Experience and Inspiration from the Construction of United States National Parks and Gateway Communities

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Abstract: This year is the one-hundredth anniversary of the United States National Park Service (US NPS). Over the last hundred years, the national park system of the United States has become an important national asset that has played a significant role in stimulating economic development and growth as well as enhancing quality of life, especially for the gateway communities. This paper provides a brief overview of the US NPS, including its history, mission, and key planning process and approaches. The author focuses its discussion on the interdependent relationship between the gateway communities and the national park system, as well as the issues and challenges, for both those communities and the parks, associated with the recent significant growth of tourists in the parks and of visitors and residents in the gateway communities. Rocky Mountain National Park (RMNP) and the town of Estes Park, RMNP's main gateway community, are used as case studies to discuss specific issues and success stories. The paper also provides a list of lessons learned that might be considered by the research project "Study on the Green & Circular Development Strategy of the Qinba Mountains."

Keywords: US National Park Service; gateway communities; Rocky Mountain National Park; the town of Estes Park

1 US national park system overview

1.1 US national park system's history, mission, and financials

1.1.1 Yellowstone National Park and the Federal Government of the United States' jurisdiction over natural resources

Yellowstone National Park was the first true national park in the United States and the world. It was established by the US Congress through the Yellowstone National Park Act on March 1, 1872. More than two million acres (approximately 8 000 km²) of land in the states of Montana and Wyoming were taken from settlement, occupancy, or sale and "dedicated and set apart as a public park or pleasuring ground for the benefit and enjoyment

of the people." The park was placed under the US Department of the Interior (DOI), and the US Secretary of the Interior became responsible for preserving all timber, mineral deposits, geological wonders, and other resources within the park. The establishment of the park set a precedent for placing other natural reserves under federal jurisdiction [1].

1.1.2 The Organic Act and the National Park Service

To establish a unified leadership or organization to operate and manage all the existing parks and monuments, the National Park Service (NPS) was established under an act, often called the "Organic Act," that was passed by the US Congress and signed by President Woodrow Wilson on August 25, 1916. The Organic Act states that the fundamental purpose of the NPS "is

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to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." The Organic Act established the basis for the fundamental mission, philosophy, and policies of the National Park Service [1].

Today the NPS is a bureau of the US Department of the Interior with a mission to "preserve unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations." The NPS also "cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world." The national park system covers more than 3.4×10^5 km² and comprises 409 sites with 28 different designations, including 128 historical parks or sites, 78 national monuments, 59 national parks, 25 battlefields or military parks, 19 preserves, 18 recreation areas, 10 seashores, four parkways, four lakeshores, and two reserves [2].

1.2 NPS budget and financial support by others

According to the NPS, its budget for fiscal year 2016 was 2.85 billion US dollars [3]. In addition, the NPS also receives significant public support. More than 150 nonprofit groups contribute time, expertise, and about 50 million US dollars annually to the NPS across the United States. The National Park Foundation, which is the nonprofit partner of the NPS, has also provided nearly 120 million US dollars to the NPS over the past seven years. In addition, 71 cooperating associations offer programs and services enhancing educational and interpretative experiences; they provide about 75 million US dollars to the NPS in annual contributions and volunteer support [2].

1.3 Key NPS planning approaches—foundation documents

To better plan, operate, and manage the parks and enhance government accountability and appropriate use of the limited public funding, every park operating unit of the NPS is required to develop a foundation document that includes a formal statement of the park's core mission, as well as the following core elements:

- Park purpose: the park purpose is the specific reason(s) for establishing a particular park. A park purpose statement is grounded in a thorough analysis of the park's founding legislation (or executive order) and legislative history, and may include information from studies that were generated prior to the park's establishment. The park purpose statement goes beyond a restatement of the law to document shared assumptions about what the law means in specific terms to that particular park.
- Park significance: the park significance statement expresses why the park's resources and values are important enough

to warrant national park designation. Statements of the park's significance describe why an area is important within a global, national, regional, and system-wide context. Significance statements are directly linked to the purpose of the park and are substantiated by data or consensus that reflect the most current scientific or scholarly inquiry and cultural perceptions, which may have changed since the park's establishment.

