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## Shuttle to serenity: The history and impact of Zion National Park's transportation system

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SHUTTLE TO SERENITY: THE HISTORY AND IMPACT OF  
ZION NATIONAL PARK'S TRANSPORTATION SYSTEM

by

Reuben Edward Wadsworth

Bachelor of Science  
Utah State University  
2001

A thesis submitted in partial fulfillment  
of the requirements for the

**Master of Arts Degree in History**  
**Department of History**  
**College of Liberal Arts**

**Graduate College**  
**University of Nevada, Las Vegas**  
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ABSTRACT

**Shuttle to Serenity: The History and Impact of  
Zion National Park's Transportation System**

by

Reuben Edward Wadsworth

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Professor of History  
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*Shuttle to Serenity* focuses on the history of the Zion National Park transportation system's planning, construction and implementation process. It details the unfavorable conditions in pre-shuttle Zion and shows how the shuttle has drastically improved the visitor experience and park environment since operations began in May 2000. The thesis also chronicles the groundbreaking partnership between Springdale, the gateway community, and Zion National Park, which proved vital in the shuttle implementation process. Ultimately, *Shuttle to Serenity* demonstrates that public transportation systems in national parks align the NPS with its mandate to preserve the natural beauty of each park for the enjoyment of future generations, thus welding together the two formerly competing directives of the 1916 Organic Act that established the National Park Service – visitor access and scenic preservation.

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## PREFACE

When I was 15 years old, I asked a friend of mine where his favorite place was. I was surprised at his response. He said it was his bedroom. “What a boring place to choose as your favorite place,” I thought. He then asked me what my favorite place was. I did not have to think twice. “Zion National Park,” I said.

My father is from Hurricane, Utah and my mother is from LaVerkin, Utah – located right next to each other approximately 20 miles from Zion National Park. Growing up in Bountiful, Utah, four and a half hours away from my parents’ southern Utah roots, our family visited southern Utah an average of once every three months, heading to Zion during many of those trips. From a young age, Zion was a sanctuary (as its name means in ancient Hebrew) for me. As a child, I hiked the Weeping Rock, Riverside Walk and Emerald Pools trails all the time. As a teenager, I hiked the park’s longer and more strenuous trails, including the West Rim Trail, the East Rim Trail, the Kolob Arch Trail, and the Zion Narrows. One or more of my best high school friends joined me on all my trips down the park’s backcountry trails. Trips such as those were our favorite pastime.

When I first heard of the proposed Zion National Park transportation system in the mid 1990s, I was skeptical. I thought it might ruin the park experience. As a teenager, I still felt how many opponents of the shuttle felt. I felt it would strip away the independence available behind the wheel of an automobile, being able to go and come as you please without adhering to a schedule. In my early 20s, my attitude changed. After spending two years in Rome, Italy as a church missionary, I realized the value of public transportation. I enjoyed riding the Metro in Rome

and experienced first-hand how nice it was to get from point A to point B without having to fight traffic or find a parking space.

When I returned from Rome, the implementation of the shuttle was in full swing. I followed its developments closely. I even wrote an article about it for the Utah State University Communications Department's online news outlet just before shuttle operations commenced on Memorial Day Weekend in 2000. My main reason for visiting Zion in the summer of 2000 was to ride the shuttle.

When I rode the shuttle for the first time, I was more than pleasantly surprised. Not having to worry about finding a parking spot at desired trailheads was priceless in itself. Zion Canyon, once as congested and noisy as the downtown of any major U.S. city, was now a place of serenity. I enjoyed hearing the gurgle of the Virgin River, hearing the birds chirp, and seeing wild turkeys, something I had never seen in Zion before. I felt like Zion Canyon was a natural place once again. When I left after that first time riding the shuttle, I thought to myself, "Every national park needs one of these."

When I started my Masters program at the University of Nevada, Las Vegas, choosing my thesis topic was easy. When I first proposed my topic to Dr. Hal Rothman, the professor who attracted me to UNLV, he did not hesitate in telling me that it was an excellent choice. I strongly felt that the story of the Zion National Park transportation system was a story that needed telling. When I started the project, that was my main focus – simply telling the story. As I worked on it, telling the story turned into much more, showing how Zion's shuttle system welds the National Park Service's competing mandates of access and preservation

and how national parks and gateway communities can work together as Zion and Springdale did so well. During my research for this thesis, I asked my friends and family what they thought of the shuttle. “I could not imagine Zion without it,” many of them responded. I could not agree more.

Writing this thesis has been a long journey – just over three years – but it has been well worth it. It has deepened my appreciation and love for Zion National Park and national parks in general. It has made me a staunch advocate of public transportation in national parks, something for which I am passionate and about which I want to continue to write.

This project would not have been possible without the help of many people. I thank Dr. Hal Rothman, who sadly passed away in 2007, for his initial encouragement, letting me know that this project was extremely worthwhile. I thank my committee members, Dr. Andy Kirk, chair, and Dr. Raquel Casas and Dr. Eugene Moehring for their patience, feedback and encouragement throughout the entire process.

I thank all of those who allowed me to interview them for the project, especially Patrick Shea of the National Park Service’s Denver Service Center, Zion’s Assistant Chief of Interpretation, Tom Haraden, and former Zion Superintendent, Don Falvey, who all gave me particular insight in areas I knew nothing about. Falvey was so gracious to allow me to take home videos, books, articles and National Park Service memos that aided my research. He also read one of my first drafts to ensure my facts were straight. I greatly appreciate his

help and unwavering support. I also thank Leslie Courtwright, Zion's museum curator, for her help during my research in the Zion archives.

I thank my parents, Carl and Vanda Wadsworth, for their continued encouragement. They provided me feedback throughout the process. Before my thesis defense, my mother read my entire manuscript, finding numerous typos and punctuation errors and suggesting places that needed more detail. My father, who served as a park ranger in the mid 1960s and late 1980s, instilled in me a love for national parks from an early age. During many of our visits in the last three years, he would ask, "How is your thesis going?"

Lastly, I would like to thank my wife, Melissa, for her continued encouragement and feedback. She wrote "finish thesis" on post-it notes and spread them around the house. She wrote me a poem encouraging me in my thesis defense before defending it. I thank her for these and other words and acts that kept me focused and motivated.



## CHAPTER 1

### INTRODUCTION: TRANSPORTATION IN NATIONAL PARKS

The 1980 Yosemite General Management Plan called automobiles the single greatest threat to the enjoyment of the park. “The ultimate goal of the National Park Service (NPS) is to remove all private vehicles from Yosemite Valley,” the plan stated.<sup>1</sup> This Yosemite plan was among the first to recommend the prohibition of private vehicles in national parks, a major turning point in the debate over the relationship between automobiles and national parks that has raged since the early 20<sup>th</sup> century, even before the creation of the National Park Service in 1916.

The only way most early national park visitors could access national parks was by public transportation, including stagecoaches, railroads and buses. The introduction of the automobile in national parks began a downward spiral of overcrowding, ecological degradation, and visitor frustration that left many park managers in a quandary as to how to rectify the situation. Looking for solutions to quell this problem, many parks have begun to revert to public transit again, realizing that it is the best way to relieve traffic congestion, improve the visitor experience, and limit degradation to the park environment. As part of the culmination of this ongoing debate, the Zion National Park Transportation System adopted the motto “Back to the Future.” By reverting to earlier modes of

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<sup>1</sup> Carl Nolte, “Few Favor Scheme to Build Huge Parking Lot in Yosemite Valley,” *The San Francisco Chronicle*, June 22, 1995.

transportation, Zion has solved overcrowding, slowed its ecological degradation and improved the visitor experience.

The Zion Transportation System effectively welds the seemingly contradictory mandates upon which the National Park Service was built, to preserve scenery, but to also provide the opportunity for Americans to enjoy that scenery. The Zion Canyon Shuttle protects scenery by not allowing private vehicles in the most-visited section of Zion National Park, thus markedly decreasing air and noise pollution, damage to plant and animal life, and erosion potential. While preserving scenery, the transportation system also provides greater access. It allows more visitors into the canyon than during the pre-shuttle years, when access was limited to the canyon's approximately 500 available parking spaces. The shuttle has created a more peaceful, relaxed experience for visitors, both in the quiet and order now found in the canyon, since they do not have to jockey for position and drive around and around to obtain an ever-elusive parking space. The serenity Americans seek when they visit a national park is available in Zion National Park thanks to the shuttle system.

A prominent underlying issue in the historic battle over transportation in national parks is access versus preservation, the two competing tenets of the National Park Service's establishing act. "One of the most sensitive issues in wilderness management is whether parks, reserves, and wilderness are for man (anthropocentric) or for nature (biocentric)," Roderick Nash wrote in

*Wilderness and the American Mind.*<sup>2</sup> The eventual first U.S. Forest Service Director, Gifford Pinchot, and early naturalist John Muir sparred over the issue in the 1890s. Pinchot felt wilderness should be a crop harvested for sustainable commercial use while Muir felt wilderness should be preserved primarily for its scenic merits. According to Nash, the National Park Service Act of 1916 attempted to sidestep the issue by declaring the parks' mission to be both preserving nature and facilitating public recreation. Built upon these two competing mandates, the National Park Service has struggled to satisfy both mandates since its inception, leaning toward anthropocentrism until the 1960s when biocentric ideas began to surface.

Early national park leaders, mainly Stephen Mather, the first NPS director, saw parks as tourist resorts more than nature preserves. For example, early in its history, Yosemite featured a golf course near the Ahwahnee Hotel and a ski resort. While the golf course no longer exists, Badger Pass Ski Area is still in business, despite it being at odds with the National Park Service's mission to preserve the parks so they would "be unimpaired for the enjoyment of future generations."<sup>3</sup> The 1963 Leopold Report, researched by a group of scientists led by A. Starker Leopold, son of famed environmentalist Aldo Leopold, a founding member of the Wilderness Society, concluded that parks should be maintained in nearly the same condition as when the white man first visited them. After years of environmental inaction by park management, environmentalists applauded the

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<sup>2</sup> Roderick Nash, *Wilderness and the American Mind*, 3<sup>rd</sup> ed. (New Haven: Yale University Press, 2001), 325.

<sup>3</sup> National Park Service Organic Act of 1916, 39 Stat. F35 (1916).

report. The Centennial Report of 1972, a follow-up to the Leopold Report, did not specifically suggest the termination of motorized access in national parks but it urged that in the 21st century private automobiles, hotels, and restaurants should give way to backpacking and camping.

Automobiles have been the most important technology influencing the relationship between Americans and national parks but have not been the only threat degrading national parks and wilderness in general. After World War II, other motorized vehicles started shaping wilderness politics as well. In his book *Driven Wild*, Paul S. Sutter explains:

Other motorized forms of transport, from airplanes to off-road vehicles to snowmobiles and jet skis, emerged as new threats to the solitude sought by wilderness users. Importantly, these devices have provided the same sort of sport and mechanized intimacy with the landscape that early motorists had prized, and they have opened more of the landscape (and waterfront) to motorized travel.<sup>4</sup>

Just as the emergence of the automobile “democratized” travel to the national parks in the 1920s, making it easier for the average American to visit national parks and enjoy a wilderness experience, so have ATVs, jet skis, and snowmobiles today.

While such drastic changes as eliminating hotels and restaurants are not part of national park master plans, eliminating automobiles is an initiative regularly discussed in America’s crown jewel national parks, including Yosemite and Grand Canyon. Transit systems servicing national parks have become more widespread as the tremendous increase in visitation – coupled with the fact that

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<sup>4</sup> Paul S. Sutter, *Driven Wild: How the Fight Against Automobiles Launched the Modern Wilderness Movement* (Seattle: University of Washington Press, 2002), 257.

most visitors arrive by private car – is having a profound impact on park resources and on the visitor experience. The Zion Transportation System’s goals are to improve the visitor experience just as much as to eliminate automobile traffic. As the first national park in the lower 48 states to implement a mandatory shuttle system, Zion has established itself as an example for other parks to follow to relieve automobile congestion that began nearly a century ago.

### Early National Park Transportation Issues

Early Yosemite managers saw the private automobile as a threat, but not for the same reasons as today’s NPS management. Early park personnel’s reasons for outlawing the automobile are trivial compared to the grand-scale issues current Yosemite administrators face, such as traffic congestion and air pollution. The first car to enter Yosemite, a Stanley Steamer specially designed to withstand the rigors of mountain driving, arrived in July 1900. Soon after its entrance, park officials banned automobiles, saying the new contraptions frightened horses and disturbed tourists. At the time, such precautions were probably unnecessary because the park contained only 20 miles of unpaved government-built roads and few motorists possessed the daring or machinery to make the trip. Despite bad driving conditions, park officials lifted the ban on automobile travel in 1913. The change in policy satisfied the demands of motorists and created a new source of income in the form of entrance fees. However, conditions for driving in Yosemite remained far from satisfactory for some time and few drivers were willing to pay

the \$8 entrance fee or risk damaging their expensive machines.<sup>5</sup> Rules governing automobiles were stringent at first. Park management required that early motorists chain their cars to logs and turn their keys in at the park office.<sup>6</sup>

Many observers rejoiced at the inclusion of automobiles in Yosemite. Others, such as Great Britain's Lord James Bryce, had reservations. In 1913 Bryce warned park officials, who were planning to lift the early ban on automobile travel, of the danger the 'horseless carriages' would bring to Yosemite Valley. "If Adam had known what harm the serpent was going to work," Bryce noted, "he would have tried to prevent him from finding lodgment in Eden; and if you were to realize what the result of the automobile will be in that incomparable valley, you will keep it out."<sup>7</sup> Few people, however, had Bryce's foresight. For the most part, even staunch preservationists saw the car as a necessary evil that would generate public interest in Yosemite, protecting it from exploitation.<sup>8</sup>

True to Bryce's decree, park managers began to see the dangers of automobiles soon after their admission to the park. Linda Greene, in her Historical Resource Study of Yosemite, explained:

Trampled grass and shrubbery, scattered litter, traffic congestion, air pollution, the lack of adequate traffic control, overcrowded facilities, and unhappy visitors finally forced park officials to realize they needed a management plan for growth and development to ensure maximum

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<sup>5</sup> Anne F. Hyde. "From Stagecoach to Packard Twin Six: Yosemite and the Changing Face of Tourism, 1880-1930." *California History* 69, no. 2 (1990): 164.

<sup>6</sup> *Ibid.*, 163.

<sup>7</sup> *Ibid.*, 165.

<sup>8</sup> *Ibid.*, 165-166.

enjoyment of the area with minimum damage to the resources.<sup>9</sup>

Unfortunately, it took Yosemite park managers more than sixty years to realize that alternative transportation would help alleviate the problem of traffic congestion and “ensure maximum enjoyment” with minimum damage to natural resources.

As early as 1916, automobile passengers exceeded train passengers in Yosemite National Park. By 1917, more visitors chose to drive into national parks than to utilize any other form of transportation. Early NPS leaders encouraged automobility and built more roads to accommodate them. Driving a car to Yosemite gave travelers a sense of freedom and personal choice that riding a train or stagecoach could not provide. One observer said the automobile brought a renaissance of the outdoors. With the more egalitarian form of travel provided by the automobile, the middle class flocked to national parks and brought their camping equipment with them to avoid the more expensive hotel lodgings. Another more pessimistic observer noted that because of increased development and automobile traffic, “nothing in America is less wild than the floor of Yosemite Valley. The floor of Yosemite is an amusement park, as crowded a city as New York’s Central Park.”<sup>10</sup>

According to National Park Service historian David Louter in his book *Windshield Wilderness*, the Park Service embraced the harmony of automobiles and nature as one of its basic management principles. Throughout the 1920s and

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<sup>9</sup> Linda W. Greene, *Yosemite, The Park and Its Resources: A History of the Discovery, Management and Physical Development of Yosemite National Park, California*, 3 vols., (Denver, CO: National Park Service, 1987), 516.

<sup>10</sup> Hyde, 161-169.

1930s, the NPS shaped parks for automobiles and their drivers, creating idealized representations of the natural world in which technology, symbolized by the automobile, could produce something positive – middle ground between human and nonhuman worlds. Early park leaders, especially first NPS Director Stephen Mather, thought of parks as wilderness reserves that had a human presence – wilderness “was a visual experience made possible or enhanced by automobiles and the roads they traveled,” Louter said.<sup>11</sup>

Sensitive to potential objections that parks would be “gridironed” with roads, Mather insisted that large sections of each park would be kept in a natural wilderness state without piercing feeder roads, and be accessible only by trails by the horseback rider or hiker.<sup>12</sup> Thomas Martin, General Manager of the Ranier National Park Company, said, “the spirit of the nation calls for majority rule” and since the majority of visitors drove to national parks, it was only logical that the government build roads in national parks to accommodate them.<sup>13</sup> Roads produced a national park model that was attractive to most modern Americans. It gave them a sense that their presence in nature was not an artificial intrusion.<sup>14</sup>

Making parks accessible to automobiles was central in Mather’s plans for the national parks. Mather envisioned that roads would not divide parks, but transform them into singular landscapes of wild beauty.<sup>15</sup> He thought it possible

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<sup>11</sup> David Louter, *Windshield Wilderness: Cars, Roads, and Nature in Washington’s National Parks* (Seattle: University of Washington Press, 2006), 166.

<sup>12</sup> Sutter, 121.

<sup>13</sup> Louter, 56.

<sup>14</sup> *Ibid.*, 13.

<sup>15</sup> *Ibid.*, 5.



to preserve parks and modify them for automobiles and still consider them wild – thinking of them not as reservoirs of pristine nature, but as historical creations. The ability to perceive national parks as wild despite changes wrought within them displays a romantic vision of nature – sort of a widespread cultural myopia.<sup>16</sup> “As the parks became tourist attractions, nature came to be seen as a separate and faraway locale packaged up for human consumption,” Ted Steinberg wrote in *Down to Earth*.<sup>17</sup>

The NPS relied on landscape architects and engineers to design roads that would conform to the landscape, provide scenic views, and appear anchored to the earth through the principles of rustic architecture. They sought to blend roads into the natural landscape, making them look as if they belonged there. This helped parks become:

. . . . authentic representations of the natural world to a mobile audience accustomed to viewing nature through a windshield. Parks and the wild nature they protected were products of human design; they were created for the motor age.<sup>18</sup>

With this vision in mind, Mather started the NPS Landscape Engineering Department in 1918, responsible for “naturalizing” roads, trails and tourist developments, and for restoring areas damaged by overuse, marking the beginning of heavy reliance on landscape architects in mediating between nature and increased automobile visitation.<sup>19</sup>

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<sup>16</sup> Louter, 8-9.

