing healthy of athletes through education and providing services during intensive workouts and camps.

The Center includes a variety of other facilities from an equipment room to lounges, café’s and offices. The Borgen Swartz Resource Communications Center provides top-of-the-line video technology for performance analysis and is also utilized for educational programs for youth among

other purposes. The Jacolyn and John Bucksbaum Education Center provides the balance of an academic sanctuary with counseling and educational programs. (<http://www.usa.org>)

8-WORLD CUP SKIING SNOWBOARD VENUES

- Locations in US/North America:
 - North America 2011 snowboard world cup venues
 - Center of Excellence near Park City, Utah
 - Quebec City, Stoneham, Canada
 - Canada Olympic Park in Calgary (skiing/snowboarding facility, not much more)
 - North America 2011 skiing world cup venues
 - Canada Olympic Park in Calgary
 - Lake Placid, NY, USA
 - Mont Gabriel, PQ, Canada
 - Aspen, CO, USA
 - ◆ 4 mountains
 - ◆ 5,300 acres of terrain
 - ◆ “Dozens of great events”
 - ◆ Invested \$130 million+ in the last six years in on-mountain improvements.
 - ~ 11 new lifts
 - ~ 3 new restaurants
 - ~ \$17 million children's center
 - ◆ Two 22-foot Olympic size Superpipe, (for Olympian training)
 - Avon, CO, USA “Vail Valley Foundation”

Lake Placid NY Olympic Summer and Winter Facilities:

- a. Opened in 1982 (present facility in 1989).
- b. Purpose is to assist athletes in a variety of Olympic sports- also provides support to a number of affiliated sports organizations and disabled sports organizations.
- c. Winter Sports supported include: biathlon, bobsled, figure skating, ice hockey, luge, skiing and speed skating.
- d. Summer Sports supported include: boxing, canoe and kayak, judo, rowing, synchronized swimming, taekwondo, team handball, water polo and wrestling
- e. Also includes housing, athlete center with 20,000 sq ft gym, dining facilities, admin offices, sports medicine, weight room, meeting space, store, and a sports science-testing lab.

APPENDIX E: BIBLIOGRAPHY AND REFERENCE RESOURCES

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APPENDIX F: POTENTIAL FOUNDATION GRANT SOURCES, SELECTED TAHOE & OTHER GRANTEES

**TABLE F-1
GRANT MATRIX 1**

Funder	Recipient/Location, URL	Recipient Type	Funding Award/Year	Project Category/Description
Richard and Rhoda Goldman Fund	Sierra Nevada Alliance/South Lake Tahoe, CA, www.sierranevadaalliance.org	Environment, alliance/advocacy; Rural development	\$75,000/2009	Program development; Research; Continuing support, To develop conservation-oriented solutions to state water planning in response to climate change and population growth
The James Irvine Foundation	Placer Community Foundation/Auburn, CA, www.placercf.org	Foundations (community)	\$42,5000/2005	Management development/capacity building; Program development, To implement plans for growth
American Express Foundation	Umpqua Community Development Corporation/Roseburg, OR, www.umpquacdc.org	Community development, neighborhood development; Housing/shelter, development	\$30,000/2005	Community development, neighborhood development; Economically disadvantaged; Housing/shelter, development,
The Bank of America Charitable Foundation, Inc.	El Dorado Hills Community Vision/El Dorado Hills, CA,	Community development, neighborhood development	\$65,000/2008	Community development, neighborhood development,
The Bank of America Charitable Foundation, Inc.	Community Services Agency and Development Corporation/Reno, NV, www.csareno.org	Community development, neighborhood development; Housing/shelter, development	\$20,000/2008	Community development, neighborhood development; Economically disadvantaged; Housing/shelter, development,
Citi Foundation	Nevada Microenterprise Development Corporation/Reno, NV, www.4microbiz.org	Community development, small businesses	\$20,000/2008	Community/economic development, management/technical assistance; Community development, small businesses; Economically disadvantaged, Program development
Ewing Marion Kauffman Foundation	Nevada's Center for Entrepreneurship and Technology/Carson City, NV, www.newnevada.com	Community development, small businesses; Economic development	\$5,000/2006	Community development, small businesses; Economic development, For 5th Annual Silver and Gold Venture Capital Conference in Reno, Nevada, October 18-19, 2005
Donald W. Reynolds Foundation	Nevada's Center for Entrepreneurship and Technology/Carson City, NV, www.newnevada.com	Community development, small businesses; Economic development	\$25,000/2005	Research, For feasibility study for entrepreneurship center in Southern Nevada
U.S. Bancorp Foundation, Inc.	Nevada Microenterprise Development Corporation/Reno, NV, www.4microbiz.org	Community development, small businesses	\$10,000/2008	General/operating support (Community development, small businesses; Economically disadvantaged), For general operating support

