

Methods, tools and techniques for measuring sustainability in tourism based communities

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Abstract

Tourism based communities universally struggle with the ability to maintain a balance between a desired community identity, long-term economic vitality, and sensitivity to and protection of natural resources. Both urban and rural communities can benefit from the implementation of methods, tools, and techniques that help identify a cohesive community vision. In particular, rural communities at risk of encroaching growth from neighboring urban communities can establish measurable goals and strategies for maintaining the integrity and character of the community, and an appropriate, sustainable growth rate which accommodates both residents and visitors with a thriving environment within which to live, work and play.

Keywords: community indicators, community vision, economy, environment, growth management, rural, sustainability, tourism, visual preference survey.

1 Introduction

Clark County, Nevada has maintained one of the highest growth rates in the United States since the late 1980's. Fueling this sustained growth of more than 5,000 residents per month is its tourist-based economy. Home to the world-famous "Las Vegas Strip," Clark County provides a unique mix of urban and rural communities and lifestyles. Of 8,060 square miles in land area, more than 90% of Clark County is rural in character.



While the indigenous Native American population of Clark County can trace its roots back 12,000 years, Caucasian settlement of the area began with Spanish explorers in 1829. In the mid-1800's, a group of settlers who established themselves as multi-generational permanent residents of Clark County were the members of the Church of Jesus Christ of Latter Day Saints (the Mormons.) These early residents formed agricultural and mining-based communities, and also contributed to the development of the railroad, home construction, and business development of fledgling Clark County communities. In the early 1930's, the construction of Boulder Dam, later renamed Hoover Dam, brought another wave of settlers who established permanent ties to the community in both the urban and outlying areas of the county. This cultural and historical heritage is relevant, as many of these same communities that formed around the natural springs and rivers necessary to sustain agriculture, livestock, and mining, still exist today.

World War II brought additional opportunities for growth with the establishment of Nellis Air Force Base, including the Nevada Test and Training Range, the Nevada Test Site, and a tiny air strip that has evolved to become McCarran International Airport, the sixth busiest airport in the country, bringing 47 million passengers annually through Las Vegas (Clark County Website [1]). Both the air force base and the Nevada Test Site brought a strong military, research science, and technology presence to Las Vegas. Nellis Air Force Base and training range operations were vital during World War II, and today remain vital military assets in support of the Iraq and Afghanistan wars. At the same time, legalized gambling brought the first of many hotel/casinos to both downtown Las Vegas and the "remote" southern part of the town, which is now the internationally renowned Las Vegas Strip. Tourism attracts over 40 million people a year to the region, with 250,000 tourists on any given day visiting Clark County and its various tourist attractions. Clark County's resident population exceeds 2 million (Clark County [1]).

Tourism is not limited to those activities for which Las Vegas is primarily known: gambling and adult entertainment. Clark County is home to many outdoor recreational tourist attractions, including Red Rock National Recreation Area, Mt. Charleston Recreation Area, Lake Mead National Recreation Area, and the Colorado River. While these locations provide both residents and visitors with unique and fulfilling leisure opportunities, they contribute to a number of environmental concerns. The arid, desert climate in Southern Nevada is both a blessing and a curse for rural recreational tourism. Minimizing the environmental impact to water quality and supply, air quality, species, cultural resources and environmentally sensitive lands is a high priority for residents and elected officials.

While the diverse tourism based communities within Clark County provide unique opportunities and challenges, local government officials have implemented a number of methods, tools, and techniques for establishing a framework within which to plan, implement, monitor, and measure goals and strategies which promote a balance between the economic benefits of tourism and community sustainability.



2 Clark county monitoring program

The objective of the Clark County Monitoring Program is to establish a measurable baseline to track community impacts over time, and from which impacts might be measured at a later date. This integrated community indicators program was developed to track, assess, and report over 2,200 indicators related to economic, fiscal and social factors, public health and safety, community well-being, and environmental issues. Since the initial implementation, the site was expanded to include rural community indicators in 2005, and in 2006 to include all of the cities within Clark County into the monitoring program in an effort to track municipal-level indicators (Clark County [2]). Indicators specifically related to Las Vegas area tourism include: visitor volume, airport passenger volume, room occupancy, convention attendance, gaming revenues, trip expenses per visitor, and leisure and hospitality sector employment. Indicators that can be used to measure the impacts of tourism include: transportation, public health and safety, energy consumption, water consumption, water quality, and air quality (www.monitoringprogram.com [3]). Following are two examples for how rural community indicators were identified and implemented in Clark County, Nevada.

3 Indian springs, Nevada example

Measuring sustainability in rural communities can pose a significant challenge to local governments charged with managing growth and protecting public health and safety. Clearly, growth challenges in rural communities are common across the United States, particularly in areas where adjacent fast-growing urban areas are placing pressure on outlying, rural areas to absorb or accommodate the impacts of urban growth. Such is the case in Clark County. Similar to other rural communities across the country, extreme growth pressures on the Las Vegas metropolitan area can result on measurable impacts to rural areas. Identifying and measuring the economic, fiscal, environmental, and other quality of life indicators unique to rural areas becomes even more critical. In 2004, the county, through its Nuclear Waste Oversight Program, developed a Rural Areas Community Indicators Pilot Program as a component of its Yucca Mountain Community Indicators Monitoring Program. Recognizing that the desires and needs of residents of and visitors to rural areas of Clark County differ from those in urban areas, it was important to reach out to communities along potential nuclear waste transportation routes to understand potential impacts of future shipments.