<sup>17</sup> Ted Steinberg, *Down to Earth: Nature’s Role in American History* (New York: Oxford University Press, 2002), 242.

<sup>18</sup> Louter, 167.

<sup>19</sup> Sutter, 110.

To Mather, accommodating automobiles and their drivers became a priority in national parks. Yosemite, he felt, would be an excellent place to start. Yosemite was especially attractive to motorists because it was the only major western park located within easy driving distance of two major urban centers – San Francisco and Los Angeles. Mather sought to build a constituency that would support and frequent national parks, which could, as a result, help increase appropriations to the fledgling bureau. Mather welcomed automobiles into parks and was delighted when the new form of transportation spurred more tourists to visit the preserves. “There never could be too many tourists for Stephen Mather,” wrote his young protégé and later successor, Horace Albright. “He wanted as many as possible to enjoy his ‘treasures.’”<sup>20</sup>

Albright held a different stance on automobiles and road building than his predecessor. Albright foresaw the explosion in visitation the automobile would create and worried that too many private vehicles would overwhelm parks in the future. Unfortunately, Albright admitted, no one quarreled with Mather on the topic because “all of us loyally followed Mather’s philosophy of encouraging tourists, no matter how they got to the parks.”<sup>21</sup> While Albright served as the superintendent of Yellowstone National Park, he stressed the improvement of existing roads, but did not encourage the construction of more roads hoping tourists would traipse through the vast majority of the park on horseback or foot. Mather himself preferred to see the parks on foot or horseback but felt each park

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<sup>20</sup> Horace Albright and Marian Albright Schenk, *Creating the National Park Service: The Missing Years* (Norman: University of Oklahoma Press, 1999), 294.

<sup>21</sup> *Ibid.*

should have one good highway that would allow people to get deep enough – or through the park – so they could get a taste of wilderness. As Park Service Director, Albright made improvements of existing roads and trails a priority. As he had in Yellowstone, he strongly resisted building new roads. For instance, he opposed a road through the summit lands of the Great Smoky Mountains similar to Skyline Drive in Shenandoah National Park in Virginia, saying it would be too destructive to the scenic mountains.<sup>22</sup>

The national park road and visitor facility building boom of the 1920s and 1930s, aided by government agencies such as the Civilian Conservation Corps and Public Works Administration, gave way to periods of park neglect due to decreased budgets and the discontinuation of those agencies. By the late 1940s, a ruinous combination of low budgets and unprecedented numbers of visitors had depreciated the national park experience for millions. By 1950, 99 percent of visitors to the national park system were arriving in their own cars. Finding room to drive and park millions of automobiles became a chronic and worsening problem in the country's most popular national parks.<sup>23</sup>

### Railroads and National Parks

Early on, railroads were the primary method of transportation to national parks. Railroad companies encouraged the designation of parks and were the allies of preservationists. The railroads sought more passengers and in turn, more

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<sup>22</sup> Horace Albright, *The Birth of the National Park Service: The Founding Years, 1913-1933* (Salt Lake City: Howe Brothers, 1985), 195 & 264-269.

<sup>23</sup> Ethan Carr, *Mission 66: Modernism and the National Park Dilemma* (Amherst: University of Massachusetts Press, 2007), 4-5.

profit. Though not driven by preservationist aims, railroads had a hand in raising ecological awareness among their passengers with striking, sometimes full-color advertisements in periodicals nationwide. Railroads played a crucial role in the establishment, protection and improvement of national parks. The Northern Pacific was at the forefront of efforts to designate Yellowstone a national park. “Commerce could serve the cause of conservation by bringing visitors to a site worthy of preservation,” Northern Pacific executive Frederick Billings said.<sup>24</sup>

Other rail lines played similar roles, such as the Great Northern’s vociferous campaign to create Glacier National Park. Railroads unwaveringly supported legislation creating the National Park Service in 1916, looking forward to working with one government agency committed to promoting national parks. Stephen Mather, the first director of the Park Service, teamed with railroads to promote the national parks. The railroads rarely portrayed environmental consciousness in their guidebooks, but dependence on unspoiled scenery to sell national parks as a destination restrained more extractive aims, such as logging and mining. Railroad support of Yellowstone as a breeding ground for big game heightened awareness that the West was a refuge for wildlife.<sup>25</sup>

The story of the Yosemite Valley Railroad (YVRR) is a microcosm of national parks’ relationship with the railroad. From 1907 to 1945, the YVRR ferried visitors to the western border of the park from the gateway community of El Portal. The YVRR ran a profitable passenger and auto ferry business until the

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<sup>24</sup> Steinberg, 148.

<sup>25</sup> Alfred Runte, *Trains of Discovery: Western Railroads and the National Parks* (Flagstaff, AZ: Northland Press, 1984), 24, 29 & 49.

“All-Year Highway” from Merced to El Portal was completed in 1926. After the road’s completion, the YVRR had to lower rates to try to compete and eventually failed, largely because of the encroachment of the automobile.<sup>26</sup> The closing of the Yosemite Valley Railroad gave the NPS no choice but to accommodate more automobiles to please the surmounting hoard of tourists. Building roads and facilities to handle cars and campers encouraged swarms of people to visit Yosemite and increase support for park appropriations, but at the same time set in motion overcrowding and automobile blight in the valley by the 1960s, when rail transportation to national parks and the NPS alliance with the railroads had nearly dimmed completely.

#### Mission 66 and the Rise of Environmental Consciousness

Mission 66, an ambitious program of the 1950s and 1960s that built infrastructure, visitor facilities, and thousands of miles of roads and trails national parks still rely on today, proved a springboard to environmental consciousness. The impetus for Mission 66 was the deteriorating condition of America’s national parks, which had received little attention during World War II and were experiencing unprecedented visitation. By the early 1950s, crowded roads, jammed parking lots, inadequate visitor facilities, and poor maintenance were undermining almost every aspect of the park visitors’ experience. In the early 1950s, Travel Magazine warned potential national park tourists to prepare themselves for almost anything in the way of personal discomfort, annoyance and

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<sup>26</sup> Greene, 513.

even danger when driving in national parks. Facing the realities of postwar crisis, a growing group of advocates insisted that automotive tourism had emerged as the greatest threat of all.<sup>27</sup>

Opposition to Mission 66 catalyzed the modern environmental movement. A profound disagreement over the purposes of America's national parks was at the heart of the conflict. Conrad Wirth, NPS Director during Mission 66, felt his actions kept with the park service's original mission, especially as interpreted by the earliest NPS leaders, who were most motivated by scenic enjoyment. Far-ranging Mission 66 construction projects, particularly new roads and road improvements, were seen as a direct threat to park lands, not only because they would alter scenic landscapes but because they would greatly increase public access to them.<sup>28</sup> Ethan Carr, in his book *Mission 66: Modernism and the National Park Dilemma* contends that "roads were too important to be left to the engineers; they defined the overall pattern of public use and had enormous implications for how that use would affect parks."<sup>29</sup> "Each park needed at least one great automotive road providing access to significant destinations and a meaningful experience with the landscape," Carr further explains, "but the parks could not be 'gridironed' with highways. A carefully planned road through the park could strike the necessary compromise between automotive access and landscape preservation."<sup>30</sup>

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<sup>27</sup> Carr, ix, 56 & 337.

<sup>28</sup> *Ibid.*, ix.

<sup>29</sup> *Ibid.*, 255.

<sup>30</sup> *Ibid.*, 257.

Mission 66 led the Park Service into bitter controversy as the postwar environmentalism movement began to exert its strength. Mission 66 created genuine concern that the NPS was overdeveloping parks while failing to take other steps to preserve wilderness. Environmental advocates argued that parks should be “pristine wilderness whose inherent value was threatened by alteration.”<sup>31</sup> Wirth insisted that Mission 66 was a conservation program, not a development program, designed to ultimately preserve and not destroy wilderness. Mission 66 came to symbolize, fairly or not, a willingness to sacrifice the integrity of park ecosystems for the sake of enhancing the merely superficial appreciation of scenery by crowds of people in automobiles.<sup>32</sup>

#### Shifting Attitudes Towards Automobiles in National Parks

Louter’s *Windshield Wilderness* illustrates the succession of feelings toward automobiles and national parks from the National Park Service’s inception in 1916 to the present through case studies of three national parks in the state of Washington. His first case study is Mount Rainier, established in 1899, which exhibited the National Park Service’s early road-building tendency. Located near Seattle and Tacoma, Mount Rainier was a popular location for urban dwellers to enjoy nature. As such, park leaders wanted to build a road all the way around Mount Rainier to provide visitors with varying views of the majestic mountain. Louter’s Mount Rainier case study demonstrates that in its early years, the NPS

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<sup>31</sup> Mark Barringer, *Selling Yellowstone: Capitalism and the Construction of Nature* (Lawrence: University Press of Kansas, 2002), 68-69, 147.

<sup>32</sup> Carr, 13-14.

wanted to build roads into the park's interior for maximum enjoyment of the motoring public.

Louter's next case study, Olympic National Park, established in 1938, is an example of the shifting values towards roads and national parks in the mid 20<sup>th</sup> century. Roads influenced the creation of Olympic National Park, but road building in parks, including parkways, had reached its peak and had become an anathema to wilderness preservation.<sup>33</sup> In Olympic, the Park Service built roads to the fringes of the park, giving motorists the illusion that they were in the park interior. The Hurricane Ridge Road skirted the park's boundary, but provided a superb view into the park, an example to national park visitors of "unspoiled wilderness." By doing this, the agency retained the illusion that cars could enter national parks without defiling them.<sup>34</sup>

Strapped with the ideal that wilderness was a scenic experience viewed through a windshield, in the 1960s the National Park Service had to convince the public (most of whom would never venture into the backcountry) the significance of wilderness most park visitors would never see.<sup>35</sup> When North Cascades National Park entered the NPS system in 1968 (four years after the passage of the Wilderness Act), wilderness protection was the central reason for establishing the park. A product of the postwar environmental movement, North Cascades seemed to be the final stage in literally pushing cars to the margins of park management.<sup>36</sup> North Cascades became a new kind of national park – an essentially roadless one.

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<sup>33</sup> Louter, 167.

<sup>34</sup> Ibid.

<sup>35</sup> Ibid., 8-9.

<sup>36</sup> Ibid., 167.



Instead of building roads to the park border, like in Olympic, the Park Service designated recreation areas surrounding the park as buffer zones. The recreation areas include roads and roadside interpretive materials conveying the wilderness mission of North Cascades, a national park with no roads and one most motorists passing through the recreation areas will never see.<sup>37</sup> North Cascades provides an example of how other national parks would be without roads – only the most adventurous would ever see them.

### First Public Transportation in National Parks

The idea of alternative transportation systems in national parks started gaining disciples in the late 1960s. At that time, some NPS planners realized public transportation would be a significant means of easing the environmental degradation caused by private automobiles. Park Service brass considered ways to curtail the use of cars in parks, envisioning a time when some form of public transportation would convey the majority of visitors through the reserves.<sup>38</sup> For example, in the 1960s, NPS planners proposed a mass transit system to serve Yellowstone from gateway towns outside the park.<sup>39</sup> In 1968, Luther Carter advocated a monorail and light rail transit system for Yellowstone, stating, “This elevated system [would allow] sweeping scenic views, while itself intruding far less conspicuously upon the landscape than on the road it has replaced.”<sup>40</sup> One

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<sup>37</sup> Louter, xi-xii.

<sup>38</sup> *Ibid.*, 169.

<sup>39</sup> *Ibid.*, 223.

<sup>40</sup> Luther J. Carter, “National Parks: Traffic Jams Turn Attention to Roads,” *Science*, August 23, 1968, 771.

transportation advocate, William S. Rosenberg, deputy head of the NPS design and construction office at the time, figured the cost of such systems, on a per-passenger basis, would only be a little more than that of the automobile-road system. The principal problem holding back such an ambitious plan would be securing the funding, he said.<sup>41</sup>

Yosemite began operating a shuttle in the early 1970s. In response to increased traffic congestion and lack of adequate parking space, Yosemite park officials closed the eastern third of Yosemite Valley to auto traffic. Subject to skepticism at first, Yosemite's shuttle service became popular once tourists realized the convenience it afforded and the congestion it eliminated. The positive reception of the shuttle has led to advocates pushing for the revival of the Yosemite Valley Railroad. Alaska's Denali National Park, was another national park to implement public transportation in the early 1970s. Denali began a bus system in 1972, which prohibited automobiles beyond a designated milepost on the road entering the park's interior.

#### Traffic Congestion and Alternative Transportation

Cars have dominated the national park experience since the Park Service's birth in 1916, becoming the main way visitors see parks. Cars brought parks closer to the general public and changed visitors' conceptual view of parks, making them think it possible to harmonize man and machine in the nation's scenic treasures. Many national park visitors resist alternate forms of

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<sup>41</sup> Carter, 772.

transportation because they would rather enjoy the scenery behind the wheels of their cars. They enjoy the independence and convenience of cars and not having to adhere to set schedules. For example, when surveyed about the possibility of eliminating cars within Yosemite Valley, one grandfather said, “If I had to leave my car outside the park and take a bus, I’d just say, forget it. I wouldn’t come. And I would be depriving my grandchildren here of this wonderful experience.”<sup>42</sup>

The Organic Act’s definition of national parks as both pleasuring grounds and natural preserves has always been a contradiction in terms. No better example reflects these dissenting goals than the construction of roads in national parks. The convenient transportation provided by automobiles generated more support for scenic preservation, but, on the other hand, the increased traffic threatened national parks as much as it insured their support. George Lorimer, former editor of *the Saturday Evening Post*, said roads and other improvements in national parks came so fast that the parks started to lose their attraction to the wilderness lover. J. Horace McFarland, an outspoken preservationist, countered, saying that without cars, there might not be any national parks.<sup>43</sup> The prerequisite for public support of the national park system was development in the form of lodging, stores and, of course, roads. Such expansion inevitably compromised the national park’s role as a protector of the environment.

Richard Sellars, in his book *Preserving Nature in the National Parks*, contends that increased automobile traffic in national parks mars the overall

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<sup>42</sup> Carl Nolte, “How 21<sup>st</sup> Century Tourists Might See Care-Free Yosemite,” *Th San Francisco Chronicle*, November 10, 1997.

<sup>43</sup> Alfred Runte, *National Parks: The American Experience* (Lincoln: University of Nebraska Press, 1984), 155-159.

visitor experience by precipitating boisterous crowds and law enforcement problems.<sup>44</sup> National parks, often considered bastions of pristine wilderness and places to enjoy nature, are subject to the same vices that plague our modern cities, such as crime, pollution, sprawl and overcrowding due in part to their emphasis on visitor accommodation through the construction of roads and the enlargement of parking lots. Louter stated that cars, not people, are the national parks' greatest problem. As a result, the NPS has raised park entrance fees to maintain park roads and other facilities used by cars. The Agency has also explored alternative means of transportation to attempt to curb the use of cars in parks.<sup>45</sup>

In contrast to adding more pavement to solve traffic congestion, public transportation in national parks solves two problems. It facilitates visitor access and also decreases degradation to the park environment. Public transit in national parks is the best way to achieve middle ground in park management, catering to both access and preservation and allowing science to play a role in administrative decisions.

#### Modern Mass Transit in National Parks

In 1974, Yellowstone park management rejected a master plan to reduce automobile traffic that would have encouraged visitors to leave their cars at the park gates, arguing that such a measure would be objectionable to residents of gateway communities because it would spawn more crowding and noise.

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<sup>44</sup> Richard Sellars, *Preserving Nature in the National Parks: A History* (New Haven: Yale University Press, 1997), 2.

<sup>45</sup> Louter, 169.

Interestingly, in sharp contrast to the 1974 Yellowstone decision, the 1980 Yosemite General Management Plan recommended the elimination of automobiles from the most-visited area of America's keystone national park. Since then, the issue has been proposed and debated, but never implemented. After years of congestion, park officials have realized that automobiles, while providing easy access to national parks, detract from the visitor experience, encroach upon wildlife and decrease air quality, among other ills. Eliminating cars from Yosemite Valley is still in the Park Service's plan for the park, but if implemented, it will come slowly.

A visitor study conducted in Great Smoky Mountains National Park in the summer and fall of 1996 showed that more visitors felt crowded by cars than by people. For some, the annual trip to a favorite national park is beginning to look and feel more like a daily commute to work. Overcrowding in national parks results in a variety of traffic related problems, including congestion, noise and air pollution, overflow parking, hazardous conditions for bicyclists and pedestrians, and damage to natural and cultural resources. The Organic Act stated that the most important reason for visiting national parks is enjoyment. Americans love their national parks, and keeping them away, even in the face of overcrowding, should be one of the last resorts.<sup>46</sup>

“What we do with transportation has more to do with sustaining the quality of our national parks than almost any other issue,” wrote Bob O'Brien, in his book

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<sup>46</sup> Vanessa C. Morel, “Alternative Transportation in Cades Cove: Preserving the Past by Planning for the Future” (Masters thesis, Duke University, 2004), 1-8.

*Our National Parks and the Search for Sustainability*.<sup>47</sup> O'Brien argues that when park roads become crowded, urban visitors "will feel the contradiction between the surrounding wilderness and the jammed roadway and will resent rather than appreciate this type of road."<sup>48</sup> "An important method of allowing more people to see the national parks with no loss in environmental quality is to replace private with public transportation," O'Brien concluded.<sup>49</sup>

The importance of transportation planning to protect park resources and improve the visitor experience has not been lost on the National Park Service. In 1999, the agency published a Transportation Planning Guidebook, stating in its introduction: "transportation is an integral, defining feature of the national park experience, and a means by which the park mission of protecting resources for the enjoyment of future generations can be realized."<sup>50</sup> The guidebook's introduction strongly advocates finding ways to ease auto congestion in national parks. "Alternative modes of transportation must be explored to provide access and a quality visitor experience without adversely impacting resources," it further explains.<sup>51</sup> In response to the growing transportation challenges facing national parks, the NPS formed the Alternative Transportation Program (ATP). The mission of the NPS ATP program is to: "Preserve and protect resources while

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<sup>47</sup> Bob O'Brien, *Our National Parks and the Search for Sustainability* (Austin: University of Texas Press, 1999), 125.