**TABLE F-1
GRANT MATRIX 1**

Funder	Recipient/Location, URL	Recipient Type	Funding Award/Year	Project Category/Description
W. K. Kellogg Foundation	Los Angeles Alliance for a New Economy/Los Angeles, CA, www.laane.org	Employment, services; Urban/community development	\$250,000/2009	Program Development (Economically disadvantaged; Employment, services; Immigrants/refugees; Minorities; Urban/community development), To create pathways to jobs with livable wages and health benefits for low-income and at-risk residents in Los Angeles County by supporting a construction careers and green jobs program that uses innovative set of policies and programs, and provide technical assistance and training through a collaborative process with stakeholders in Michigan, Mississippi, and New Mexico for possible replication of the model
Surdna Foundation, Inc.	Green for All/Oakland, CA, www.greenforall.org	Economic development; Environment, energy	\$500,000/2010	General Operating Support (Economically disadvantaged; Economic development; Energy), For general support for Green For All to focus on advocating for a green economy, strengthening local infrastructure, and building a movement to promote green jobs and the environment in select urban centers throughout the United States
Weingart Foundation	Generating Renewable Ideas for Development Alternatives/Oakland, CA, www.gridalternatives.org	Environment, energy; Environment, management/technical assistance	\$10,000/2009	Program Development (Economically disadvantaged; Employment, services; Energy; Environment, energy; Environment, management/technical assistance; Management/technical assistance), For the Greater Los Angeles Green Jobs Partnership Project

**TABLE F-2
GRANT MATRIX 2**

Funder	Grant Category Focus	Funding Awarded (1)	Number of Grants Awarded (1)	Notes
The Wachovia Wells Fargo Foundation, Inc. Charlotte, NC (704) 374-6128 communityaffairs@wachovia.com www.wachovia.com/wachoviafoundation	Arts and Culture, Community Development, Education, Environment, Health Care, Human Services, Population Groups, Economically Disadvantaged	\$83,535,240	3,545	Does not Fund California Projects
Wells Fargo Foundation Timothy G. Hanlon Los Angeles, CA thanlon@wellsfargo.com www.wellsfargo.com/donations	Education, job creation and job training, housing, human services, and economic development	\$59,219,370	10,393	Giving primarily in areas of company operations
American Express Foundation Timothy McClimon New York, NY home3.americanexpress.com/corp/giving_back.asp	Arts and culture, disaster relief, human services, community development, and civic affairs	\$9,853,200	192	California emphasis is in LA and San Francisco
The Bank of America Charitable Foundation, Inc. Charlotte, NC (800) 218-9946 www.bankofamerica.com/foundation/index.cfm	Arts and culture, education, health, employment, housing, human services, community and economic development, and leadership development	\$160,005,734		Special emphasis is directed toward programs designed to address critical issues in local communities
Donald W. Reynolds Foundation Karina Mayer, Grants Manager Las Vegas, NV generalquestions@dwrf.org www.dwreynolds.org	Health Care, Higher Education, Human Services, Medical Research, Public Affairs	\$110,254,802	90	Not Primarily Giving in California
Ewing Marion Kauffman Foundation Joy Torchia, Comms. Mgr. Kansas City, MO (816) 932-1000 info@kauffman.org www.kauffman.org	Community development (business promotion and small business), Education (general, public policy and services), Mathematics, and Science	\$37,622,706		

**TABLE F-2
GRANT MATRIX 2**

Funder	Grant Category Focus	Funding Awarded (1)	Number of Grants Awarded (1)	Notes
Richard and Rhoda Goldman Fund Allie Ottoboni, Grants Mgr. San Francisco, CA (415) 345-6300 www.goldmanfund.org	Jewish Affairs, population studies, Quality of Life in SF Bay Area, and the environment	\$43,213,312		Giving primarily in the San Francisco Bay Area, CA, and Israel. The foundation has reduced their payout due to the Economic Crisis
The James Irvine Foundation Kelly Martin, Dir., Grants Admin. San Francisco, CA (415) 777-2244 grantsadmin@irvine.org www.irvine.org	Arts, California Democracy, Creative Connections, Leadership, Youth	\$83,033,900		Giving limited to CA.

Source: Research conducted by George Koster