- Interpretive themes: interpretive themes connect park resources to relevant ideas, meanings, concepts, contexts, beliefs, and values. They support the desired interpretive outcome of increasing visitor understanding and appreciation of the significance of the park's resources. In other words, they are the most important messages to be communicated to the public about the park. Interpretive themes are based on the park's purpose and significance.
- Fundamental resources: fundamental resources and values are features, systems, organisms, processes, visitor experiences, stories, scenes, sounds, smells, or other attributes of the park that are determined to warrant primary consideration during planning and management because they are critical to achieving the park's purpose and maintaining its significance.
- Other important resources: other important resources and values are those that are determined to be integral to park planning and management, although they are not related to the park's purpose and significance.

According to the NPS, the primary advantage of developing and adopting a foundation document is the opportunity to integrate and coordinate all kinds and levels of planning and decision making from a single, shared understanding of what is most important about the park. The process of preparing a foundation document helps park managers, staff, and stakeholders develop or affirm an understanding of what is most important about the park and identify the additional information needed to plan for the future.

The foundation document provides basic guidance and serves as a foundation for all planning and management decisions. It can be used in all aspects of park management to ensure that the most important management objectives are accomplished before addressing other items that are also important but not directly critical to achieving the park's purpose and maintaining its significance [4].

1.4 Economic benefits of the US national park system

According to a report [5] titled "2014 National Park Visitor Spending Effects," in that year a record 293 million park visitors directly spent 15.07 billion US dollars in communities within 96.5 km of a national park in the United States. This spending supported 277 000 jobs, 236 000 of which were in communities near the parks. The cumulative benefit to the US economy was 29.7 billion US dollars, returning 10 US dollars for every one

US dollar spent on NPS—a great return on the investment!

According to the 2014 NPS report, most park visitor spending was for lodging (30.6%). Other major categories included food and beverages (20.3%), gas and oil (11.9%), admissions and fees (10.2%), and souvenirs and other expenses (9.9%), other minor expenses included local transportation (7.4%), groceries and food deliveries (7.2%) and camping (2.5%)[5].

2 Gateway communities and the NPS

Since the establishment of the US national park system, the gateway communities and the national parks have been interdependent. According to the NPS, "Gateway communities are cities or towns adjacent to national parks and other protected areas. Visitors often use these communities as gateways to the parks—staying in their campgrounds or hotels, eating meals in town, purchasing supplies, and learning about the park's cultural and natural resources [6]." The gateway communities rely on the national parks to bring tourists to their main streets and town squares, while the national parks in turn rely on gateway communities to provide many basic services to the tourists, such as lodging, food, and other general conveniences. In recent years, the economic impact of national parks has extended beyond tourism. National parks have affected many gateway communities in a variety of ways, such as visitor spending, quality of life, and attracting workers and businesses. The greatest value of the natural amenities and recreation opportunities provided by the national parks has been to attract not only short-term tourists but also long-term visitors, residents, entrepreneurs, businesses, second home purchasers, and retirees to the gateway communities. In many ways, the national parks and their gateway communities have been wedded by time and necessity, and the importance of their relationship should not be underestimated.

2.1 Issues and challenges for the gateway communities and the NPS

While both the gateway communities and the national parks enjoy these great mutual benefits, there have also been issues and challenges for both, associated with the recent significant increase in tourists as well as new residents relocating from large metropolitan areas to seek a better quality of life. The following provides a brief discussion of various issues and challenges for both the gateway communities and national parks.

2.1.1 Cultural and historic fabric and sense of place

Traditionally, the gateway community served as a quick stop for tourists passing through on their way to enter the national park. Many of these gateway communities have only a few restaurants, retail and souvenir shops, and maybe some lodging places, located on the main street or town square serving the tourists. However, in recent years, as more and more tourists want to stay longer to experience the small-town culture and environment, many gateway communities have evolved into both quick stops and travel destinations themselves.

Addressing the increasing amount of tourist activities and development activities is essential to the success and future sustainability of these gateway communities. Because most of the tourists travel by car, automobile-oriented businesses are common in many of the gateway communities. The commercial strip, with gas stations, motels, drive-through restaurants, and coffee shops, has become a dominant scene. To attract motorists and to be recognized from the road at high speed, a visual image has been created with lookalike franchise businesses, one-story structures, and large billboards along long stretches of road. This image is not compatible with the natural settings of the national parks or with the traditional atmosphere of the gateway towns.