<sup>48</sup> *Ibid.*, 126.

<sup>49</sup> *Ibid.*, 211.

<sup>50</sup> National Park Service, *Transportation Planning Guidebook* (Washington: Government Printing Office, 1999), i.

<sup>51</sup> Morel., i.

providing safe and enjoyable access to and within NPS units by using sustainable, appropriate and integrated transportation solutions”<sup>52</sup>

In addition, Section 3039 of the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) requires the Secretary of Transportation, in coordination with the Secretary of the Interior, to comprehensively study alternative transportation needs in national parks and related Federal Lands.” According to the *Federal Lands Alternative Transportation Systems Study Congressional Report*, implementing transit on federally managed lands can help achieve the following goals:

1. relieve traffic congestion and parking shortages
2. enhance visitor mobility and accessibility
3. preserve sensitive natural, cultural, and historic resources
4. provide improved interpretation, education and visitor information

services

5. reduce pollution
6. improve economic development opportunities for gateway communities.<sup>53</sup>

Members of Congress are well aware of the seriousness of transportation issues in national parks. In February 2004, the Senate Banking, Housing, and Urban Affairs Committee approved Senator Paul S. Sarbanes’ (D-MD) *Transit in*

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<sup>52</sup> Morel, 1.

<sup>53</sup> USDOT, Volpe National Transportation Systems Center, Partnering for Success: Techniques for Working with Partners to Plan for Alternative Transportation in National Park Service Units. National Park Service Alternative Transportation Program, ONLINE, 2003, Available: <http://www.nps.gov/transportation/web/altnew/partstudy050903.pdf> , quoted in Morel, 9.

*Parks Act* (2003). The bill hoped to ease traffic congestion and improve mobility and accessibility in national parks and wildlife refuges, while helping to protect natural resources. The legislation would have authorized \$25 million annually over the next five years for a variety of transit projects, including light rail or clean fuel bus projects, pedestrian and bike paths, or park waterway access, within or adjacent to lands administered by the National Park Service. Project selection would not have been limited to major national parks such as the Grand Canyon or Yellowstone. Senator Lamar Alexander (R-TN) was the only republican sponsor of the legislation. The bill never became law.

Despite not passing this act, increased congressional awareness of national parks' need for transportation alternatives is extremely encouraging. There are still many hurdles to jump, mainly budgetary, to spread the transportation initiative throughout the National Park Service, but the establishment of the agency's alternative transportation program and the implementation of the Zion shuttle are two major strides forward. Zion has established itself as the example to follow, not only within the national park service, but for other entities as well. Administrators from other national parks, civic leaders, and top brass of other organizations regularly visit Zion to see how the park transportation system works and how they can implement something similar in their locations.

Zion's shuttle system has proven the value of mass-transit in national parks. The shuttle system has decreased noise pollution and limited damage to plant life. The shuttle had an immediate positive effect on the landscape and litter along the roadways. The Zion shuttle buses, powered by clean burning propane,



have helped reduce air pollution in the park. Today in Zion, there are no lines of cars and other vehicles parking on the vegetation or on road shoulders. The shuttle has vastly improved the visitor experience and at the same time restored the landscape to something more approximating its original condition, as the Leopold Report advocated. It has increased the chance for visitors to view wildlife in the canyon and encouraged more socialization and better ecological awareness among visitors. Furthermore, Zion's shuttle system has shown that gateway communities and national parks can work together, contrary to prior belief, to make parks and their surrounding areas more attractive to every visitor.

## CHAPTER 2

### PRE-SHUTTLE ZION

Construction commenced on what is now the Zion Canyon Scenic Drive the same year the Park Service was established. Little did those responsible for the new road realize that what they were building would create a conundrum for future park managers and pit the National Park Service's mandates of visitor access and scenic preservation against each other. In September 1916, Utah Senator Reed Smoot was instrumental in earmarking \$15,000 from the first Federal Aid Road Act to build a road up the canyon. Construction began on November 1, 1916 and by the summer of 1917, a "passable road" led into Zion Canyon.<sup>1</sup> It followed an earlier Mormon wagon route that extended into the canyon. The wagon route followed an earlier Indian trail used centuries before Europeans set foot in the region.<sup>2</sup>

By 1923, the road's terminus was the Grotto Campground. The road reached the Temple of Sinawava in 1925, which is the end of the route today.<sup>3</sup> After these improvements, the road became known as the "Government Road." The Park Service upgraded the road in 1932 to become the "Floor of the Valley Road."<sup>4</sup> Even at the road's inception, it faced problems, such as eliminating grazing in the canyon. The road also faced the challenge of keeping narrow-tired wagons from

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<sup>1</sup> Angus M. Woodberry, *A History of Southern Utah and Its National Parks*, Rev. ed. (Self published, 1950), 196-199.

<sup>2</sup> National Park Service, *Canyon Transportation Plan Environmental Assessment, Zion National Park* (Washington: Government Printing Office, 1997), 41.

<sup>3</sup> Woodberry, 204-206.

<sup>4</sup> National Park Service, *Environmental Assessment*, 41.

using it. Perhaps a precursor of future developments, local residents cooperated. Both prohibited activities soon ceased, causing shrubs and wildflowers to return to the canyon floor. Even Horace Albright, the NPS's assistant director at the time, remarked that the locals fully cooperated.<sup>5</sup> Perhaps this full cooperation set a precedent for the collaboration between park and town that would take place nearly seven decades later.

The shuttle system in Zion is new to most visitors, but is not an original idea in the park. Buses were the only way to see Zion during the 1920s. In the early days of Zion tourism, visitors rode buses to the park from Cedar City, Utah when a thirty-five mile railroad spur off the main line from the town of Lund opened in 1923. These long buses featured convertible tops, which provided for much better viewing of the park's spectacular scenery. During 1923 and 1924, the Union Pacific and the Utah Parks Company, its subsidiary, spent over \$1.7 million for improvements directly or indirectly related to the development of the park. The company built a bus garage in Cedar City to store and maintain forty 11-passenger buses purchased to take tourists on a tour of what emerged as "The Grand Circle," which included Bryce Canyon, Cedar Breaks, the Grand Canyon, Pipe Spring and Zion.<sup>6</sup>

After the completion of the railroad spur and initiation of the bus tours, the park was not prepared to accommodate the rising numbers of visitors. To satisfy the demand, the Union Pacific built Zion Lodge in 1925, designed by renowned

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<sup>5</sup> Woodberry, 200.

<sup>6</sup> Wayne K. Hinton, "The Development of Zion National Park," Utah Historical Quarterly, Vol. 68: Fall 2000.

architect Gilbert Stanley Underwood. The company also built lodges in Grand Canyon and Bryce Canyon, with Mather paving the way with the necessary legislation.<sup>7</sup> Access to Zion further increased when, in 1930, a highway extended to Zion's east side and the town of Mt. Carmel thanks to the blasting of the 1.1-mile Zion-Mt. Carmel Tunnel. Bus tours eventually gave way to the independence of the automobile and over the years, more tourist accommodations sprouted in the town of Springdale, the community adjacent to the park's south entrance.

By the late 1970s, traffic in the summer months grew out of control and provided park management the impetus to research alternative transportation. Much like Yosemite Park managers' realizations about the benefits of eliminating cars and the advantages of alternative transportation, Zion park managers saw the need for a shuttle system to alleviate vehicle congestion in Zion Canyon. They became keenly aware of its negative impact to both the visitor experience and to park operations. Park staff ended up having to become traffic coordinators, said Patrick Shea, Zion transportation project coordinator at the Denver Service Center. "They became enforcers of parking policy or roadside activities more so than other responsibilities."<sup>8</sup>

The 1975 Interpretive Prospectus was the first time an official National Park Service document mentioned a public transit system for Zion Canyon. That prospectus advocated a "transportation system designed to provide vastly

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<sup>7</sup> Ethan Carr, *Wilderness By Design: Landscape Architecture and the National Park Service* (Lincoln: University of Nebraska Press, 1999), 141.

<sup>8</sup> Patrick Shea, (Transportation Technical Specialist and Project Manager, Denver Service Center), Telephone interview with author, September 6, 2006.

improved viewing opportunities and to motivate more walking.”<sup>9</sup> The 1977 General Management Plan encouraged the same concept. It stated, “As numbers of visitors increase, the need for better systems to transport them through the canyon area becomes more critical, in order to minimize their ecological impact.”<sup>10</sup> “Unless the present numbers of visitors can be properly channeled and/or dispersed, their impact could ultimately threaten the fragile canyon resources, which this unique national park was set aside to preserve.”<sup>11</sup> The 1977 plan envisioned a transportation system much like the one in place today, but without the construction of a visitor center and a transportation hub. It even recommended that the feasibility of connecting the town of Springdale to the overall transportation system “should be included in an interpretive transportation study.”<sup>12</sup> Interestingly, the 1977 plan prescribed a voluntary shuttle system, saying its main objective was to “lure drivers from their cars” by offering frequent service and not charging passengers to ride. Other necessary aspects of the transportation system the document envisioned were quiet, attractive buses with windows suitable for scenic viewing and simple and rapid embarking and debarking.<sup>13</sup>

“Visitors will be much more likely to appreciate the grandeur and beauty of the park if they are able to view Zion Canyon and the surrounding areas

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<sup>9</sup> National Park Service, *Zion National Park Interpretive Plan* (Washington: Government Printing Office, 1996), 16.

<sup>10</sup> National Park Service, *Master Plan, Zion National Park* (Washington: Government Printing Office, 1977), 8.

<sup>11</sup> National Park Service, *Master Plan*, 16.

<sup>12</sup> *Ibid.*, 12.

<sup>13</sup> *Ibid.*, 14.

unhampered by automobile congestion and driving problems,” the 1977 Master Plan explained.<sup>14</sup> Along with the transportation system, the plan recommended an upgraded and expanded canyon trail system to accommodate hikers and bikers. The document concluded that these two transportation improvements would provide for a more meaningful visitor experience. The plan explained park personnel and publications would encourage visitors to debark along the route and take the time to stroll at a leisurely pace to enjoy the “magnificent inner canyon.”<sup>15</sup>

The 1977 Master Plan referred to the new transit idea as the “interpretive transportation system,” envisioning that it “would provide numerous opportunities for personal contact with park interpreters and other visitors, as well as greater exposure to the park itself.”<sup>16</sup> It called for audio stations, exhibits, or park personnel at the shuttle stops to interpret specific park themes, features, and activities. It suggested that programs at various sites along the route could engage visitors in themes such as photography, geology, early settlement, wildflowers and the night sky. It also envisioned publications and brochures available at the visitor center for those visitors interested in delving into a particular subject. This ambitious plan foresaw more interpretive staff in the inner canyon to advise and inform visitors, stating that “it is hoped that these face-to-face personal services will soon evolve as the backbone of Zion’s interpretive program.”<sup>17</sup>

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<sup>14</sup> National Park Service, *Master Plan*, 12.

<sup>15</sup> *Ibid.*, 14.

<sup>16</sup> *Ibid.*, 12.

<sup>17</sup> *Ibid.*, 14-16.

Other planning efforts in 1980, 1983, and 1989 followed the 1975 Interpretive Prospectus and 1977 General Management Plan, all of them proposing a voluntary transportation system as part of the visitor experience.<sup>18</sup> In August 1988, park management conducted a five-day experiment to test such a system. During the experiment, approximately 10% of the park's visitors used the voluntary system. The experiment noticeably reduced vehicle congestion. In the 1990s, a concessionaire operated interpretive tram rides on a limited basis between Zion Lodge and the Temple of Sinawava.<sup>19</sup>

After the late 1980s experiment, the NPS started to develop an "interim transportation plan" for implementation in a 3-5 year window, stating that information gleaned from the interim plan would lead to a long-term solution.<sup>20</sup> Park managers never implemented that interim plan, but instead employed the long-term solution a decade later. The April 1994 Zion Canyon Headquarters Development Concept Plan (DCP) prescribed the establishment of a mandatory shuttle system instead of a voluntary one to protect the park's natural resources and reduce congestion in the main canyon area.

In July 1992, a team from Balloffet and Associates, Inc. came to the park to observe traffic and parking conditions as well as talk with park officials and local residents to prepare a transportation study, completed in February 1993. In addition to studying the feasibility of a shuttle in Zion Canyon, the study also

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<sup>18</sup> National Park Service, *Zion National Park Interpretive Plan* (Washington: Government Printing Office, 1996), 16.

<sup>19</sup> National Park Service, *Canyon Transportation Plan Environmental Assessment, Zion National Park* (Washington: Government Printing Office, 1997), 3.

<sup>20</sup> National Park Service. *Information Brochure for Zion Canyon Interim Transportation Plan*. Washington: Government Printing Office, 1989.

featured proposals on possible shuttle routes from the Coal Pits Wash (west of the park on Utah Highway 9) to park headquarters, as well as a route from the park's east entrance to headquarters. These two possibilities never came to fruition for a multiplicity of reasons. The study concluded the canyon route would be the easiest to implement, the least costly, have the greatest ability to reduce congestion and have the best rate of rider acceptance.<sup>21</sup> The report concluded that a shuttle system would translate into visitors staying longer in the canyon and lead to a significant decrease in noise. To keep travel distance and costs down, it advocated construction of a bus maintenance facility inside the park instead of Springdale. It also recommended that a private contractor should operate the fleet because it would relieve the NPS of duties considered outside of typical park management.<sup>22</sup>

The 1993 transportation study advocated alternative fuel, open-air tram vehicles, based on public comments received following the 1988 transit experiment. It touted a tram system for its excellent visibility, lower cost, and full accessibility. Its estimates on required numbers of vehicles, system costs, and staff requirements were extremely low. The park later decided against open-air trams because they are unsafe in rollovers (current bus top will not collapse), less practical in cold weather (current buses have heaters), and would leave passengers vulnerable in rain and wind.<sup>23</sup> Furthermore, open-air trams would require sound

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<sup>21</sup> Balloffet and Associates, Inc., Zion National Park Transportation Study, February 1993, 16.

<sup>22</sup> Ibid., 26.

<sup>23</sup> Tom Haraden (Assistant Chief of Interpretation, Zion National Park), interview with author, September 21-22, 2006.



amplification at least 10 decibels above the noise level of the tram for driver-provided interpretation to be understandable to all passengers. Such amplification would be audible at elevated viewpoints such as Observation Point and Angels Landing.<sup>24</sup> Reducing noise was one of park managers' major goals for the proposed shuttle system.

A visitor utilization study completed in Zion in August 1994 by Al Shacklett found that 12 percent of visitors experienced problems during their visit. Visitors most frequently expressed displeasure with parking, the tunnel and crowds. Thirty-seven percent of visitors felt the park suffered from overcrowding, with the Temple of Sinawava (Riverside Walk trailhead) and Weeping Rock being the most frequent locations specified. Twenty-five percent of visitors indicated they felt that conditions were more crowded than they anticipated. A whopping 50 percent of the visitors surveyed said they experienced lack of parking, with the most frequent locations specified again as Weeping Rock and the Temple of Sinawava. Nineteen percent of visitors said they experienced damage to natural resources caused by other visitors. Possible improvements visitors suggested from this study included less traffic, more parking and the implementation of a shuttle system.<sup>25</sup>

“Increased visitation has resulted in crowded conditions, damage to and deterioration of visitor facilities, degradation of natural and cultural resources, and a resulting visitor experience that does not meet park goals,” the 1996 interpretive

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<sup>24</sup> Mary Ann Grasser, Memorandum to Elmer Hernandez, May 11, 1993.

<sup>25</sup> National Park Service, *Interpretive Plan*, 29.

plan said.<sup>26</sup> During summers in Zion Canyon before shuttle implementation, many people could not park at trailheads due to vehicle overcrowding. Visitors sometimes parked illegally on the side of the road, affecting the vegetation and creating potential traffic hazards.<sup>27</sup> Sometimes traffic congestion and lack of parking irritated visitors so much that they left the canyon without ever experiencing the resources they came to experience. “This is not the visitor experience or condition park managers want to promote,” the 1994 Zion Canyon Headquarters Development Concept Plan concluded.<sup>28</sup>

Since parking was inadequate before the shuttle, visitors parked their vehicles beyond established paved lots to utilize the unpaved roadside. Visitors also pulled off the road to look at spectacular views, resulting in several informal pull offs. Parking and pulling over on the road shoulder is easy because the main road lacks curbing in order to allow rain and snowmelt to flow unrestricted off the road into drainage ditches.<sup>29</sup> Pulling off the road and parking on the shoulder resulted in approximately eight miles of compacted soils along roadsides with a width varying between four to 12 feet. The compacted conditions meant a loss of permeability and soil moisture, which diminished the water storage capacity. As a result, runoff increased, causing erosion. The compaction from vehicles and foot trampling killed microbiotic crusts and vegetation, which further exposed bare

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<sup>26</sup> National Park Service, *Interpretive Plan*, 29

<sup>27</sup> *Ibid.*, 39.

<sup>28</sup> National Park Service, *Development Concept Plan, Zion National Park Headquarters*, (Washington: Government Printing Office, 1994), 12.

<sup>29</sup> *Ibid.*, 15.

ground to the effects of runoff.<sup>30</sup> Trampling of vegetation by visitors at the major-use areas, coupled with the closeness of the campgrounds to the main road degraded the visual quality of the park headquarters area. As visitation increased, vegetation died in these areas and reduced the visual quality.<sup>31</sup>

Parking congestion led to fights and frustration. On busy mornings, every parking spot filled quickly, leading people to drive around and around hoping that someone would vacate theirs. Some visitors would get so upset about not finding a parking spot that they would leave. Other visitors waiting for a parking space became irritated that people were not moving fast enough when backing out. A few visitors even went to the extreme of lying down in front of a parking spot because they did not want to lose it. The crowding even spread to Springdale, where frustrated residents wondered why they even lived so close to a national park if they could not truly enjoy it.<sup>32</sup>

The Interpretive Plan also explained the unfavorable pre-shuttle interpretive conditions that resulted from the overcrowding. During the height of the summer season, many visitors could not find parking spaces, which prevented them from obtaining basic information and orientation, such as picking up a park brochure or park guide and talking directly to park staff or volunteers. Visitors also wasted time waiting in line to get information at the visitor center, partly because its layout was not conducive to efficiently moving visitors through. Lack of

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<sup>30</sup> National Park Service, *Environmental Assessment*, 21.