Indian Springs, Nevada, located 45 miles northwest of Las Vegas, and 45 miles from the proposed nuclear waste repository at Yucca Mountain, is a town of fewer than 1,700 residents (Clark County [1]). The U.S. Census defines rural communities as those with populations of fewer than 2,500 residents. According to the Census, rural communities in the United States encompass 80% of the land area, and 20% of the population (U.S. Census [4]). Indian Springs, due to its



adjacent proximity to the Nellis Air Force Base Test and Training Range, Creech Air Force Base, and U.S. Highway 95, has provided supplementary military housing, Nevada Test Site employee housing, and respite to travelers for decades. For many years, Indian Springs residents had expressed concern over a number of issues, including shipment of hazardous materials to and from the Nevada Test Site, impacts from air force base activities, lack of public safety support and emergency medical care, lack of adequate water and sewer systems, land use and transportation impacts, and opportunities for economic development while maintaining the rural character of the community. Through a series of community meetings and public outreach and involvement activities, including a community survey and artwork contest for school children, the residents of Indian Springs came together to develop a vision statement and objectives which provided the basis for areas of measurement through community indicators. These four priority areas included partnership and volunteerism; community development and infrastructure; future/children; and health and safety (Clark County [5]). An action plan developed by town residents and monitored by county staff has ensured ongoing progress and results. For example, since the implementation of the visioning plan, relationships with Nellis Air Force Base have improved, a plan and process for improved water supply and wastewater treatment has been implemented, public safety communication equipment has been installed, community cleanup efforts involving residents take place on a regular basis, and a recent commodity flow study assisted in identifying the major sources, frequency, and volume of hazardous materials transport on the adjacent highway. Most importantly, the community visioning results were incorporated into the land use plan update process, providing a basis for elected officials to support the community in denying land use applications inconsistent with the character and desires of the community.

4 Moapa valley, Nevada example

Moapa Valley, Nevada, is a small community of approximately 8,200 residents located adjacent to both potential rail and truck routes for Yucca Mountain shipments, approximately 65 miles northeast of Las Vegas, adjacent to Interstate Highway 15, and less than 70 miles from Yucca Mountain. For reasons similar to the case of Indian Springs, Moapa Valley was selected for a visioning exercise to provide a model for establishing and examining indicators appropriate for tracking impacts in a rural community. Through a series of public meetings held between November 2004 and June 2005, a vision statement, goals and strategies, community profile, and visual preference survey were developed as the key components of the visioning exercise (Clark County [6]). The challenges and opportunities the residents identified focused on the community's proximity to Lake Mead. Lake Mead is not only an important regional source of drinking water, but it also provides a variety of recreational opportunities for residents and visitors. Protection of nearby federal land for open space and responsible growth management of the land for future residential purposes were also key concerns. Likewise, the protection of traditional agricultural lands, protection of open



space and view sheds, and the protection, maintenance, and marketing of the community's long-standing cultural heritage were at the top of the residents' list of priorities.

Understanding what residents in a community value is a cornerstone of an effective community visioning process. One way to establish values and quality of life preferences is through establishing community indicators. Another tool that can be found in planners' toolboxes in more progressive communities is the visual preference survey. Visual preference surveys garner direct feedback from residents as to the desired appearance, aesthetics, or preferred design elements for their community (Melby [7]). In the Moapa Valley example, the project consultants used an internet-based photo-realistic visual preference survey based on resident input to build consensus and public trust within the community in an effort to develop a shared strategic vision and design criteria for future growth. In addition, visual preference surveys can be used to provide developers, architects, engineers, and planners with a clear understanding of community preference that can accelerate the public review process, expedite financing, and enhance market performance (UER [8]). As a direct result of the visual preference survey, county planners were able to develop design standards and a design overlay district as part of the land use planning update process.

A community profile was developed to identify current conditions, set forth goals and strategies, and identify indicators of successfully filling the gaps between the current and desired conditions within the community. Along with the goals and strategies, indicators related to environment, education, employment, land development, transportation, and public health and safety established a blueprint for town residents, county staff, and elected officials to follow. Such foundation provided the basis for support of future short- and long-range land use planning decisions, including land use and community infrastructure improvements (UER [9]).

5 Conclusion

In his 2004 Planning magazine article "*Living with Tourism*," author James Goodno notes, "Tourism typically helps local economies, but the benefits come at a price. Construction may degrade the environment. Tourism jobs frequently pay less than disappearing jobs in mines or lumber mills, and housing costs rise as outsiders, particularly affluent outsiders, discover the beauty of a place (Goodno [10])." It is imperative, then, that communities, both rural and urban, effectively implement the methods, tools, and techniques for understanding the residents' desired state and expectations for sustaining an agreed-upon quality of life standard. Clearly, these mechanisms can provide the basis for establishing a unified vision and goals, as well as the framework for the level of adverse impacts a community is willing to accept. Such methods, tools, and techniques are wasted, however, if they are not properly used and maintained. The most important outcomes of these suggested processes and tools are the partnership, coordination, and communication that occur between residents, stakeholders, government, and other service providers to identify challenges and issues of



concern, and implement the plans and programs that provide the best solutions. Most critical to ensure successful implementation is the ongoing dialog, incorporation of results and findings into decisions and milestones, and continued monitoring to ensure sustainability initiatives are accomplished as planned.

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