Another issue is that some gateway communities have allowed large numbers of new motels and dining establishments to be developed in a very short period of time with the sole purpose of serving tourists. This practice runs the risk of degrading the historic and cultural fabric and character of the community, which in turn will reduce the town's attractiveness to future tourists, especially because the trend of cultural and heritage tourism has been increasing in recent years.

To maintain a long-term, sustainable tourist-based economy, it is important to balance the need to preserve the natural, cultural, and historic fabric and sense of place of the community with the need to accommodate the increasing tourist demand. The cultural and historic fabric and sense of place have always been the critical components that attract current and future tourists. It is the built environment as well as the people and their activities that create the sense of place. To have sustainable tourism, the true histories and stories of the people must be preserved [7].

2.1.2 Growth and small-town character

There has been a rising trend of relocating to the gateway communities because of their clean air and water, safe streets, open space, cultural events, recreational opportunities, less congested roads, and scenic views. As advances in communication technologies make people less dependent on being based in metropolitan areas, fewer people are finding it necessary to live close to large cities. In addition to the small-town feel, the vast natural resources nearby make gateway communities all the more desirable to live in and raise a family. This trend has created significant development and growth pressures on many gateway communities, and many have built up at an extremely rapid rate with more uniform designs lacking detail and local context. This has caused once-distinctive towns to lose their character and identity and become similar to the commonplace suburban developments that ring American cities.

2.1.3 Low and high seasons and second homes

Many people are purchasing second homes as vacation spots

in the gateway communities. These second homes may remain vacant for nine months of the year. While the town appears to be busy and active in the high season, in the low or off season, it might look like a ghost town, particularly when the homes purchased as second homes are the largest and most prominent in the community.

2.1.4 Low-paying seasonal employment and shortage of affordable housing

Another issue with the tourism industry for the gateway communities is the low-paying seasonal employment and shortage of affordable housing. Often the wages earned from tourism are not enough to support a family. The jobs at many of the national parks are seasonal. For many of the national parks, the high season is the summer months, leaving the towns surrounding the parks without a tourist income for many months of the year. The large influx of new residents led to an increase in the cost of housing, and many low-income families were forced to move farther away. This created additional traffic congestion and air quality issues due to the longer commutes of the low-wage workers.

2.1.5 Traffic congestion and air pollution impacts on national parks

The growth of the gateway communities has also created various challenges and issues for the national parks. The growth in real estate development and automobile traffic has brought air pollution, congestion, and other urban problems right to the parks' doorsteps. Such pollution has impaired the scenic beauty of the parks and disrupted animal and plant life. For national parks to maintain and preserve the natural and cultural resources for this generation and future generations, comprehensive plans have been developed and implemented in various parks to eliminate or lessen the impact of the pollution.

For example, Acadia National Park implemented a temporary ban on private vehicles going to the picturesque Bubble Pond from June 23 to October 10, 2016, to improve safety and bus circulation in an area long known for congestion and illegal parking. Visitors can ride the Island Explorer bus to Bubble Pond for free through the Loop Road and Jordan Pond routes.

Another example is the town of Aspen, Colorado. After it was recognized that the beautiful roadside wildflowers in Aspen's famous Maroon Bells were dying and that the overhanging aspen trees were being choked to death, the Maroon Bells guided bus tours started in 1977. It was then that the problems of automobile air pollution, inconsiderate drivers, and very fragile high-altitude mountain terrain had to be addressed. To prevent the complete closure of the road to the Maroon Bells, the Roaring Fork Transportation Authority worked with the National Forest Service and initiated a bus service for peak hours and months. The road was closed to private cars from 7: 30 a.m. to 5: 00 p.m.,

with the exception of handicap vehicles and those with twelve or more passengers. Since the implementation of the bus program, the trees and flowers have substantially recovered, and the valley remains open for tourist visits.