<sup>31</sup> *Ibid.*, 33.

<sup>32</sup> The Road to Tranquility: The Zion National Park, Springdale, Utah Story. U.S. Fish and Wildlife Service. National Conservation Training Center.

coordinated interpretive information added to visitor frustration.<sup>33</sup> Another drawback of pre-shuttle Zion was the amount of time visitors spent in both the park and Springdale. The average stay, even the year before the shuttle began, was approximately one day. Some guests stayed as little as three hours.<sup>34</sup> A town whose economy depended on tourism welcomed longer stays. Visitors spending more time in Springdale would also lead to them spending more money in the town.

Park managers became concerned about the resource and the visitor experience, constantly degraded by approximately 15,000 people touring the narrow canyon road each busy summer day in their cars. They considered alternatives, including increased parking in the canyon and closing the scenic drive once parking filled, which went directly against one of the Park Service's original mandates that parks should be available to visitors for generations to come.<sup>35</sup> Fortunately, the alternative they decided upon did not lead to more pavement in the scenic canyon or more disgruntled visitors turned away from the spectacular scenery they came to enjoy.

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<sup>33</sup> National Park Service, *Interpretive Plan*, 36-37; National Park Service, *Development Concept Plan for Zion National Park Headquarters* (Washington: Government Printing Office, 1994), 12 & 39.

<sup>34</sup> The Road to Tranquility

<sup>35</sup> Diane T. Liggett, "Quiet in the Canyon," *National Park Service Sustainability News*, Fall/Winter 2002, 11.

## CHAPTER 3

### PLANNING FOR THE SHUTTLE

During the mid-1990s, Congress designated Grand Canyon, Yellowstone and Yosemite as national parks in which to develop a comprehensive effort to improve their public transportation systems. Congress authorized transportation studies in these parks, which led to the hiring of high-powered consultants to complete the studies. Fortuitously, in 1993, George Frampton, Assistant Secretary of the Interior at the time, invited Don Falvey, Zion's Superintendent from 1991 to 2000, to do a briefing on transportation issues in Zion at the same meeting the other parks presented the findings of their transportation studies. Frampton had been a frequent visitor to Zion, loved the park and realized the need for a transportation system to relieve congestion. At the meeting, the three other parks presented their studies first with elaborate graphics. Falvey followed with a description of how he envisioned a transportation system working in Zion using only a map of the park and some simple, handmade graphics. After Falvey's presentation, Frampton said, "I want to see a transportation system in Zion."<sup>1</sup>

"A huge amount of the credit goes to George Frampton for all this," Falvey said. "Frampton had visited Zion, seen the problem, and realized that a transportation system in Zion would cost a fraction of what it would take to implement one in Yosemite, Yellowstone and Grand Canyon."<sup>2</sup> Zion's transportation proposal proved the most feasible to implement due to Zion

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<sup>1</sup> Don Falvey (Former Superintendent, Zion National Park), interview by Kirk Scott, April 2, 2003.

<sup>2</sup> Falvey, interview.

Canyon's favorable geography. The 6.5-mile Zion Canyon Road is a dead end, facilitating easy control of traffic flow. Pulling off a similar project in the three larger parks would have required a lot more money and work.

Of the meeting and its favorable outcome, Falvey said, "We kind of slipped in the back door. We got the prize."<sup>3</sup> After the meeting, Zion received an all-important service-wide construction priority number. "That was the key that unlocked the door to this whole thing," Falvey explained. "If you didn't have a priority number, you didn't go anywhere. The Service Center wouldn't look at you, because you didn't have the money coming."<sup>4</sup> The park then started working closely with the Denver Service Center, which Falvey had just left before becoming superintendent, so he knew many of the people and how the system worked. "We got one of the top teams you could ever imagine to come here," Falvey concluded.<sup>5</sup>

Further helping the plight of transportation in national parks, in 1993, Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA), which, essentially, at a national level, sought for methods to solve transportation needs in a multi-modal way, instead of just building more roads. Funding from ISTEA helped many cities extend light rail systems, rehabilitate those already in existence and build new ones where they did not previously exist in cities such as Minneapolis, Seattle and Salt Lake City. These cultural currents looked at solutions not only in cities, but also in rural areas and in national parks. Through

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<sup>3</sup> Falvey, interview.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

ISTEA, the federal government was saying, “More of the same is maybe not appropriate,” Patrick Shea, Zion Transportation Project Coordinator at the Denver Service Center, said. “It was a good ‘galactic moment’ where good ideas came together and they started to find support and be at the right spot at the right time to make it happen.”<sup>6</sup>

Falvey and other Zion National Park managers decided the best alternative to balance visitor demand and infrastructure needs with resource preservation would be a mandatory shuttle system using propane-powered vehicles during the busiest time of the year. This alternative would increase the ability to control the number and concentration of visitors through scheduling of buses and regulating the number of riders. They foresaw the shuttle system reducing noise and pollution levels.<sup>7</sup> Park managers also realized that the park’s visitor center, some of its housing, some of its maintenance facilities, and some of its administrative facilities, were no longer sufficient for effectively serving both the agency and the visitor. They started brainstorming alternatives to solve these facility problems and out of that came an environmental assessment in the early 1990s.<sup>8</sup> By the final draft of this environmental assessment, in 1994, the NPS and park managers decided upon a transportation system as the central means to rectify this situation. The early environmental assessment of the Zion shuttle system met with widespread approval, the only dissenter being the tour bus industry, which was

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<sup>6</sup> Patrick Shea, (Transportation Technical Specialist and Project Manager, Denver Service Center), telephone interview with author, September 6, 2006.

<sup>7</sup> Diane T. Liggett, “Quiet in the Canyon,” *National Park Service Sustainability News*, Fall/Winter 2002,

<sup>8</sup> Shea, interview.

concerned about how to control large groups entering the park and potential loss of business since they would no longer be able to drive their buses up the canyon.

Originally, the Park Service envisioned the shuttle only serving guests within the park's confines, but after discussions with community members, park officials worked with an advisory group of Springdale residents to form a public-private partnership that expanded the shuttle system beyond Zion Canyon into town. This agreement proved vital, eliminating the need to construct a massive parking lot near the park entrance. The town's original general plan included the provision that the town would be the site of a parking lot for a shuttle system. However, as the planning process progressed, it became evident that no location in town would be suitable for such a parking lot. One NPS report explained that even the use of existing parking facilities in Springdale would reduce the number of required parking spaces at the visitor center by 50 percent.<sup>10</sup> As a result, the Park Service decided to build smaller parking lot at the new visitor center, which reduced the number of campsites lost to parking stalls in the redesigned Watchman Campground. Extending the shuttle service into Springdale meant visitors could park in town and board a bus to the entrance station, further alleviating traffic congestion. Falvey said the arrangement was a method of reducing the need for federal funds while benefiting local businesses.<sup>11</sup>

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<sup>10</sup> Phillip Bimstein, "Zion Canyon Shuttle Bus Transportation System," *NPS Partnerships*, October 16, 2003, [http://www.nps.gov/partnerships/zion\\_canyon\\_shuttlebus.htm](http://www.nps.gov/partnerships/zion_canyon_shuttlebus.htm)

<sup>11</sup> Christopher Smith, "Zion Park Officials Get Green Light on Canyon Shuttle System," *The Salt Lake Tribune*, March 24, 1994.



### Early Planning Process and Documents

The April 1994 *Development Concept Plan for Zion Canyon Headquarters* promoted a mandatory transportation system to protect resources and reduce congestion in Zion Canyon. During a public review of the draft of the Development Concept Plan, the park received 140 comments from public and government organizations. All but nine of them favored the proposed concept of a shuttle bus system in Zion Canyon during the peak visitor season. Three tour bus companies expressed concern about the plan to prohibit tour buses in Zion Canyon.<sup>12</sup> One of the main reasons the park sought to prohibit tour buses from entering the canyon is the noise they make. A noise study conducted in the canyon in 1993 revealed that cars produce sound levels of about 57 decibels while tour buses produce sound levels of about 82 decibels. Since the decibel scale is logarithmic, the 25-decibel difference means that one tour bus produces the noise equivalent of 270 cars.<sup>13</sup> The park was specifically concerned that such noise would drown out the sound of the Virgin River, even from elevated viewpoints such as Angels Landing. The NPS sought to ensure that visitors became conscious of the river as a central part of their park experience to help pique their curiosity about the river's role in the natural history of the canyon.<sup>14</sup> The river is central to the interpretive efforts at the park's history museum today.

The noise level study concluded that if open-air trams as quiet as cars replaced only the tour buses, it would eliminate noise pollution at elevated viewpoints due

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<sup>12</sup> National Park Service, *Development Concept Plan*, 9.

<sup>13</sup> Grasser, Mary Ann. Memorandum to Elmer Hernandez. 11 May 1993.

<sup>14</sup> Ibid.

to canyon traffic. Allowing cars in the canyon would still produce higher noise levels than the indigenous sound of the Virgin River flowing, which the park service desired to protect.<sup>15</sup> The study also surmised that the effect of prohibiting cars but allowing tour buses would have a negligible affect on noise reduction. The study recommended that quiet-running shuttle buses eventually should replace both cars and tour buses in order to achieve the desired noise reduction. The study also encouraged more bicycle use as a supplement to the elimination of automobiles.

During the early development of the transportation system design, it became necessary to revise many of the original plans. The primary changes were the reduction of the number of parking spaces needed in the Watchman Campground area from 575 to 400 and the location of the bus maintenance facility in the park rather than in Springdale.<sup>16</sup> The 1994 Development Concept Plan called for TW Recreation Services (now Xanterra), operators of the Zion Lodge, to run the shuttle system, but that honor went to a more qualified contractor later on.

#### The Denver Service Center Team

A team from the Denver Service Center, led by Shea, provided design and construction expertise for the entire transit system, both in the park and in Springdale. From the onset, the team realized that this project was on a different scale than had been done in other national parks – it was more comprehensive. Not only did it encompass a transportation system, but other facilities, such as the

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<sup>15</sup> Grasser, memorandum.

<sup>16</sup> National Park Service, *Environmental Assessment*, i.

visitor center, and community partnerships. The team did their best to plan for an improvement in the visitor experience and an improvement in sustainability. “It wasn’t just go buy a bus and run it up and down the canyon,” Shea said.<sup>17</sup> Shea, a landscape architect with a degree in business management, now serves as Regional Project Manager for the NPS Alternative Transportation Program.

The Denver Service Center team consisted of Shea and landscape architects Vicky Stinson, Jeff Woods, Steve Burns, and Jim Butterfus, along with NPS architect James Crockett. The team suggested expanding on the streetscape improvements made in Springdale by the Works Progress Administration (WPA) in the 1930s. They created design charettes (graphic representations) of both the visitor center and proposed streetscape design and called for public comment, incorporating some of that feedback into the design. “The charettes looked at a variety of solutions in a pictorial way that people could look at and evaluate,” Shea said. “[The charettes] set the stage for subsequent levels of problem solving.”<sup>18</sup> Producing the charettes enhanced the creative process, becoming visual brainstorms the team of design professionals utilized to develop solutions to the transportation problem.

“Rather than talk and wave our arms around, we drew pictures – we drew a lot of pictures,” Shea continued. “In the beginning we drew pictures that had less detail, but they were still pictures, because we were a little bit on eggshells on how well it would be received. The first drawings were sketchy in details, so that

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<sup>17</sup> Shea, interview.

<sup>18</sup> The Road to Tranquility

you could talk on a broader level first before you got into the specifics.”<sup>19</sup>

According to Shea, this pictorial and participatory method of planning helped build support. “We took a collaborative design-studio approach,” Shea explained, “not just for the initial concept design, but throughout the project.”<sup>20</sup> Stinson, who called the project a once-in-a-career opportunity, said the team engaged in week long, site analysis sessions and discussed many concepts with Springdale residents and business owners.

Springdale mayor Phillip Bimstein said the team “really kept communication flowing.”<sup>21</sup> The team immersed themselves in their work – camping onsite instead of opting for a hotel room. “When they came here, it wasn’t a 9-5 job,” Falvey said. “They really fell in love with this place and it showed.”<sup>22</sup> Park Facility Manager Dave Karaszewski said the Denver Service Center team did an excellent job at researching and studying problems, explaining:

Without those guys, we would have never been able to do this. We didn’t have to hire an outside consultant or contractor because the Denver Service Center people had the institutional memory and knowledge about national parks and what the park needs to function properly. You could hire [an outside consultant], but you’d end up with an amusement park, you wouldn’t have a national park.<sup>23</sup>

The Denver Service Center team considered practically all options when planning the best way to implement the shuttle. For instance, they considered turning the Zion Canyon Giant Screen Theatre into the visitor center, or building

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<sup>19</sup> Shea, interview.

<sup>20</sup> Kim Sorvig. “Renewing Zion.” *Landscape Architecture*, February 2002, 76.

<sup>21</sup> Ibid.

<sup>22</sup> Don Falvey, interview by Kirk Scott.

<sup>23</sup> Dave Karaszewski, (Former Facilities Manager, Zion National Park), interview with author, September 21, 2006.

the new visitor center and transportation hub on theatre property. “We were looking for ways to bury the hatchet on the bad feelings [between the park and theatre] and see how we could work together,” Falvey admitted.<sup>24</sup> In the end, the theatre met the park half way, literally. It contributed half of the funds necessary to build a pedestrian bridge across the Virgin River from its property to where the new visitor center now stands. It also redeveloped its property by enlarging its parking lot to accommodate tour buses, removing an unsightly gift shop close to the road and constructing a small grocery store and gift shop adjacent to the theatre, which became the terminus of the town loop.

During the planning and design phase, the team wrestled with several concerns:

- Peak parking demand occurred at different hours in the park than in the town.
- Large flat locations for a monolithic parking lot within Zion existed only near the town/park boundary, which would encroach on town property, compete with the new visitor center for prime acreage, and make pavement the first thing Zion visitors would see.
- If the park banned vehicles, one of two things would happen, cars would park illegally throughout Springdale or a huge parking lot would appear at the edge of town. Shuttling from a distant lot could bypass Springdale and cripple its businesses.

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<sup>24</sup> Don Falvey, interview by Kirk Scott.

- Both the town and park aimed for high-quality visitor experiences. Many simple access solutions, such as centralized park-and-shuttle, would greatly diminish that quality and distance people from the place they came to enjoy.<sup>25</sup>

The solution to these concerns emerged as two integrated parts: free town and park shuttles with dispersed parking using existing parking lots in town and a landscape-focused visitor center linking the community and the park.<sup>26</sup> As an incentive for the retailers and motels that provided the parking, the town permitted them to expand their facilities beyond the imposed density allowances.<sup>27</sup>

#### Later Shuttle Planning and Documents

The management objective for the shuttle system, contained in the Zion National Park Interpretive Plan of April 1996 stated that visitor facilities and services would be “designed and maintained for sustainability and environmental sensitivity to ensure non-degradation of park resources.”<sup>28</sup> Improvements made during the shuttle implementation and construction would be examples of sustainable design, the plan explained. The plan foresaw the park’s main interpretation audience as visitors with little or no experience with alternative transportation systems or mass transit. Park interpretive staff felt the initiation of a shuttle would transition the park from a passive “windshield experience” to a

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<sup>25</sup> Sorvig, 76.

<sup>26</sup> Ibid.

<sup>27</sup> Sarah Van de Wetering. “A Seamless Canyon: Zion National Park and Springdale, Utah, discover the powers of partnership.” *Chronicle of Community*, Winter 1999, 12.

<sup>28</sup> National Park Service, *Interpretive Plan*, 7.

place of discovery. Additionally, the plan noted that Zion would continue its status as a sanctuary, but with an increased awareness by the park-going public about their responsibility for its protection.<sup>29</sup>

The April 1996 Interpretive Plan's park-wide visitor experience goals stated that visitors to Zion National Park would have opportunities to:

1. Feel comfortable using the shuttle system due to prior and ongoing orientation regarding shuttle operation, activity options, best use of time, etc.
2. Appreciate the need for the shuttle system in terms of resource protection and visitor experience.<sup>30</sup>

Since the shuttle would change the face of interpretation in the park, the park's interpretation personnel had to plan, design and install orientation information and interpretive media about the proposed transportation system regarding shuttle use, tunnel escorts, park resources and services, and park themes. The plan mentioned that interpretation could appear on the shuttles themselves and that messages would be brief and tied in with the shuttle stops and park resources. Noting that buses would most likely not include loudspeakers, the plan envisioned visitors could choose to use publications, individual headphones jacked into an audio system, individual tape players, or other "low-key methods" to obtain interpretive information.<sup>31</sup> Today, shuttle buses do include loudspeaker systems with shuttle drivers providing interpretive information throughout the ride, a departure from the original plan.

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<sup>29</sup> National Park Service, *Interpretive Plan*, 8, 12 & 51.

<sup>30</sup> *Ibid.*, 13.

<sup>31</sup> *Ibid.*, 48

The Interpretive Plan envisioned an increase in interpretive staff and visitor contact stations outside the park's south and east entrances that would contain shuttle and parking information, a plan advocated by the 1993 Transportation Study. Explaining that the new shuttle system would significantly increase visitor access to trailheads and trail use, the plan advocated more interpretive staff, suggesting they could provide guided hikes and/or be stationed at trailheads to disseminate information and answer visitors' questions. Park interpretive staff felt wayside exhibits would facilitate trip planning and impart succinct park interpretive messages for visitors to contemplate as they entered the park, especially after hours and when staff is not available.<sup>32</sup> "Wayside exhibits have a revolutionary potential to cross media boundaries," the interpretive plan argued. "New waysides can blend orientation, information and interpretive functions at shuttle stops, and can cross the boundary between indoor and outdoor interpretation at the proposed visitor center."<sup>33</sup> The plan suggested a station between the towns of Virgin and Rockville could feature a staffed information desk that would introduce Zion's interpretive themes, if funding was available. Unstaffed visitor contact stations now stand between Rockville and Virgin and within 15 miles of the east entrance station on U.S. Highway 9. The park hoped to hire three to five more full-time interpretive staff to more efficiently meet visitor needs after the shuttle began, but due to the constantly tenuous position of the NPS budget, this ambitious plan of augmenting the park's interpretive staff never came to fruition. "If additional interpretive staff is not available, the visitor

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<sup>32</sup> National Park Service, *Interpretive Plan*, 56.