2.2 Rocky Mountain National Park and the town of Estes Park

The Rocky Mountains form one of the world's longest ranges, stretching almost unbroken from Alaska to below the southern border of the United States. Rocky Mountain National Park (RMNP), a small but important portion of the Rockies range, is located in the north-central part of the state of Colorado. In 2015, a total of 4.16 million recreational visits were recorded in RMNP, making it the second most visited national park, and the eighteenth most visited park unit, in the US national park system ("park units" comprise not just national parks but also national monuments, historic sites, recreation areas, and other designations of protected areas) [8].

The town of Estes Park, Colorado, lies 112 km northwest of Denver at the eastern entrance to RMNP and has a population of approximately 5 800. It is also the location of the headquarters of RMNP. Since the establishment of RMNP by the US Congress in 1915, Estes Park and RMNP have been interdependent. Currently, RMNP relies entirely on its gateway communities, mainly the town of Estes Park, for various tourist services and accommodations, such as lodging, food, and fuel. The economic activities of the town of Estes Park also heavily rely on the tourists attracted by RMNP. The following subsection discusses the history of RMNP, the evolution of policy regarding the service facilities inside the park, and the impact of RMNP on the town of Estes Park. It also presents a success story of various collaboration efforts between RMNP and Estes Park.

2.2.1 Rocky Mountain National Park

2.2.1.1 Overview

History and size: Established by Congress on January 26, 1915, Rocky Mountain National Park encompasses approximately 1075 km² of the scenic southern Rocky Mountains. Nearly one-third of the park is above the tree line (that is, higher than 3 475 m in elevation), with the highest point being the expansive summit of Longs Peak at 4346 m [4].

Biodiversity: The park's mountains support a variety of ecosystems, including montane, subalpine, and alpine biological communities as well as lush riparian and aquatic ecosystems based in 147 lakes and 742 km of streams. The forests are interspersed with mountain meadows. Rocky Mountain National Park ranks as one of America's premier wildlife-watching destinations, showcasing elk, bighorn sheep, mule deer, moose, black bears, coyotes, cougars, eagles, hawks, ptarmigan, and scores of smaller animals. The park provides refuge for about 60 mammal

species and more than 280 recorded bird species, as well as six amphibians, one reptile, 11 fish, and countless insect species, including a large number of butterflies [4].

Human activities: The lands now known as RMNP have also been home to humans for at least 10 000 years. Human evidence surfaces in a wide range of places within the current park boundaries, including at the edges of glaciers, across the Continental Divide, and in valleys throughout the park. Aboriginal people, explorers, homesteaders, miners, hunters, and dude ranchers have all used the area at one time or another. Archeological sites and remnants of buildings and structures exist in the park as a record of human activity. Some of these sites are eligible for the National Register of Historic Places or are already on the register and are protected in the park [4].

2.2.1.2 Policy on wilderness, wildlife, and natural environment

The official slogan for the 100th anniversary celebration of the formation of RMNP was "Wilderness, wildlife, and wonder." The park's foundation document also defines the park's purpose as "to preserve the high-elevation ecosystems and wilderness character of the southern Rocky Mountains within its borders and to provide the freest recreational use of and access to the park's scenic beauties, wildlife, natural features and processes, and cultural objects [5]."

The Wilderness Act, enacted by the US Congress and signed into law by President Lyndon Johnson on September 3, 1964, is designed to protect federal land where "the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain." Parcels of land that are without any evidence of human impact and may be included in the National Wilderness Preservation System to provide an "enduring resource of wilderness" for future generations. In 2009, Congress designated most of RMNP as wilderness area under the 1964 Wilderness Act. The designation requires that the wild character, natural conditions, and scientific, educational, and historical values of RMNP be forever protected.

The ecosystems, wilderness, wildlife, and spectacular scenic beauties of RMNP are the key factors that attract millions of visitors to the park each year. However, it was an entirely different situation one hundred years ago.

Uncontrolled natural resource extraction: According to reporter Barb Boyer Buck of the *Trail-Gazette*, the Estes Park town newspaper, when the Park was first established in 1915, a herd of fewer than 50 elk roamed the Estes Park valley. When the early pioneers arrived in Estes Park in 1875, the elk were "plentiful"; however, the last elk in the area was killed just three years later. Similarly, fish had been overharvested; it was common to catch 100 or more trout in a day. The mountain bison was the first game animal to be completely eradicated from the valley. Between 1890 and 1892, the State of Colorado paid close to 67 000 US dollars in bounties for the harvesting of gray wolves,

mountain lions, grizzly bears, black bears, and coyotes. Today, there are still no grizzlies or wolves in RMNP.