<sup>33</sup> *Ibid.*, 58.



experience at Zion will be incomplete,” the plan lamented.<sup>34</sup> A frightening example of the park’s lack of interpretive budget is Tom Haraden, assistant chief of interpretation. When he retires in a few years, the park service will not hire anyone to fill his position. Instead, the NPS will eliminate his job.

Pre-planning efforts foresaw the new visitor center built in conjunction with the transportation system as visitors’ first step towards discovering Zion. It prescribed exterior and interior media presentations that would inform visitors that the shuttle would be the park’s primary means of access, hoping that visitors would have reduced anxiety about leaving their personal vehicles behind and be able to better experience the park and its resources with minimal distractions or concerns.<sup>35</sup>

The 1997 Environmental Assessment said that the transportation system sought to “eliminate vehicular congestion in Zion Canyon, improve the overall visitor experience, and promote protection of the natural and cultural resources.”<sup>36</sup> The Environmental Assessment explained that the transportation system would run during the peak visitor season (April to October) with a long-term goal of year-round operations. “Visitors will be encouraged to leave their cars at designated parking areas within Springdale and use the transit system, thus reducing the number of parking spaces needed in the park.”<sup>37</sup> The assessment said that shuttle operation would initiate in May 1999, when, in actuality, it began a year later.

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<sup>34</sup> National Park Service, *Interpretive Plan*, 60.

<sup>35</sup> *Ibid.*, 49.

<sup>36</sup> National Park Service, *Environmental Assessment*, 9.

<sup>37</sup> *Ibid.*

The assessment concluded that even though the shuttle would reduce congestion in the park, Springdale would continue to experience congestion during the peak visitor season, resulting in time delays and frustration over crowded conditions. It expected traffic to increase in town regardless of the proposal, but anticipated the town loop buses would decrease the adverse effects. It concluded that visitors who left their cars at their place of lodging in town or other shuttle designated parking would not be adding their personal cars to the traffic flow.<sup>38</sup>

The 1997 Environmental Assessment foresaw the shuttle system improving the visitor experience by reducing crowding and improving opportunities for interpretation. It further explained, however, that experiences depend on visitor expectations and values and some may find the less crowded conditions more appealing, while others are not bothered by or even prefer to have many people around. It envisioned the transportation system would provide an excellent opportunity to educate visitors about the canyon resources available. It explained how the shuttle system would help roadside vegetation and decrease erosion potential because visitors would no longer stop at random along the roadside with their attention diverted by scenery or wildlife. With reduced levels of traffic on the Zion Canyon Scenic Drive, the plan suggested that cyclists and pedestrians would be able to safely ride and walk to trailheads and viewpoints.<sup>39</sup> The shuttle would provide a more structured experience in the canyon, which would not allow random stops to sightsee, view wildlife or take photos, the assessment concluded.

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<sup>38</sup> National Park Service, *Environmental Assessment*, 49.

<sup>39</sup> *Ibid.*, 51.

On the other hand, it surmised that hikers and bicyclists would be able to take full advantage of the less crowded conditions at those areas not designated shuttle stops.<sup>40</sup>

One of the cons of the shuttle system, as stated in the 1997 Environmental Assessment, would be inconveniencing passengers leaving their vehicles with substantial amounts of belongings and equipment due to the difficulties of transferring the equipment from the car to the transit vehicle and storing the equipment while hiking. The assessment said this would also apply to visitors with mobility impairments, for whom transfers may be difficult and time consuming. The transfer of equipment and persons with disabilities might increase the delay times between buses, it said.<sup>41</sup> The document foresaw the shuttle also inconveniencing pet owners because the shuttle system round-trip time would be too long to leave their pets in vehicles.

The Environmental Assessment concluded that implementation of the shuttle system would reduce noise and pollution levels in the canyon, which negatively affected wildlife and plant species. The document explained that there would be no detrimental effects to special status wildlife species from the implementation of the transportation system. In one case, it foresaw beneficial effects for a wildlife species. It concluded that the system would benefit the Physa, otherwise known as the Zion snail, from lowering the amount of parking adjacent to its habitat.<sup>42</sup>

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<sup>40</sup> National Park Service, *Environmental Assessment*, 49.

<sup>41</sup> *Ibid.*, 51.

<sup>42</sup> *Ibid.*, 24-28.

The planning process considered practically every detail that might result from shuttle implementation, taking into account everything from a possible increase in social trailing to potential impact on archaeological sites. Despite the minor drawbacks park personnel anticipated, they knew the proposed transportation system would easily accomplish its two overarching goals – reduce crowding and improve the visitor experience. Little did they know, the project would also patch up the park’s tenuous relationship with Springdale, its gateway community, and begin an era of unwavering cooperation between the two entities that has become legendary.

## CHAPTER 4

### THE ZION-SPRINGDALE PARTNERSHIP

The partnership developed between Zion National Park and the Town of Springdale proved vital in the shuttle implementation process. The cooperation between the two entities has become a model for other national parks and gateway communities to follow. Springdale resident Anita Holmes, in 1996, possessed outstanding foresight, writing that the Zion and Springdale shuttle system:

. . . is a ground-breaking concept in terms of public/private partnerships. Our shuttle system project will provide an example of how such partnerships can successfully function to fulfill the needs of a popular tourist attraction and the visitors it brings to the area, and the needs of permanent, year-round citizens who live in the gateway community to the park.<sup>1</sup>

Historically the National Park Service has had somewhat of an insulated perspective in dealing with major issues that could affect gateway communities, in a way saying, “Well, it’s our problem so we’ll figure it out,” transportation project manager Patrick Shea explained.<sup>2</sup> Recently, through a better ecological perspective, the agency has realized that the resources of its parks go beyond political boundaries. The NPS has recognized the important role of gateway communities as opportunities for a more comprehensive solution to some park problems. It has realized that it is best not to accommodate all the needs of visitors solely in parks themselves. Shea said the NPS could have completed the project without Springdale, but it would not have been nearly as successful. For instance, Shea said the inclusion of Springdale proved vital in attracting the Utah

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<sup>1</sup> Anita Holmes, Letter to Don Falvey, 4 March 1996.

<sup>2</sup> Patrick Shea (Transportation Technical Specialist and Project Manager, Denver Service Center), telephone interview with author, September 6, 2006.

Department of Transportation (UDOT) and keeping the agency as a project partner.<sup>3</sup>

Zion and Springdale, along with UDOT and the Zion Natural History Association (ZNHA), won awards from national organizations, including the National Park Partnership Leadership Award, for their involvement in the transportation project. Springdale was so supportive of the transportation system – helping the park develop it and providing shuttle stops – that the National Parks Conservation Association awarded the mayor, the town council, businesses, and residents of Springdale its first National Parks Achievement Award, which recognizes outstanding efforts to protect parks.<sup>4</sup> Park Superintendent Don Falvey and Springdale’s mayor, Phillip Bimstein, even taught classes on building partnerships with gateway communities. Falvey was an instructor for a Chief Rangers’ training course on partnerships. In 1997, *Parade* magazine praised Bimstein as “The Man Who Brought Civility Back To Town.” The U.S. Fish and Wildlife Service produced four videos about building partnerships with gateway communities, one of which featured Zion and Springdale as the example to follow within the National Park Service. The jacket for that video presentation, entitled “The Road to Tranquility: The Zion National Park, Springdale, Utah Story,” explains the relationship in a nutshell:

While the park and town have worked together on many initiatives, including community visioning processes, emergency response situations, and land use planning in areas adjacent to the park, they are best known for designing and implementing the Zion Shuttle System. Together,

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<sup>3</sup> Shea, interview.

<sup>4</sup> Wendy Mitman Clarke. “The National Park or Parking System?” *National Parks*, Jul/Aug 2001.

through a 6-year planning and design process, the town and park collaboratively developed a shuttle system that has not only become a national model, but has also increased visitor stays and spending in the town and returned a sense of solitude to the canyon drive.<sup>5</sup>

Falvey firmly believed that the basis of a partnership is a good relationship and did his part to cultivate relationships after he arrived in the park as superintendent in 1991. Zion National Park was Falvey's last stop in an illustrious park service career that spanned three decades. Falvey, who earned an engineering degree from Georgia Tech, began working for the NPS at the Denver Service Center, then served as Chief of Maintenance for the Rocky Mountain Region. His next stop was a stint as superintendent of Badlands National Park in South Dakota, after which he returned to the Denver Service Center. Hoping to land another superintendent job where he could finish his park service career, Falvey applied for posts at Acadia National Park in Maine and Canyonlands National Park in southeastern Utah, to no avail. Zion was his last hope. He had traveled to Zion while serving as Chief of Maintenance and fell in love with the park. Fortunately, Regional Director Lorraine Denning selected him for the position, with the assignment to fix congestion as one of his "marching orders."<sup>6</sup>

When Falvey arrived, the park and the regional office were working on a Development Concept Plan (DCP) for the headquarters area. They scrapped the DCP process in favor of searching for transportation system options. Through a contact in the Federal Highway Administration, Falvey said he finagled \$40,000

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<sup>5</sup> The Road to Tranquility: The Zion National Park, Springdale, Utah Story. U.S. Fish and Wildlife Service. National Conservation Training Center.

<sup>6</sup> Don Falvey (Former Superintendent, Zion National Park), interview by Kirk Scott, April 2, 2003.

to do the transportation study by Balloffet and Associates, Inc. That got the ball rolling on the transportation issue. Before receiving the service-wide priority number through the presentation to Frampton, volunteers stepped in to help since the park did not have enough money to hire consultants. Townspeople counted how many cars there were throughout the canyon at different times, as well as in town, to try to get an idea of the amount and flow of traffic. It was at this time that the park started working closely with Springdale in considering a plan for a transportation system, thinking about everything from a staging area outside of Rockville to how big the buses should be. “It was one of my personal objectives coming here to work closely with the community,” Falvey said. “So that’s one thing I did right from the start, get involved in the town officially and unofficially.”<sup>7</sup>

When Falvey arrived, the prospect of forging a partnership between Springdale and Zion seemed extremely grim. Washington County sheriff’s deputies were regulars at town meetings as town residents took sides.<sup>8</sup> When Falvey heard sheriff’s deputies were needed at every meeting, he thought it was a joke. He soon realized it was not. During that period, resort and second-home developers discovered the town, which became polarized between preservation and development. In the early 1990s, the construction of the Zion Canyon Giant Screen Theater at the town’s boundary with the park caused a heated controversy. The National Park Service and environmental groups opposed plans to build such

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<sup>6</sup> Falvey, interview by Kirk Scott.

<sup>8</sup> Michael Ryan. “The Man Who Brought Civility Back To Town.” *Parade Magazine*, November 7, 1997, 14.



a development so close to the park boundary. A divided town council approved the development and exempted it from a zoning ordinance that restricted building height to 35 feet.<sup>9</sup> Some townspeople grew incensed that the park had overstepped its bounds by opposing development outside the park. Park personnel also became angry about the handling of filming the movie now presented at the theater. After the Cinemax Theater completed filming from the ground, it began filming from the air, which upset Falvey. “Once the filming permit was over, all of the sudden there were flights over the park, which I thought was not an appropriate way to behave,” Falvey said. “That led to some bad feelings and we didn’t even attend the grand opening. The situation was sour for a while.”<sup>10</sup>

During these controversies, a dividing line between park and town appeared. Lawsuits arose, and a headless chicken even appeared on a town councilor’s lawn.<sup>11</sup> At one point, the mayor, Bob Ralston, wanted to sue some city staff for incompetence. Adding to the rift between the two entities, traffic congestion and visitor parking created severe problems, yet without those visitors, Springdale and its hotels, restaurants, campgrounds, gift shops and outdoor outfitters would dry up.

Falvey worked to turn the tide. When an earthquake rattled Springdale on September 2, 1992 and destroyed several houses in town, Falvey made sure park staff was there to assist, sending emergency crews to respond and help evacuate

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<sup>9</sup> Sarah Van de Wetering. “A Seamless Canyon: Zion National Park and Springdale, Utah, discover the powers of partnership.” *Chronicle of Community*, Winter 1999, 8.

<sup>10</sup> Falvey, interview by Kirk Scott.

<sup>11</sup> Kim Sorvig. “Renewing Zion.” *Landscape Architecture*, February 2002, 74.

endangered residents. He did it, despite a little apprehension that he was overstepping his bounds. “Here I [was], going out on a limb using government equipment and staff time to work outside the park, but [it] reaped great benefits,” he said. “Not too long after that I heard the comment that ‘there used to be fences built between the town and the park – [and] now they’ve come down.’”<sup>12</sup> This comment pleased Falvey. It was exactly what he was trying to achieve.

To further ‘tear down fences,’ Falvey and his wife, Carole, became members of the town’s arts council and helped at bake sales. They became active volunteers as members of the Lions Club (she later served as the club’s president) and by faithfully attending town meetings. In April 1995, when a sudden late-night landslide dammed the Virgin River approximately one-half mile up Zion Canyon and threatened to flood campgrounds and low-lying buildings, Park Superintendent Falvey turned to the mayor to help organize emergency evacuation relocation inside and outside the park.<sup>13</sup> In late 1995, when a budget standoff furloughed government workers, Falvey volunteered, with nine other park employees, to paint a gazebo in the town park. Bruce Vanderwerff, who served as mayor after Bimstein, said that Falvey made Springdale residents feel NPS staff was part of the community.<sup>14</sup> Falvey encouraged park personnel to be visible in the community, by frequenting its restaurants, attending town functions and ensuring the park always had an entry in local parades. Falvey showed his commitment to establishing a cooperative agreement between park and town by

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<sup>12</sup> Falvey, interview by Kirk Scott.

<sup>13</sup> Ryan, 15.

<sup>14</sup> The Road to Tranquility.

becoming a member of Springdale's planning commission and an active participant in the chamber of commerce. He never missed a meeting of either organization.<sup>15</sup>

Bimstein was truly the right man at the right time to foster the partnership between the two entities. A Chicago native, he impulsively bought a house in the town on a hiking trip in 1988, without knowing hardly anything about the community or anyone in it, for that matter. Five years later, he thrust himself into the forefront of the town's politics. A group of Springdale residents, desperate to point the town in a new direction, convinced Bimstein to run for mayor in 1993. They felt he was the one public figure that was actively involved in improving the town's reputation through his service as president of the town's art council, a capacity in which he persuaded the New Music Festival to come to Springdale in 1992. He initially hesitated, but soon became excited about the idea. His platform and method of campaigning were unconventional. He summed up his platform in one word, civility, and telephoned people he did not know, asking if he could stop by to discuss any issues on their minds. "I told them I didn't see the mayor's job as pushing through an agenda but rather as moderating and facilitating," Bimstein explained. "We all have to listen to each other and respect what the other person thinks."<sup>17</sup> Running against two other candidates, Bimstein garnered 60 percent of the vote. The town elected two council members with similar views at the same time. Once in office, Bimstein began making changes, appointing new members

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<sup>15</sup> Brent Israelsen. "Steward of the Land: A Legacy of Peace in the Park; Zion's top official a master of compromise and conciliation; Falvey: Peacemaker In the Park." *The Salt Lake Tribune*, June 26, 2000.

<sup>17</sup> Ryan, 14

to the planning commission and instructing his appointees to listen and to treat each person in the town equally. “The atmosphere has changed,” Falvey remarked, after Bimstein took office. “Now it’s conducive to mutual cooperation and problem-solving.”<sup>18</sup> One resident even gave up attending town council meetings, saying, “All they do now is conduct business. They’re no fun anymore.”<sup>19</sup>

Since Falvey and Bimstein’s arrival on the scene, Zion and Springdale have tried to erase the boundaries between the park and town. In 1993, Springdale created a non-voting seat on its planning commission for an NPS employee to draw from his or her expertise and facilitate open communication between park and town. The park service reciprocated and invited a town representative, selected by the mayor, to sit in on park meetings. Springdale’s efforts to link the town and park aesthetically led to the collaboration of linking the two physically through the shuttle system.

Bimstein realized that “the town had the same mission as the park – to protect our resources while offering hospitality to visitors.”<sup>20</sup> The town’s resources are its character and quality of life, while the park’s resource is its great cathedral-like canyon. These resources drew visitors, but without managing and designing for visitors, both the town and park’s resources were being eroded. When planning began, Bimstein explained that it was unheard of for anything the NPS did to extend beyond park boundaries. Falvey echoed the sentiment. “We had always

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<sup>18</sup> Ryan, 15.

<sup>19</sup> Ibid.

<sup>20</sup> Sorvig, 75.

assumed that problems in the park were to be solved by actions within the park,” he said.<sup>21</sup> “It’s simpler if you keep to yourself and develop a plan for just inside the park, but there are far more benefits when you reach outside.”<sup>22</sup> This communicative climate Falvey and Bimstein created led a few Springdale residents to approach the NPS with a novel idea: solving their transportation problems together.<sup>23</sup>

In the beginning, the shuttle had its proponents, and those that were “dead-set against it,” said Dean Cook, President of Zion Canyon Visitors Bureau.<sup>24</sup> Some residents thought it would hurt business by driving away visitors, thinking it would raise taxes and create traffic jams and parking nightmares, which would discourage visitors from coming.<sup>25</sup> Despite the detractors, the community had been anxious to be in discussion about the shuttle since the early 1990s. Bimstein assembled a 10-member liaison committee to devise a transportation plan to meet the needs of both the park and the town and to facilitate communication in general between the two entities. The committee also formed the basis for active communication between the town and the park. Bimstein ensured that three members of the committee were NPS critics because he thought it important to bring together a variety of viewpoints, including those that entertained questions and doubts about the proposed shuttle.<sup>26</sup> This committee provided the first push to operate the shuttle in the town as well as the park. “It kind of blew everyone’s

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<sup>21</sup> Sorvig, 75.

<sup>22</sup> Van de Wetering, 12.

<sup>23</sup> Sorvig, 75.

<sup>24</sup> The Road to Tranquility.

<sup>25</sup> Van de Wetering, 5.