In addition to the wildlife that was almost extinguished by the early settlers and hunters, the landscape itself was also depleted with extensive logging, grazing, and even wildflower gathering, a popular activity for visitors of the time [9].

Paradigm shift toward natural environment and resources: It was not until the formation of the first national park, Yellowstone, which was set aside in 1872 "for the benefit and enjoyment of the people," that there came a substantial paradigm shift in how natural resources were viewed by the public. The US forest reserve policies, issued in 1897, had one goal: to "end destructive abuses and stop waste." In addition, by the early 1900s, the middle class had grown more prosperous and could afford some leisure time to travel west, by rail and then car, and visit the mountains.

Several plans to re-establish the wildlife in RMNP were implemented in 1907: In the first five years, six million trout were brought into the streams and lakes around Estes Park through a fish hatchery along Fall River. In 1913, 29 young elk were transplanted from the Jackson Hole area in Wyoming to Estes Park. One hundred years later, RMNP and the surrounding area, including the town of Este Park, become the home for more than 3 200 elk. Each year, more than four million visitors come through RMNP, Colorado's premier national park, to enjoy the "wilderness, wildlife, and wonder [9]."

2.2.1.3 Policies and practices on service facilities and activities inside the park

While we celebrate the 100 years since the establishment of RMNP, with its more than 1 075 km² of natural wonders—mountains, valleys, lakes, and rivers—it is important to point out that, 100 years ago, the park looked quite different.

According to Barb Boyer Buck, "the first several decades after the park was established, there was a bustling community inside the park. In the 1920s, there were about 400 people who lived there every summer and the settlement boasted of its own small grocery store, post office, several lodges, farms, and even a nine-hole golf course [10]."

When RMNP was established, various management plans were adopted. In general, however, the pre-existing in holdings were allowed to continue operations, especially as they related to serving visitors to the park. In the 1930s, the park's philosophy shifted to restoring the park land to its natural state, and the NPS began purchasing private land whenever it could. When it did, the existing buildings were, in most cases, dismantled.

Mission 66: Mission 66 was a 10-year NPS program to complete many significant park improvements by 1966, in time for the 50th anniversary of the establishment of the NPS. Mission 66 dramatically expanded visitor services and made the parks easier and safer to visit by tourists in automobiles.

According to the Mission 66 Plan, most of the National Parks in the US constructed new roads, parking lots, new visitor centers and roadside wayfinding and interpretive signs and widened existing road. The main design concept is to make the National Parks out-door museums and enable visitors to enjoy the majority of the national parks from inside their automobiles. RMNP followed the same concept and constructed camping ground instead of larger lodging facilities inside the park.

In addition, planners of Mission 66 believed that RMNP should be restored to its natural state while the gateway towns are expected to be expanded and provide services that were formerly provided inside the parks. Ultimately, all the hotels once located inside the park's boundaries were removed. The RMNP policies and practice to return the park back to its natural state created a building boom of hotels and motels in the gateway communities of Estes Park and Grand Lake.

Master plan of 1976 and Hidden Valley Ski Area: The master plan of 1976 for RMNP contained more specific recommendations regarding development within its boundaries. Specifically, it recommended the following: "Physical facilities and means of access will be minimized so the visitor will focus on the park experience itself." One of these facilities, established after the park was formed, eventually fell victim to the master plan—Hidden Valley Ski Area. The Hidden Valley Ski Area included ski trails, a toboggan run, and an ice skating rink. It was a popular concession in RMNP that in 1972–1973 drew more than 40 000 people per year—almost 30% of the annual visitation [11].

When the Hidden Valley Ski Area was closed, it was an end of an era in Estes Park, and it created a hole in winter visitation that is yet to be filled.

2.2.2 Town of Estes Park

The town of Estes Park covers approximately 15 km², while the Estes Park valley, the town's planning area, is approximately 84 km². Estes Park and the Estes Park valley share many of the same characteristics, issues, and challenges that other U.S. gateway communities have [12].