<sup>26</sup> The Road to Tranquility.

mind when we first started talking about it because there were so many obstacles to overcome,” Falvey said.<sup>27</sup>

In 1994, Springdale liaison committee member Alma Young personally surveyed attitudes toward the shuttle plan and found a majority of those responding to a questionnaire supported the idea. Of the 101 surveys mailed out to Springdale residents, 46 were in favor of the shuttle, 12 opposed it and eight said they needed more information. “I feel a lot more comfortable in supporting the plan knowing that most of the people who responded like the idea of a shuttle,” said Young, who operates the Zion Park Motel and Market in Springdale with her husband.<sup>28</sup>

Some town residents, however, reacted “like a beast taking a bullet,” explained Logan Hebner, longtime resident and shuttle dispatcher. “Rumors were rampant. You couldn’t find a fact anywhere.”<sup>29</sup> To quell the rumors, Bimstein and Falvey called a high-profile town meeting at the town hall in 1995 that attracted about a fifth of the town’s population. At the opening of the meeting, Bimstein said, “We hear people are worried that the federal government is coming in here and telling us what to do,” then he pulled out a park ranger hat, put it on, and retorted, “I don’t know where people are getting this idea.”<sup>30</sup> Bimstein’s comedic antics helped break the ice, as everyone laughed. Falvey then took out a flipchart and asked everyone at the meeting what rumors they had been hearing. He wrote

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<sup>27</sup> Falvey, interview by Kirk Scott.

<sup>28</sup> Christopher Smith, “Zion Park Officials Get Green Light on Canyon Shuttle System.” *The Salt Lake Tribune*, March 24, 1994.

<sup>29</sup> The Road to Tranquility.

<sup>30</sup> The Road to Tranquility.

down every concern expressed. When every person that wanted to say something had finished talking, Falvey and Bimstein addressed every concern on the list. Their approach was successful as the gathering turned from an adversarial encounter to more of a chat among friends.

Falvey felt it vital to listen to and consider every viewpoint, explaining that opposition would die down after everyone involved had an opportunity to provide input. Bimstein echoed this sentiment, saying that if people have a chance to express why they object, ask questions about a project, and receive answers to those questions, in all likelihood, they are going to buy into it. “Even though there was opposition, the process was done so well that everyone acquiesced,” Hebner said. “They knew they were at least being listened to – they weren’t being railroaded.”<sup>31</sup> Eventually, the town developed a clear vision of its community assets, including open space, unimpeded views, public land, and clean air and water, and came together to develop policies to protect them.<sup>32</sup>

One of the major challenges in the partnership was that the park lacked the authority to spend funds outside of park boundaries. Working closely with Utah Congressman Jim Hansen’s office, Falvey was instrumental in ensuring special legislation passed that allowed Zion to expend funds outside the park. The legislation allowed the park to “work with the adjacent community if there was a benefit for the town and for the government.”<sup>33</sup> The legislation, passed November 12, 1996, stated that the park could “expend donated or appropriated funds for the

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<sup>31</sup> Ibid.

<sup>32</sup> Van de Wetering, 14.

<sup>33</sup> Falvey, interview by Kirk Scott.

establishment of essential facilities for park administration and visitor use outside the boundaries, but within the vicinity, of the park.”<sup>34</sup> Additionally, the legislation required that the park use such expenditures to build such facilities if the facilities’ location would avoid undue degradation of natural or cultural resources within the park, enhance service to the public, or provide cost savings to the Federal Government.<sup>35</sup> “We were on some ‘new ground’ that needed some new authorizations and resources to happen,” Shea said.<sup>36</sup>

For instance, the park built a trailhead parking area for a trail that entered the park through the Anasazi Plateau development located at the west end of Springdale. “We were able to use appropriated funds to build a parking lot,” Falvey said. “Without that authority, we couldn’t do that.”<sup>37</sup> Without the authority the legislation provided, the park would have been unable to work with entities such as the town of Springdale and the Giant Screen Theatre. In addition to the legislation, the park and town have many agreements together, including culinary and irrigation water, wastewater, and a combined fire and emergency services response capability.

Springdale aided the NPS in solving one of its difficult decisions of shuttle implementation – deciding where visitors would park their cars before boarding the shuttle. At first, there was talk about building a parking lot in town, but there was no location suitable enough. During discussions on the subject with the

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<sup>34</sup> Omnibus Parks and Public Lands Management Act of 1996, Pub. L. no. 104 333, 110 Stat 4195 (1996).

<sup>35</sup> Ibid.

<sup>36</sup> Shea, interview.

<sup>37</sup> Falvey, interview by Kirk Scott.



liaison committee, a town resident suggested leaving cars in existing parking in Springdale rather than building a large parking lot. The park liked the idea because it meant less paved area in the park.<sup>38</sup> Even the 1994 Development Concept Plan stated, “In lieu of additional parking in the town of Springdale, the system will extend outside the park to include shuttle stops throughout town, transferring visitors at the transit center.”<sup>39</sup> Springdale’s general plan also identified the need for transportation, saying that the town would provide a parking area to supplement the park’s shuttle system.<sup>40</sup>

Bimstein felt that preservation of natural resources, in the form of the shuttle system, had an economic value for Springdale. He argued that such preservation would provide a unique experience for visitors, encouraging them to stay in Springdale and patronize its restaurants, motels and gift shops.<sup>41</sup> Bimstein saw the partnership between the two entities as a natural way to weld the missions of both the park and the town, “to preserve and protect our natural and community resources, and to make those resources available to our millions of visitors in a high-quality, enhanced experience.”<sup>42</sup> The shuttle system, said Bimstein, allows continued visitation without degrading the whole experience.

Bimstein felt the shuttle would help the town’s economy. He envisioned people would stay longer when they were able to walk out of their hotel rooms,

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<sup>38</sup> The Road to Tranquility.

<sup>39</sup> National Park Service, *Development Concept Plan*, 17.

<sup>40</sup> Falvey, interview by Kirk Scott.

<sup>41</sup> Phillip Bimstein, “Zion Canyon Shuttle Bus Transportation System,” *NPS Partnerships*, October 16, 2003, [http://www.nps.gov/partnerships/zion\\_canyon\\_shuttlebus.htm](http://www.nps.gov/partnerships/zion_canyon_shuttlebus.htm)

<sup>42</sup> Bimstein.

board the shuttle at a nearby shuttle stop, ride to the entrance of the park, then board another shuttle into the canyon. This type of environment, Bimstein said, would make Springdale more of a destination resort and encourage more shopping in and awareness of the town.<sup>43</sup>

The former mayor said his greatest satisfaction in the cooperative agreement between Springdale and Zion was the friendships that developed between park personnel and town residents, citing specifically the friendship he built with Falvey. Falvey concurred, saying, “Phillip and I were a good working team.”<sup>44</sup> The two attended conferences together, making what Falvey called “Frick and Frack presentations.” “We were real low tech,” Falvey explained. “[We] didn’t have money for fancy presentations, but we were able to put on a presentation to describe what we were doing . . . which brought good visibility to the town.”<sup>45</sup>

According to Shea, another benefit of the Zion-Springdale partnership was securing the help of other agencies.<sup>46</sup> In 1995, the city of Springdale and UDOT received a \$450,000 federal grant to build a visitor contact station and shuttle stops outside the park, the funding coming from enhancement funds, a program UDOT administers. This public-private partnership provided much-needed leverage to secure federal support for the shuttle project.

The relationship between Zion and Springdale differs drastically from another gateway community located just 100 miles south, as the crow flies. Unlike

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<sup>43</sup> The Road to Tranquility.

<sup>44</sup> Falvey, interview by Kirk Scott.

<sup>45</sup> Ibid.

<sup>46</sup> Christopher Smith, “Construction Of Zion Shuttle To Begin in Fall,” *The Salt Lake Tribune*, June 20, 1997.

Springdale, Tusayan, Arizona, gateway to the Grand Canyon's South Rim, has overtly resisted longstanding plans for a light rail system to soften the blow of ever-increasing tourist traffic. Tusayan locals defend their monopoly on South Rim access and scoff at blueprints for sustainable development. "Where Tusayan saw the NPS and developers as outsiders and enemies, Springdale overcame town-versus-park fears and invited NPS to collaborate on a mutual transportation problem," Kim Sorvig wrote in the February 2002 issue of *Landscape Architecture* magazine.<sup>47</sup> The partnership forged between Zion and Springdale through the transportation system is one that will endure, regardless of who is serving as park superintendent, town mayor, or other park and town leadership capacities.

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<sup>47</sup> Sorvig, 73-79.

## CHAPTER 5

### SHUTTLE SYSTEM CONSTRUCTION

The official groundbreaking of the transportation system and visitor center's construction took place on August 21, 1998 with Utah Senator Bob Bennett and former Utah congressional representative Jim Hansen in attendance. Bennett and Hansen used a mule-drawn Fresno shovel to turn the first shovelfuls of dirt. "By reducing the number of vehicles in the canyon, this new shuttle system will improve the visitors' experience, help protect the delicate landscape and accommodate expected increases in visitation," Bennett said at the occasion.<sup>1</sup> Bennett was an integral part of securing federal funding for the shuttle through the Senate Interior Appropriations Subcommittee. Along with the Utah Congressional delegation, state and local governments and conservation groups fully supported the transportation system.

The NPS exercised prudence during the shuttle system construction, building in stages that could stand alone in case Congress decided to discontinue funding for the project. The first phase was the Pa'rus Trail, a three-mile bicycle path opened in October 1994. The trail, planned since 1991, provided an alternate route for bicycles and pedestrians to avoid the park's main access road, eliminating conflicts between bicycles, pedestrians and automobiles on a narrow, heavily used portion of roadway. The trail is 10 feet wide and made of concrete. The trail's alignment utilized existing unpaved access roads to minimize

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<sup>1</sup> Christopher Smith, "Construction Of Zion Shuttle To Begin in Fall," *The Salt Lake Tribune*, June 20, 1997.

environmental impacts on natural areas.<sup>2</sup> The placement of bridges on the trail did not affect views along the roadway or popular photographic spots.<sup>3</sup> The trail is handicap accessible and includes many well-defined river access points.

Before the trail's completion, bicyclists shared Zion's trademark red roadways with thousands of vehicles. The trail has improved bicyclists' safety and enjoyment along the scenic Virgin River Valley. The bike trail extends from the park's campground area near the west entrance to the junction of the Zion Canyon Scenic Drive and the Zion-Mount Carmel Highway. The trail was completely finished in April 1995.<sup>4</sup> The advent of the transportation system also meant the improvement of existing trails in the park. For instance, the NPS upgraded the unimproved trail paralleling the east bench of the river between Weeping Rock and the Temple of Sinawava to delineate a singular path where multiple social trails had formed.<sup>5</sup>

After the construction of the Pa'rus Trail, the NPS planned the additional construction phases as follows:

Phase 2 – Visitor Center, bus maintenance facility, canyon junction intersection, the Zion Lodge and Temple of Sinawava shuttle stops, initiation of Watchman campground rehabilitation.

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<sup>2</sup> National Park Service, *Environmental Assessment Bicycle Trail Headquarters Area, Zion National Park* (Washington: Government Printing Office, 1993), 5

<sup>3</sup> National Park Service, *Environmental Assessment Bicycle Trail Headquarters Area*, 18.

<sup>4</sup> National Park Service, *Interpretive Plan*, 38.

<sup>5</sup> National Park Service, *Environmental Assessment*, 17.

Phase 3 – Emergency services facility, remaining shuttle stops, modification of existing visitor center, trail construction between Weeping Rock and Temple of Sinawava, additional campground rehabilitation in Watchman Campground, and acquisition of shuttle buses.

Phase 4 – Completion of campground rehabilitation in Watchman and South campgrounds.<sup>6</sup>

The entire system cost approximately \$32 million. The bulk of the funding came through congressional appropriations. An installment of \$5.2 million in 1995 paid for the 400-car parking lot on what was part of the Watchman Campground and the visitor center built at the park's southern entrance. The initial fleet included 29 buses and 19 trailers. Funding for many of the buses and other operating needs came in the form of a \$6.8 million appropriation in 1998. The NPS hired a private contractor to operate and maintain the buses. Operation and maintenance costs are approximately \$2.5 million per year, which comes from entrance fees, amounting to about \$1 per visitor per year. Some funding for the shuttle system paid for more security in the park. "Our rangers deal with many of the same things you'd find in an urban area," Falvey said.<sup>7</sup>

Funding through congressional appropriations was easier to come by in the mid-1990s than it would be today. "In that era, there was a lot of support for non-pavement solutions with the ISTEA and the TEA-21 Federal legislation," transportation project manager Patrick Shea said.<sup>8</sup> According to Shea, back then

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<sup>6</sup> National Park Service, *Environmental Assessment*, 17.

<sup>7</sup> Smith, "Construction Of Zion Shuttle To Begin in Fall."

<sup>8</sup> Shea, interview.

there was greater support, not only for transportation, but also for capital asset projects within the national park system. At the time, Congress authorized significant appropriations to meet the needs of the National Park Service. The reasonable price tag of the Zion transportation project proved attractive to both the legislative and executive branches. “We worked pretty hard through the planning to keep the sideboards on this so it didn’t explode and balloon in costs, both capital and operating costs,” Shea explained.<sup>9</sup> The planning team worked hard to keep costs down, but inevitably there was some budget escalation. They originally estimated the entire project would cost around \$16 to \$17 million. For example, they started out with the idea that they would use surplus buses from LBJ National Historic Park along with some new ones, but after looking into the option further, they realized the surplus buses would cost too much to refurbish and maintain, so they felt purchasing an all-new fleet would best meet the new transportation system’s needs. The planning team worked hard to keep capital costs down. When costs grew somewhat larger than originally planned, they were able to secure modest budget increases through incremental congressional appropriations. “It was small, multi-year appropriations that were manageable in their size,” Shea explained. “They weren’t particularly large budget targets that people could take pot shots at and there was a lot of constituent support.”<sup>10</sup>

Construction costs were more than \$19.6 million. The money came from a variety of places, in addition to the congressional appropriations. Springdale received \$923,000 from ISTEA (the Intermodal Surface Transportation

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<sup>9</sup> Shea, interview.

<sup>10</sup> Ibid.

Enhancement Act, TEA-21's predecessor) to build shuttle stops in town, and the park received \$2.4 million from TEA-21 for the remaining buses, as well as some traffic design changes and shuttle stops in the upper canyon. The park's fee demonstration program provided \$3.9 million, which included the construction of a bus maintenance facility. In addition, groups such as the Zion National History Association donated \$50,000 for the Springdale shuttle stops. That contribution enabled Springdale to secure \$483,648 of ISTEA funds and \$70,912 from the Utah Department of Transportation (UDOT) towards the first phase of the project.<sup>11</sup> UDOT administered the construction contract in their right-of-way. The Zion Canyon Giant Screen Theater was responsible for \$1.6 million to help build a pedestrian bridge connecting the complex to the park, enlarge its own parking lot to accommodate more visitors and construct a camper store. Today the theater complex features a gift shop, a grocery store, and a Thai restaurant.

Park management originally planned to charge shuttle passengers a fee as they boarded, which the NPS decided might be harder for visitors to swallow. The 1993 Transportation Study even suggested that the public would be more likely to accept the transit system if the Park Service did not charge an extra fee to ride it.<sup>12</sup> Without a fee to ride the shuttle in addition to the regular entrance fee, the transportation system would experience a higher level of ridership, the NPS concluded. To offset operation and maintenance costs, the Park Service raised the per-vehicle park entrance fee from \$10 to \$20 starting January 1, 2000. The NPS

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<sup>11</sup> Fay Cope, Letter to Zion National History Association, December 16, 1996.

<sup>12</sup> Balloffet and Associates, Inc., Zion National Park Transportation Study, February 1993, 27.



distributes the revenue from the entrance fees between the transportation fund and the recreation fee demonstration program.<sup>13</sup> Park visitors do not pay the fee directly, but through a higher entrance fee, making the idea of a “free shuttle” somewhat misleading. Bimstein said the fee increase confirmed that Zion has become one of the crown jewels of the national park system, on par with famous parks such as Yellowstone and Yosemite.

Construction of the actual transportation system began in November 1997. The project built a new visitor center at the site of the former Watchman campground, complete with a shuttle stop, amphitheater, restrooms and a pedestrian bridge over the Virgin River that connects to the big screen theater complex. The Park Service designed the visitor center so it would blend into the natural landscape and retain the park’s rustic architecture theme as well as the town’s historic character. The agency envisioned the visitor center as the hub of the system of unloading and loading visitors traveling to the park. The visitor center buildings and site development blended sustainable practices and materials, including solar panels, cool towers (an evaporative cooling system using natural air flows), trombe walls, passive solar heating, day lighting, and retaining existing vegetation and irrigation ditches for shade and cooling purposes.<sup>14</sup>

The project also included:

1. Reconstruction of the Zion Canyon Scenic Drive-Zion-Mt. Carmel Highway intersection to provide a shuttle stop and vehicle turnaround.

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<sup>13</sup> National Park Service. *Zion National Park Business Plan* (Washington: Government Printing Office, 2001), 10.

<sup>14</sup> SHG, Inc., Value Engineering Report, Zion Transportation System, 1997.

2. Rebuilding the Watchman and South campgrounds to compensate for 80 sites lost by construction of the new visitor center, including upgraded restrooms and electrical hookups.
3. Conversion of the existing visitor center to a human history museum, focusing on prehistoric and pioneer inhabitation of Zion Canyon.
4. Shuttle bus stops in the park at the new visitor center, human history museum, Canyon Junction, Court of the Patriarchs, Zion Lodge, The Grotto, Weeping Rock, Big Bend and the Temple of Sinawava.
5. Construction of a bus maintenance shed inside the park at Sammy's Canyon near the Watchman trailhead.

Park planners foresaw Springdale as the location of the bus maintenance facility in order to avoid conflicts with the park environment, but “the sheer size of the building dictated that it [would not] work in town,” Falvey said.<sup>15</sup> They even considered a site as far away as Rockville, but a facility so far away further added too much complexity and more expense to the project. Instead, the park service built the facility near the Watchman Campground in Sammy's Canyon. Construction included a maintenance building, a fueling facility, and shuttle bus and employee parking. The maintenance building is also home to administrative offices and a vehicle repair shop. Since there would be activity at the bus barn after the shuttle's final run at 10 p.m., the structure included soundproofing and minimal outside lighting. The Environmental Assessment envisioned that 80

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<sup>15</sup> Christopher Smith, “Zion National Park Raises Rates To Finance Public Transit System,” *The Salt Lake Tribune*, December 24, 1999.

percent of the water used for vehicle washing would be recycled and that pavement surface runoff around the bus maintenance facility would be filtered.<sup>16</sup> Though the idea was a good one, the facility does not use reclaimed water because the quality is too low.