2.2.2.1 Issues and challenges

Seasonal and tourist-based economy: Estes Park used to be a completely seasonal economy focused on tourism, with a large share of businesses shutting their doors during the winter months. Seasonal residents often number twice as many as the local population from approximately May to October. Combined with the four million people who visit the area during the same months and the seasonal workforce that follows them there, the area becomes very busy during the peak summer season.

Over the past 50 years, the shoulder seasons have continued to extend further into the winter, drawing guests from the Front Range Urban Corridor and across the nation. An increase in year-round residents has also led to more businesses remaining open and providing services throughout the year. Despite these improvements, Estes Park's economy and population remain more seasonal than the national averages, creating challenges for businesses trying to stay open and residents looking for a full range of annual services [12].

Affordable housing: With the increase in year-round residents, housing and land have become more expensive and less available in the Estes Park valley, making it difficult for many workers, especially the low-wage service workers, to find affordable housing. Many of the service workers are forced to live outside of Estes Park and commute into the community. Estes Park believes that affordable housing issues will need to be addressed over time through regulatory provisions, bonuses, incentives, and linkages rather than through increasing the supply of land approved for high density.

Service demands by tourists: The Estes Park valley will continue to be a mountain resort community with an economy driven by a tourism base. According to the Estes Park Comprehensive Plan, the tourist profile at Estes Park involves three major groups of individuals:

- Tourists who come from other parts of the United States;
- Tourists from the vicinity, such as Colorado, Wyoming, and Nebraska;
- and "Day trippers" who use Estes Park from easily accessible surrounding counties.

This last group must especially be understood because it represents a large number of people who may impact the community in terms of one-day demand (especially services and casual shopping). They are also the urban residents of the Front Range Urban Corridor who explore the immediate mountain facilities and, therefore, demand opportunities typically associated with elderly citizens, but also desire the kinds of entertainment typically enjoyed by younger families.

Development impacts: Continued land use development within the Estes Park valley and the area near RMNP will create various issues:

- As developments encroach on wildlife migration routes and habitat diversity, wildlife will be forced to migrate through developed areas, creating conflicts with homeowners.
- Development pressure adjacent to the national park will also increase. The NPS will look to Estes Park and Larimer County to provide a model for how gateway communities strategically develop compatible growth management programs. Increased cooperation among the town of Estes Park, Larimer County, RMNP, and the United States Forest Service is needed.
- As traffic congestion and parking demands increase, transit and the linkage between the town and RMNP will become more important.
- The reduction in open space due to new development and the resulting potential for decline in the quality of life and decrease in overall environmental quality need to be addressed.

2.2.2.2 Strategies and success stories

Estes Park, like many other gateway communities in the United States, has always faced a dilemma in meeting competing demands and interests of "old-timers" and "newcomers," tourists and local residents, growth and stability, access and remoteness, as well as the emerging trends of seeking equity and ecosystem balances since the RMNP was established in 1915. However, by constantly analyzing and understanding its strengths and weaknesses, and its challenges and opportunities, and through collaboration with RMNP, Estes Park has evolved from a small town of 218 people in 1900 to a premier mountain community of 5 800 with a thriving downtown main street, a well-known tourist destination in the United States and worldwide, a well-educated population, a medical center, a conference center, an interconnected trail system, and a kindergarten (K) for 4- to 6-yearolds through twelfth grade (12) for 17- to 19-year-olds (K-12) school system [12]. The following discussion describes specific strategies and actions implemented by Estes Park in the areas of economic development, land use planning, and transportation planning.

Economic development strategies: In November 2015, Estes Park conducted an Estes Park valley Economic Development Strategy study. According to the Estes Park valley's economic development vision as defined by this study, "The Estes Park valley is the nation's premier mountain community, supporting a wealth of year-round economic, cultural, and recreational opportunities for a multigenerational and multicultural population of residents, guests, and businesses."

Furthermore, the project outlines the diverse elements and actions needed for the Estes Park valley to have a strong, resilient, year-round economy where its residents can prosper and enjoy a high quality of life. Specifically, to achieve the economic development vision set forth in this project, it states that the community must address the following most critical needs:

- A diverse, resilient, year-round economy that helps local businesses expand, attracts new business investment, and provides services for residents and guests;
- A business environment that supports a continually evolving economy and increases the Estes Park valley's competitiveness for high-paying jobs that attract younger workers and their families.

Furthermore, the study recommended the following specific projects that will catalyze economic development:

- Constructing and maintaining a high-speed broadband network for businesses, residents, and tourists;
- Revising development policies and processes to reflect best practices and encourage redevelopment and increase the supply of workforce and seasonal housing in the Estes Park valley.

The study indicated that without the completion of the highspeed broadband network, business development in any industries outside of tourism would be challenging. If the Estes Park valley does not begin addressing workforce and seasonal housing issues today, local businesses will face ever-increasing problems with finding and retaining workers. Finally, if building codes and regulatory processes are not updated to match the needs of modern businesses, the Estes Park valley will not see necessary investments in redevelopment and local business expansions.

Furthermore, the study recommended that economic vitality be the driver of quality of life. Heightened economic activity will generate the revenues needed to preserve and protect the Estes Park valley's cherished assets and historic values. It will help grow the local workforce and raise household incomes, which will stimulate the economy. Economic development in the Estes Park valley must concentrate primarily on the needs of existing residents and businesses [13].

Land use planning: The Estes Park land use plan covers both the town of Estes Park and the areas outside the town boundary in the Estes Park valley. The town of Estes Park and Larimer County developed a joint jurisdiction agreement for the town of Estes Park to process all development applications in the Estes Park valley, while the Larimer County Commission makes approval decisions for the area outside of Estes Park.

The land use plan has paid special attention to RMNP and sensitive environmental areas. Specifically, the land use plan discourages commercial and accommodation development in areas with environmental constraints. The plan bans or limits development on steep slopes, visually sensitive areas, and areas with significant wildfire hazards, wildlife migration routes and habitats, and flood-prone areas.

The plan also acknowledges a relationship between the community and RMNP. Accommodations and commercial development outside of the core area are generally located on transportation spines that connect to the park. Undeveloped land close to the park is generally proposed to have lower densities, corresponding to natural features and providing a transition to National Park Service lands. The following "Accommodation" land use categories are included in the plan [12]:

- A—Accommodations: This is a district specifically designed for the Estes Park accommodations market. This district could also include some accessory uses (e.g., gift shop, restaurant). There would be locational development considerations (e.g., riverfront, neighborhood) and performance standards for sites and architecture.
- A-1—Accommodations: This district is designed for the development of rental cabins, which are residential in character. Density may range from five to ten units per acre. The size of buildings and number of units per building may be limited.
- CR—Commercial recreation: This district is designed for uses such as campgrounds, miniature golf, stables, etc.

Development guidelines: To more effectively manage de-

velopment and protect and preserve the natural environment of RMNP, detailed and specific development guidelines were developed for key subareas near RMNP, with the following goals and objectives:

- Wetlands preservation;
- Wildlife habitat and migration corridor preservation;
- View corridor preservation;
- Trail connections to RMNP;
- Pedestrian and wildlife access enhancement along rivers;
- Hillside development limitation;
- Architectural control in materials and color;
- Prohibition of new highway convenience commercial uses (e.g., fast food, convenience, gas, etc.);
- Creation of a special sign standard for the Fall River corridor that limits signage to low monument signs consisting of natural materials (wood, stone);
- Limit on proliferation of night lighting;
- Allowance for a clustering or planned unit development approach so that sensitive landforms may be protected.

Transportation: At the peak of the summer season, traffic congestion has been a major issue for RMNP and the town of Estes Park. To reduce congestion and air pollution and provide convenient and environmentally responsible transportation service to the visitors and town residents, the town of Estes Park and RMNP started more than 10 years ago to offer free shuttle service with 63 stops throughout Estes Park and RMNP.

The shuttle service operates daily from June through September with 30- to 60-minute service frequency. The shuttles make it convenient for residents and visitors to leave their vehicles at a lodging facility, at a park-and-ride lot, or at home, and travel around town and RMNP during the busy summer season. The shuttle features real-time tracking. Passengers will be able to determine actual arrival times by visiting the town's website at estes. org/shuttles and entering a five-digit "stop code" for their location.