Construction of most of the shuttle stops took place in December 1999, and January and February 2000. The NPS chose this time of the year because it is the period of least visitation. During construction, drivers in the canyon experienced minor delays and one-way traffic. In addition, construction closed the canyon road above Big Bend, which became the second-to-last shuttle stop in the canyon. The NPS constructed the Canyon Junction shuttle stop, where the Zion Canyon Scenic Drive and the Zion-Mt. Carmel Highway intersect, to provide a vehicle turn around. The intersection design allows buses to enter the Zion Canyon Scenic Drive and discourages unauthorized private vehicles. Finishing treatments of the area blend with the “NPS rustic” architectural theme of Zion National Park utilizing native sandstone and wood.<sup>17</sup>

The NPS planned and constructed the parking area and visitor center using sustainable design principles for energy flow and conservation that complement existing park architecture. The Park Service built these structures and the emergency services building in existing disturbed areas. The locations of the emergency services building and the bus maintenance facility in Sammy’s Canyon minimized their visual impact on the view of the Towers of the Virgin. Vegetation partially screens views of the bus maintenance facility from the access

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<sup>16</sup> National Park Service, *Environmental Assessment*, 17.

<sup>17</sup> *Ibid.*, 10.

road to the Watchman Trail. A major means of reducing the visual impact of the transportation system was the placement of many of the parking areas outside the park, decreasing the number of parking spots needed in the park from 575 to 400.<sup>18</sup>

Fortuitously, around the same time the transportation system plans emerged, the Utah Department of Transportation (UDOT) started to engage in sustainable solutions, beyond just more pavement, to meet some of the state’s transportation needs. The director of UDOT at the time, Dale Peterson, was a strong champion of sustainable development and sustainable planning in transportation environments. Shea said the project became the coming together of a few entities – UDOT, the community of Springdale, and the National Park Service – looking at some common problems and asking, “How can we work together?”<sup>19</sup>

Despite Peterson’s favorable attitude, some of UDOT’s traditional, long-tenured engineers essentially said to themselves, “We don’t design shuttle stops and right-of-ways. We design roads.”<sup>20</sup> Implementation of this type of project was foreign to UDOT – it was a cultural challenge. Many within the agency opposed narrowing the roadway in places and constructing traffic-calming islands. Moving traffic calming islands to pedestrian crosswalks right up to the edge of the yellow lines at the brink of the travel lane and reducing the shoulder was unheard of for

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<sup>18</sup> National Park Service, *Environmental Assessment*, 34.

<sup>19</sup> Shea, interview.

<sup>20</sup> Ibid.

the agency. “They were having heartburn over that,” Shea mused.<sup>21</sup> Fortunately, in the end, UDOT, as a whole, acquiesced.

Thanks to UDOT’s flexibility, State Highway 9 through Springdale was narrowed from 40’ to 32’ at four locations where pedestrian crossings and bus shelters matching those found in the park were installed. The roadbed, curbs and sidewalks were colored red to minimize the visual impact on the natural landscape and to create a seamless experience for visitors traveling through town into the park. These streetscape enhancements improved street safety and represented a major step towards restoring the town’s historic appearance.

The NPS completed the majority of the construction of the transportation system in historically disturbed sites such as fields or roadways. It constructed all the proposed shuttle stops in existing parking areas directly adjacent to the road to minimize disturbance to historic and natural resources.<sup>22</sup> The transportation system did not negatively impact any threatened or endangered species of animals. The shuttle stops and comfort station at the lodge were built on previously paved surfaces and exacted minimal or no disturbance to soils. Approximately 75 percent of the site where the shuttle bus maintenance facility was constructed was used for the storage of fill and other landscaping material such as sand, gravel and rock. Construction, however, did adversely affect a few small patches. Construction of the emergency services building removed 1.3 acres of vegetation and paving and structures. Paving and structures associated with the bus maintenance facility removed 2.5 acres of native and non-native vegetation,

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<sup>21</sup> Shea, interview.

<sup>22</sup> National Park Service, *Environmental Assessment*, 41.

including nine mature trees. The redesign of the Watchman Campground for the visitor center, however, resulted in the re-vegetation of 13.5 acres of land.<sup>23</sup>

Construction made every effort to avoid impacts (visual, audible, and physical) to any known ethnographic resources. In Zion Canyon, construction of shuttle stops visually altered existing pullouts and parking lots by erecting signs, shade structures, benches, and visitor facilities. In building the shuttle stops, crews replaced the asphalt on the road with concrete braking pads to prevent ripples in the road surface from occurring under repeated stopping. The NPS mitigated impacts to potentially eligible landscapes at the visitor center, park administrative offices and in Zion Canyon to ensure that new design elements are compatible with existing features. The designs followed the *Secretary of the Interior's Standards for Treatment of Historic Properties* due to the Zion Canyon Scenic Drive's inclusion on the National Register in 1996. Contributing features to its inclusion included parking areas, curbing, culverts/inlets, and bridges. The segment of the Virgin River through the study area is considered eligible for recreational classification under the Wild and Scenic Rivers Act. The development of the transportation system did not detract from the recreational character of this stream segment.<sup>24</sup>

Under the proposal, the design team made every effort to avoid archaeological sites and qualified archaeologists monitored for potential impacts to subsurface archeological resources.<sup>25</sup> Zion Lodge, the Grotto Picnic Area and the Temple of

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<sup>23</sup> National Park Service, *Environmental Assessment*, 22-23.

<sup>24</sup> *Ibid.*, 29-40.

<sup>25</sup> National Park Service, *Environmental Assessment*, 38.

Sinawava shuttle stops, however, impacted several eligible historic structures and trails by adding new architectural and structural features within the historic scene.<sup>26</sup>

In the construction of the shuttle stops, the park followed the recommendations of the 1993 Transportation Study, almost to a tee. The study stated that shuttle stops only needed a sign denoting the stop name and that shelters at all transit stops were not necessary for protection from weather conditions and might actually interfere with the natural quality of the canyon. It also recommended pavement markings to identify shuttle stops and that benches would be a “helpful amenity” for waiting passengers.<sup>27</sup> The study did suggest the Visitor Center and Zion Lodge shuttle stops should include shelters to better identify them because the largest number of riders would board at the two locations.<sup>28</sup> Those two stops do have shelters today, along with the Temple of Sinawava, the last stop in Zion Canyon and trailhead to the Riverside Walk, otherwise known as “Gateway to the Narrows.”

Some Springdale businesses proved adversarial during the construction of shuttle stops in town. For example, Zions Bank disapproved of the size of the shuttle stop directly in front of its building, opposing an overhang from the shuttle stop onto its property. To try to put the bank’s objections to rest, Shea made personal presentations to corporate staff in Salt Lake City, touting the benefits of the traffic calming streetscapes and the transportation system in general to the

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<sup>26</sup> National Park Service, *Environmental Assessment*, 42.

<sup>27</sup> Balloffet and Associates, Inc., *Transportation Study*, February 1993, 24.

<sup>28</sup> *Ibid.*

bank's business. Unfortunately, the presentation was not successful. "If you carefully go down into Springdale and look, you'll see that the back end of the shuttle shelter has been shortened so that there is no overhang onto the Zions Bank property," Shea said. "Other businesses were probably less enthusiastic about having shuttle stops in front of them. They thought it was going to be more of a distraction. (They) were at best, quiet, at worst, antagonistic, or somewhat pessimistic."<sup>29</sup> Interestingly, some businesses such as the Desert Pearl Inn, who refused a shuttle stop at first, today wished they had one.

For added convenience to shuttle passengers, the park and town decided to build flag stops, where shuttle drivers would stop only on request, after the shuttle's first season. Businesses that originally requested a shuttle stop realized that instead of cars driving past their businesses at approximately 30 miles an hour, the shuttle would drop potential customers right at their doorstep every six minutes.

### The Bus Fleet

The planning and design team members did not order conventional buses for the shuttle system. Instead, after much consideration, they special ordered the buses they felt would be the best fit. For example, climatic considerations went into choosing bus design because of Zion's variations in climate, which run the gamut from hot summer days to cold and rainy fall days. They chose a bus design with many windows for better ventilation and viewing. "We wanted something

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<sup>29</sup> Shea, interview.



that could be open, could be well-viewed, but reflected the weather changes even in the course of the day,” Shea said.<sup>30</sup> The team decided not to include air conditioning on the buses from the very beginning because an air conditioning system would add to the weight of the busload, requiring a larger engine. Air conditioning would also increase energy costs and noise. One of the aims of initiating shuttle service was to decrease noise pollution in the canyon. “Now, there are times when you’re warm, and maybe there are times when there are a lot of people and they’re all heading down canyon that it gets a little crowded and it gets a little uncomfortable,” Shea explained. “But once that bus is moving, usually there’s enough air moving through.”<sup>31</sup> The airflow created by opening all the windows and the vents on the roof is sufficient to keep the temperature on the bus bearable. “We didn’t want to make it so comfortable that people would stay on the shuttle and never get off,” Shea concluded.<sup>32</sup>

The team also had to decide on the buses’ fuel source – something that was environmentally friendly. “We thought about electric and fuel cells. All these things that sounded really good on paper, but when you went out to find one they really weren’t available and hadn’t reached the developmental stage yet,” said Dave Karaszewski, the park’s facility manager during shuttle implementation.<sup>33</sup> Karaszewski explained that the team’s first choice was natural gas-powered buses. However, setting up natural gas refueling was hugely expensive, so the

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<sup>30</sup> Shea, interview.

<sup>31</sup> Ibid.

<sup>32</sup> Ibid.

<sup>33</sup> Dave Karaszewski, (Former Facilities Manager, Zion National Park), interview with author, September 21, 2006.

team settled on propane, which Karaszewski said is easier to handle than natural gas and is very low in pollutants.

The team decided on buses with trailers, which would double rider capacity and only require one bus driver. For the color of the buses, the park service chose the darkest white possible, so reflection off the vehicles would not be so bright. With all the dirt the shuttles would attract, the park chose a darker color for the bottom of the buses, a brown color that covers dirt pretty well, Haraden said.<sup>34</sup>

### Increasing Interpretation Efforts

In order for locals to buy into the shuttle system, the Park Service initiated programs designed to spread the word and help alleviate concerns. Zion staff conducted tours with local businesspeople in March and April of 2000 to explain how the system would work. “We were real pleased with ourselves,” said Tom Haraden, Assistant Chief of Interpretation in the park, about the process.<sup>35</sup> Unfortunately, Haraden confessed, these business owners sometimes placed all of the materials Zion officials gave them in their filing cabinets and hardly told anyone about it, as the park had hoped. Zion personnel also offered training sessions at community meetings, at lunch hours, and at restaurants and hotels so those that really needed to know about the shuttle would know about it.<sup>36</sup> Immediately after shuttle service began, the park gave Springdale workers free day passes to the park so they could see how the shuttle worked. Many took

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<sup>34</sup> Tom Haraden (Assistant Chief of Interpretation, Zion National Park), interview with author, September 21-22, 2006.

<sup>35</sup> Ibid.

<sup>36</sup> The Road to Tranquility.

advantage of the vouchers. “That was thinking outside the box for the government,” Haraden noted.<sup>37</sup>

At the shuttle’s inception, the park used various forms of interpretation to target specific audiences. For instance, park staff contacted tour bus companies six months before shuttle service began and created a brochure for bus drivers that provided information on where they could park and what they should tell their passengers. The brochure tells bus drivers to park at the designated bus parking spaces at the Zion Canyon Giant Screen Theater or the lower lot of the Zion Human History Museum and explains that they cannot unload or park in front of the museum. It instructs drivers to pay the entrance fee at the pedestrian entrance station right after the footbridge leading from the Giant Screen Theater parking lot. After paying the fee, the driver or guide gives each passenger reentry stickers. Park staff also offered drivers a DVD about the park they could purchase to show passengers on the way to the park. These items and the information they provided allowed each driver to be the ‘hero,’ Haraden said.<sup>38</sup> In addition, the interpretation department also created cards detailing how the shuttle affected bicyclists that it placed in bike rental locations and entrance stations.

Throughout the planning effort, the NPS decided to allow Zion Lodge patrons arriving by private vehicle or tour bus to drive to the lodge to check in and drop off luggage, but once there, they must ride the shuttle any time they tour the canyon.<sup>39</sup> Other park visitors allowed to travel up the canyon as far as Zion

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<sup>37</sup> Haraden, interview.

<sup>38</sup> Ibid.

<sup>39</sup> National Park Service, *Environmental Assessment*, 9

Lodge are tour bus passengers planning to eat lunch or dinner at the Lodge. The park prohibits tour buses from traveling farther than Zion Lodge under any circumstances. The park's division of interpretation instructs tour bus drivers to adhere to a speed limit of 20 miles per hour – the same speed the shuttles travel. Park personnel instruct motor coach operators not to pass the shuttle buses and not to stop at any shuttle stops.

Each shuttle bus has advertisement space, but without commercial advertisements. Instead, the spaces feature a map of the shuttle system, which is much like the maps of public transit systems displayed in subway cars in metropolitan cities throughout the nation. Every bus displays a “do not feed the animals” message. Each bus features a graphic of an animal or plant on it. Inside the bus, visitors can read a brief message about that specific animal or plant. Haraden explained that his staff had not thought about a budget for graphics on the buses soon enough, so funds to pay for the graphics had to come out of the interpretation budget. He said that in the future the backs of the buses would carry messages such as “carry enough water,” “park in Springdale” and “do not feed the animals.”

Initiating shuttle service required the placement of numerous wayfinding signs to help visitors find their way along the shuttle system. The interpretive team spent a year developing these signs, which Biesek Design, a firm based in San Luis Obispo, California, that specializes in wayfinding signs, designed. Interestingly, the National Park Service now has its own standard for signage for consistency's sake, but the Zion shuttle signs were created before the policy went

into effect. The signposts are made of Cor-ten steel, commonly referred to as “rusting steel.” Requiring little maintenance, this type of steel never requires painting. The signs themselves are covered in porcelain enamel with reflective vinyl letter decals for built-in changeability. The morning after the shuttle ends for the season, Haraden and his interpretive staff cover any signage about the shuttle system with magnets so off-season visitors are not confused. The 1993 Transportation Plan even touted the need of enabling the signs to be covered. The NPS made it so changing the signs would not require any tools.<sup>40</sup>

Shuttle system construction proved a boon for interpretation within the park. It provided funding for new wayside exhibits, a new brochure, and a new movie for the visitor center and the park’s human history museum. These new interpretive materials tied park history and geology into themes in order to present a more cohesive message. For example, the new movie produced through funding received from the shuttle system features the Virgin River as its cohesive theme. The first informative panel at the park’s human history museum describes Zion as a sanctuary and the last one’s theme is “maintaining sanctuary.”<sup>41</sup>

Other interpretive benefits resulting from the shuttle system are the outdoor panels at the visitor center, which answer visitors’ common questions, such as: “What is there to do?” and “What is the best trail?” These large and colorful panels, as Haraden explains, “show visitors the menu.” They contain information about the park’s major landmarks, such as The Great White Throne and the Court of the Patriarchs. They also provide summaries of each trail, showing distances,

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<sup>40</sup> Haraden, interview.

<sup>41</sup> Ibid.

difficulty level, and the scenery visitors will see while hiking. This provides visitors the chance to choose a trail based on how much time they have to spend, their fitness level, and what they want to see. One of the panels outside the visitor center even explains the need for the shuttle system, complete with a photograph of the traffic gridlock common during summers in the 1990s. Another includes an aerial photo labeling the locations of major landmarks and nearby peaks visible from the shuttle. Interpretive staff hoped that by the time visitors reach the visitor center, they would have already obtained basic information from the exterior exhibits on using the shuttle system and the variety of experiences the park offers.<sup>42</sup>

In the summer of 1999, the park estimated the new visitor center, built as part of the transportation system, would increase the number of people seeking assistance at the facility three to five fold because the transportation system would require them to stop there in order to board an up-canyon shuttle. Park managers foresaw the new visitor center attracting up to 6,000 people a day in the shuttle's first year. A funding request in July 1999 asked for more money to hire a "Shuttle Operation Liaison," to provide contract oversight and evaluation of the shuttle system, and five more interpretation staff members, to meet the need for expanded hours and shift in visitation patterns shuttle operations would cause. It even called for two more seasonal backcountry permit staff, foreseeing that the transportation system would increase requests for backcountry permits.<sup>43</sup>

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<sup>42</sup> National Park Service, *Interpretive Plan*, 52.

<sup>43</sup> National Park Service, Operations Formulation System Funding Request, Zion National Park. July 23, 1999.

Requiring park patrons to pass by the visitor center has had a tremendous impact on interpretation. Today, visitors seeking information can find it more conveniently, generally without having to worry about finding a parking space or standing in line wasting precious time they could use exploring the park. The transportation system and new visitor center have fostered more efficient park interpretation and increased visitor satisfaction of the park's interpretive methods.

## CHAPTER 6

### SHUTTLE OPERATIONS

“All Aboard For Zion 2000” read the heading on the program for the grand opening of the Zion Canyon Shuttle System on May 26, 2000. The program stated:

The congestion, noise, pollution, and associated resource damage suggested that we go ‘back to the future.’ Beginning today, we visit Zion Canyon by shuttle to restore the tranquility and power of the early days of Zion National Park.”<sup>1</sup>

Senator Bob Bennett, NPS deputy director Jacqueline Lowey, and former NPS regional director Lorraine Denning attended the grand opening, as did other federal and state dignitaries. The grand opening ceremony reflected back on the National Park Service’s transportation history. The event included a 1930s Yellowstone bus, which was similar to the buses used in the Grand Circle Tour of the 1920s and 1930s. Speakers recounted how Zion was a part of the Grand Circle Tour, as well as expressed their appreciation for partners in the project such as UDOT and ZNHA.