Place-making and a tourist destination: Over the years, Estes Park has transformed itself from a small gateway town of the RMNP into a premier mountain community and well-known tourist destination. Its downtown main street includes many unique retail shops, arts and crafts galleries, and fine restaurants. The river walk and miles of interconnected bike and pedestrian trails provide a safe and convenient environment for outdoor activities. As it was described by one of the promotional web sites: "Without lodging, dining or shopping inside the national park, a designated Wilderness Area, travelers spend much of their time experiencing the village. With its scenic Riverwalk, charming downtown and many attractions, Estes offers vacationers ample activities. From boating on Lake Estes to soaring up the aerial tram, touring historic sites to savoring sips at local breweries & distilleries, this small mountain town doesn't disappoint. While summer is certainly prime season, there are special events, concerts and festivals throughout the year. In autumn, aspens glow golden, fall festivals commence, and the whole town celebrates

the elk rut, or mating rituals, where the bull elk bugle and spar as they compete for mating rights."

3 Lessons learned and considerations for the Qinba Mountains' green and circular development project

There are many lessons that can be learned from the history and practices of the US NPS and its gateway communities over the last hundred years. The following subsections summarize the key policy directions, practices, and strategies employed by the US NPS and the gateway communities that might be helpful in the development of policy recommendations and action plans by the Qinba Mountains' green development project.

National park system: To establish a unified leadership and to effectively coordinate, manage, and preserve China's natural and cultural resources, a Chinese national park service should be established as soon as possible. This is critical due to the overlapping jurisdictions of various provinces, cities, towns, and villages in the Qinba Mountains region.

Conservation and preservation of natural and cultural resources: As indicated in the US Organic Act of the NPS, the fundamental purpose of the NPS "is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." It is critical that those areas in the Qinba Mountains region with significant value in terms of scenery, natural elements, history, or wildlife be identified, clearly defined, and classified as potentially part of the Chinese national park system.

Law and congressional actions: Since many of the natural and cultural resources are located in multiple cities and provinces, it is important that various laws regulating the China's national park system be drafted and enacted by the National People's Congress of the People's Republic of China as soon as possible for more effective management and preservation of the precious natural and cultural resources in the Qinba Mountains region. For example, since the Yellowstone National Park Act of 1872, which established Yellowstone National Park as the world's first true national park, the US Congress has enacted more than 20 relevant major laws. Important among these are the Organic Act of 1916, which established the US National Park Service, and the Wilderness Act of 1964, which prompted the NPS to carefully examine all park land that potentially qualified as wilderness area and provided additional legal protection for park areas threatened with development.

Collaboration between NPS and gateway communities: Due to the interdependent nature of the national park system and the gateway communities, collaboration and coordination between them in the areas of economic development, land use, transportation, and so on are essential for the success of the national park system and the prosperity of the gateway communities.

Green transportation: Green transportation, such as the free shuttle services provided at Estes Park and RMNP, is an important means of addressing traffic congestion and preserving the natural resources.

Cultural and historic fabric and sense of place in the gateway communities: To be successful and to maintain sustainable tourist activities in the long run, the gateway communities must maintain their cultural and historic fabric and sense of place. Carefully developed land use plans, design standards, and development codes are important tools that help to enhance the local cultural and historic fabric and sense of place.

Heritage and cultural tourism and authenticity: Heritage- and culture-oriented tourism has become an increasing trend in the tourism industry. Given the rich cultural and heritage history in the Qinba Mountains region, the local gateway communities have great potential to explore and develop various cultural and heritage-related tourist activities and attractions.

Destination and diversification: To be successful in the long run and overcome the fluctuation caused by the seasonal nature of the tourist economy, it is important that the gateway communities develop a more diversified economy.

Affordable housing and low-paying seasonal employment: Strategies and actions should be developed to provide more affordable housing for the workers in the low-paying tourist-related jobs.

Attention to the quality of life of local residents: Economic development and quality of life for the local residents are the most important factors for the success of the gateway communities.

Broadband internet: Convenient and easy access to highspeed internet service is an important tool to attract business and talent to a gateway community.

Education: A great education system with suitable schools is another essential element for the long-term success of the gateway communities.

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