True to its stated purpose, from day one the shuttle system softened the impact of visitation on the park while still giving visitors a quality experience. With that goal in mind, Marcia Argust, head of the transportation program for the nonprofit National Parks Conservation Association, believes the Zion plan is right on the mark. “It will be a real success story because the park worked with the

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<sup>1</sup> National Park Service, *All Aboard for Zion 2000*, Program for the Zion Canyon Shuttle System Grand Opening, May 26, 2000.



community and accommodated the public's needs," she said.<sup>2</sup> The shuttle system "has been like a breath of fresh air," Falvey said after its first two months. "The decrease in the noise level is incredible, and more wildlife has become visible. The park is now a quiet experience and people have been treating the canyon with reverence. It is really a completely different experience now. There is the same number of people, but no cars."<sup>3</sup>

"People could actually hear the river from Angels Landing," Shea remarked on the quiet in the canyon the shuttle created.<sup>4</sup> Dick Doty, owner of Canyon Offerings in Springdale, said he was amazed to see animals such as wild turkeys, mountain lions, and coyotes again.<sup>5</sup> There is also much less carnage on the road since the shuttle system began. One visitor from California remarked, "I stepped off a shuttle bus at the Grotto. After it pulled away, the incredible silence of those majestic canyon walls engulfed me. Zion is sublime now."<sup>6</sup> Assistant Chief of Interpretation Tom Haraden noted that during the shuttle's first weekend, he observed visitors disembarking at Weeping Rock shushing each other, whereas the weekend before, people could not even hear themselves talk.<sup>7</sup> "There is almost a hushed reverence when people get off the bus," Haraden said.<sup>8</sup>

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<sup>2</sup> Rebecca Retzlaff, "Buses Replace Private Cars On Zion Park Scenic Drive," *Planning*, July 2000.

<sup>3</sup> Retzlaff.

<sup>4</sup> Ibid.

<sup>5</sup> The Road to Tranquility: The Zion National Park, Springdale, Utah Story. U.S. Fish and Wildlife Service. National Conservation Training Center.

<sup>6</sup> Diane T. Liggett, "Quiet in the Canyon," *National Park Service Sustainability News*, Fall/Winter 2002, 13.

<sup>7</sup> The Road to Tranquility.

<sup>8</sup> Liggett, 13.

In its first season of operation, the Zion Canyon Shuttle System was an overwhelming success to park staff, visitors and Springdale residents. “Today, it was peaceful at the Temple of Sinawava [at the top of the Zion Canyon Scenic Drive]. I have never experienced that peacefulness before,” wrote Gary Thorne, of Spokane, on a visitor comment card.<sup>9</sup> Though some people feared a shuttle would discourage visitors from coming to the park, visitation during the summer of 2000 was slightly above average. Roughly the same number of people toured the park during the peak season the year the shuttle began as did the year before, but visitors riding the shuttle enjoyed peace and quiet in the canyon, while visitors the summer before experienced overcrowding. In addition to providing a less-stressful experience, the shuttle has encouraged visitors to stay longer both in the park and in Springdale. Dean Cook, President of the Zion Canyon Visitors Bureau, said that since the shuttle’s inception, visitors are now staying an average of a full day longer and spending more money in town. “In many ways the shuttle system has slowed people down and they stop and appreciate the beauty of the park,” Bimstein said.<sup>10</sup> As Shea explained, Springdale businesses are “finding it easier to capture customers at a pedestrian pace than at 30 miles per hour.”<sup>11</sup> Bimstein said that within the shuttle’s first year, sales tax revenues in Springdale went up 5 to 10 percent at a time when visitation to other national parks was down by 30 percent.<sup>12</sup>

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<sup>9</sup> Brent Israelsen, “Zion Park Shuttle Bus Gets Good Marks in First Month,” *The Salt Lake Tribune*, June 30, 2000.

<sup>10</sup> The Road to Tranquility.

<sup>11</sup> Kim Sorvig, “Renewing Zion,” *Landscape Architecture*, February 2002, 77.

<sup>12</sup> The Road to Tranquility.

Cook said that shuttle passengers also talk about what shops and restaurants they have frequented and where they are staying, which has been a positive force to the town's economy. The shuttle can play the role of designated driver for those frequenting the town's pubs since the last departure of the day is around 11:15 p.m. The shuttle has also been a positive force aesthetically. Town shuttle stops share the style and materials of the stops in the park. This visual unity helps visitors identify the town of Springdale closely with Zion. It also creates a park gateway community with little tourist-trap tackiness.<sup>13</sup>

In the shuttle's first week of operation, Springdale residents began utilizing it for daily errands and going to church. Even school children use the shuttle to get to the library and other destinations. The children feel safe on the shuttle and the children's parents feel safe allowing their children to travel on the shuttle because the shuttle drivers know the children and watch out for them.<sup>14</sup>

Not only do Springdale residents use the shuttle for their transportation needs, they are ambassadors of the system, which has also helped them espouse the values of national parks. The shuttle's inception in Springdale engaged local residents in a much different way than it would have had a more traditional solution been implemented. Shea said that Springdale residents have helped spread the park values outside park boundaries. "If you go into Springdale today and people ask about the transportation system, there are scores and scores of people that will tell you about it," he explained.<sup>15</sup>

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<sup>13</sup> Sorvig, 77.

<sup>14</sup> Haraden, interview.

<sup>15</sup> Shea, interview.

The shuttle system has signaled a significant change in the nature of Zion National Park's expenditures. The cost of personnel has steadily increased, but has decreased as a percentage of overall expenditures, which is almost entirely attributable to the spike in 1998 that occurred because of the investment in the shuttle system.<sup>16</sup> Although the NPS contracted with a professional operator, the Facilities Operations program oversees all aspects of the management of the contract. The operational costs of servicing the shuttle buses are accounted for in the Transportation and Fleet Operations Program.<sup>17</sup>

To make the service as convenient as possible, each shuttle has bike racks, is handicap accessible, with lifts and "kneeling" capability, and runs from approximately 5:30 a.m. to 11 p.m. Each shuttle is capable of accommodating 68 seated visitors (31 in the bus and 37 in the trailer). The environmentally friendly shuttles run on propane, which releases fewer emissions and creates less noise than gasoline or diesel powered engines. Large windows and overhead skylights provide stellar views of the canyon walls and facilitate air circulation without the excessive noise created by conventional air conditioners. The shuttle provides a different way for people to enjoy the park in a much more pedestrian and bike-friendly setting.

The shuttle system operates two routes, one through Springdale, and the other along the Zion Canyon Scenic Drive, where private vehicles are prohibited from April to October. The entire shuttle system consists of 15 stops (six in Springdale

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<sup>16</sup> National Park Service, *Zion National Park Business Plan* (Washington: Government Printing Office, 2001), 11.

<sup>17</sup> National Park Service, *Business Plan*, 23.

and nine in the park). The town loop's terminus is the Zion Canyon Giant Screen Theater plaza, which also contains restaurants, a market and other businesses, as well as parking for tour buses. Visitors debarking at the plaza from the town shuttle cross a pedestrian bridge over the Virgin River to the visitor center area. Visitors access the park shuttle from a transit center near the visitor center. Once across the bridge, visitors pay an entrance fee or show their parks pass. One of the main reasons the park and town shuttles are separate is because merging them would have complicated the fee-collecting process. In addition, the separate loops allow the park shuttles to run more frequently and with larger-capacity vehicles than are needed in town since the town shuttle is voluntary and the canyon shuttle is mandatory. Town businesses share underused parking with Zion shuttle passengers, reducing the need for in-park spaces by nearly half. Parking within Springdale is near local motels and restaurants, so visitors can stay put rather than adding to the traffic throughout town.<sup>18</sup>

The Springdale streetscape reflects the rustic architecture found in the park, and has become a near-seamless transition from park and town. The emphasis on pedestrians has caused visitors to slow down mentally as well as physically. The visitor center located just inside the park boundary simplifies the relaxation approach, encouraging visitors to stroll through the facility, gaining an appreciation for the park's resources and learning how best to use the transportation system.<sup>19</sup> The visitor center parking area, which usually is full between 10 a.m. and 3 p.m. on days during the peak season, has 400 parking

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<sup>18</sup> Sorvig, 74.

<sup>19</sup> National Park Service, *General Management Plan*, 30.

spaces, the same number of spots visitors competed for up the canyon before shuttle operations began. Visitors can also leave their vehicles in approximately 1,000 spaces in Springdale, found along the street, close to city hall and at motels. Although the town never built a single parking lot, a contingency plan was in place to clear an alfalfa field next to the Zion Park Inn for additional parking spaces. However, Bruce Vanderwerff, owner of Zion Pizza and Noodle and town mayor after Bimstein, said, “Parking was never full, not even on Memorial Day.”<sup>20</sup>

The National Park Service estimates that in its first year, the shuttle service eliminated 42,000 vehicle trips and a park visitor survey indicated an 85% approval rate for the service. In its first year alone, the Federal Highway Administration estimated that the shuttle reduced vehicle trips per day by an average of 1,183 and reduced vehicle miles traveled per day by an average of 10,877. An average of nearly 3,000 visitors per day boarded the shuttle during its first year of operation. By 2002, annual shuttle boardings (2.35 million) almost equaled park visitation (2.61 million).<sup>21</sup> Therefore, nearly every visitor to Zion National Park boards the shuttle today.

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<sup>20</sup> Liggett, 12.

<sup>21</sup> Federal Highway Administration, *Mitigating Traffic Congestion – The Role of Demand Side Strategies: Zion National Park*, ONLINE, 2004, Available: [http://www.ops.fhwa.dot.gov/publications/mitig\\_traf\\_cong/zion\\_park\\_case.htm](http://www.ops.fhwa.dot.gov/publications/mitig_traf_cong/zion_park_case.htm) [30 March 2005].

### Improvement of the Visitor Experience

One visitor during the shuttle's first year related to Haraden that she parked her car at her hotel the day she arrived and did not see it the three days she stayed in Springdale. Other visitors have recounted similar positive shuttle experiences. One visitor commented that she liked the idea of not having to get in and out of a hot car. Another enjoyed the commentary the shuttle driver provided on the way up the canyon, especially information about trails, saying the narrative was a "mini introduction" to the park. Yet another passenger liked the socialization with other visitors the shuttle creates – sharing tips and experiences about the park as well as exchanging stories about where they have come from, where they have been and what they have done.<sup>22</sup> "That was one of the pleasant surprises – that socialization," Shea said. "I don't think we really understood how interesting the socialization on those shuttle buses truly is until we actually saw it."<sup>23</sup> Many visitors do not even miss the freedom of driving their own automobiles into the park. One shuttle passenger said: "After seeing the limited space for parking and the fairly narrow road, I was happy not to be driving myself. The congestion would have been terrible."<sup>24</sup>

Though not employed by the park, the shuttle drivers are essentially a branch of the park's interpretive staff. Every bus includes an intercom system in both the main bus and the trailer through which the bus driver provides a running narrative. When hired, each driver goes through 160 hours of training, including

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<sup>22</sup> The Road to Tranquility.

<sup>23</sup> Shea, interview.

<sup>24</sup> Russ and Tina DeMaris, "Crowd Control," *Highways*, April 2004, 42.

presentations on the history, geology, wildlife and other aspects of the park. From these presentations, the drivers pick the information they want to present to their riders. The interpretive staff helps the drivers develop their presentations. Some drivers present a thorough narrative. Others do not.

According to the Zion National Park 2001 Business Plan, the shuttle has provided an ideal opportunity for the park to educate its visitors on the richness of its natural and cultural resources.<sup>25</sup> The April 1994 Development Concept Plan for Zion Canyon Headquarters even said that one of the purposes of the park is to provide a variety of opportunities for visitors to learn about and enjoy the resources without degrading those resources.<sup>26</sup> The added information and insight shuttle drivers provide supplements visitors' knowledge and enjoyment of park resources. To make sure park officials completely understand the public's perception of the shuttle, Haraden sometimes dons civilian apparel and rides around in the shuttle just to listen to what park visitors are saying about the shuttle. What he hears, he says, is positive.

Today, Haraden said, over 80 percent of Zion Shuttle users hear about the shuttle via word of mouth. By the third year, the shuttle became better known – visitors knew that the park had it and most did not have a problem with it because of its convenience. The park uses articles and graphics in its quarterly newspaper, *The Sentinel*, as one of the main methods to publicize the shuttle. The park also uses all facets of park staff, from maintenance workers to law enforcement, to get

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<sup>25</sup> National Park Service, *Business Plan*, 7.

<sup>26</sup> National Park Service, *Development Concept Plan*, 10.



word out about the shuttle. The NPS has integrated all of its interpretive materials to contain some information about the shuttle.

The shuttle system has improved the hiking experience. With the end of competition for parking spaces, hikers can now set out at different times of the day.<sup>27</sup> The shuttle system allows would-be drivers of private vehicles the ability to concentrate on the scenery, not the road. The shuttle has allowed park staff to become better interpreters. “They can be rangers that truly help when help is needed as opposed to breaking up fistfights over parking spots,” Shea said.<sup>28</sup>

At first, the NPS wanted an interpretive ranger on each bus to supply a running narrative of the scenery during the drive through the canyon. Budget constraints have forced the bus drivers to supply the narration to passengers. For additional interpretive information, each bus sports pictures of flora or fauna that inhabits the park. For instance, one of the first buses displayed a tree frog. That bus carried information about the tree frog and its role in the Zion ecosystem.

Park interpretive staff came up with the idea for the *Ride with a Ranger* program before the shuttle system began. “We knew that it would be successful, and it is,” said interpretive ranger Frank Hayde. “It has kind of rejuvenated interpretation in Zion in a way.” Tickets for these daily guided ranger tours are available at the visitor center for 30 passengers. The tours provide a sequence of stops that allows visitors to disembark and enjoy a series of presentations. These tours make stops that normal shuttles do not make, providing an exclusive tour –

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<sup>27</sup> National Park Service, *Development Concept Plan*, 43.

<sup>28</sup> Shea, interview.

visitors see things they otherwise would not. These tours are themed around park resources, including plants, animals and geology.<sup>29</sup>

A typical ride on the shuttle from the visitor center to the Temple of Sinawava, the last stop in the canyon, covers eight miles and takes approximately 45 minutes. The ride, depending on the bus driver, can be entertaining and informative. Drivers expound on the park's geology, explaining things such as how the park's hanging gardens are formed and that the Virgin River is one of the few undammed rivers remaining in North America. They also tell their riders about Zion's flora and fauna, explaining that *Datura stramonium*'s (more commonly referred to as gypsum weed) trumpeting flowers are poisonous and mentioning that the park's beavers make their homes in the river's banks. In addition to providing interesting tidbits about the park throughout the ride, bus drivers have become a valuable resource in getting the word out about park rules and other essential visitor information. After riding the shuttle from the visitor center to the end of the line, visitors will know that the NPS prohibits swimming in Emerald Pools. They will also know which shuttle stops include restrooms. Some drivers even provide a little comic relief. On a Thursday in late September 2006, after pulling out of the Zion Lodge stop towards the visitor center, a driver said, "If you thought you were going to Temple of Sinawava, Las Vegas, Salt Lake or Disneyland, you're going to be disappointed."

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<sup>29</sup> Liggett, 13.

## Environmental Impacts

The Development Concept Plan for Zion Canyon Headquarters in April 1994 stated one of park management's objectives: "Visitor facilities and services accommodate and are designed and maintained for sustainability and environmental sensitivity to ensure nondegradation of park resources."<sup>30</sup> Implementation of the shuttle system has ensured that park resources do not suffer the degradation they did before the shuttle.

Without the shuttle system, a shortage of parking spaces would have continued, resulting in increased erosion along roadsides that would have led to soil and plant loss. The continuation of private vehicles in the canyon would have resulted in further denudation along eight miles of roadside from off-road parking, the 1997 Environmental Assessment concluded. Vehicle emissions containing cadmium, manganese, lead, and zinc would have continued to accumulate in vegetation and soil.<sup>31</sup> Nitrous oxide levels have increased because of the relatively high emissions associated with propane fuel compared to gasoline-powered vehicles, but the shuttle system has reduced on-road vehicle volatile organic compounds, carbon monoxide, and particulate emissions.<sup>32</sup>

The Environmental Assessment went on to say that the shuttle system would improve water quality by reducing off-road parking, which increases erosion that introduces sediment into the waterways. The combination of fewer individual vehicles and the use of propane fuel have improved air quality in Zion Canyon.

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<sup>30</sup> National Park Service, *Development Concept Plan*, 11.

<sup>31</sup> National Park Service, *Environmental Assessment*, 21-22.

<sup>32</sup> Liggett, 14.

However, vehicle emissions are now more concentrated around the parking lots in the Watchman Campground and visitor center. Zion National Park is designated a class I area under the Clean Air Act. This designation allows air quality characteristics, including visibility, to be degraded the least compared to other Clean Air Act designations.<sup>33</sup> Although the park's shuttle system has helped to reduce air pollution in Zion Canyon, increased vehicular traffic in Springdale and other parts of the park may increase air pollution.<sup>34</sup>

Implementation of the shuttle system even considered light pollution. Lighting for the bus maintenance facility is minimal during hours of non-operation and of low intensity during hours of nighttime operation. The Canyon Junction area has no lighting in order to reduce the impacts to the night sky.<sup>35</sup>

The transportation system has significantly reduced noise levels in the canyon as well as noise pollution at elevated viewpoints from canyon traffic. In addition, the shuttle buses have quieter engines than typical tour buses. The NPS designed the bus maintenance facility to minimize noise transmission.<sup>36</sup> On the other hand, noise levels have increased around the visitor center, Watchman parking area, shuttle bus maintenance area, and at the eight shuttle stops in the park, due to the movement of the buses and the human sounds associated with loading and unloading passengers. Park managers will follow several strategies to control existing and potential land-based noise sources:

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<sup>33</sup> National Park Service, *General Management Plan*, 10.

<sup>34</sup> *Ibid.*, 26.

<sup>35</sup> National Park Service, *Environmental Assessment*, 32-33.

<sup>36</sup> *Ibid.*

- Continue operating the shuttle system and eventually prohibit tour buses in Zion Canyon, which will reduce noise levels and eliminate the greatest source of noise in Zion Canyon.
- Continue to require bus tour companies in Zion to comply with regulations that reduce noise levels (e.g., turning off engines after parking buses).<sup>37</sup>

Through the operation of the shuttle system visitor use levels are somewhat regulated in Zion Canyon. The shuttle system has eliminated much of the vehicle congestion and parking problem, which was one of the primary carrying capacity problems in Zion Canyon. Changes in visitor use patterns because of the Zion Canyon shuttle system is one of the in-depth social data the park must study.<sup>38</sup>

Another way the shuttle has made an environmental impact is increasing the environmental awareness of each passenger. Visitors receive a multifaceted environmental message when they ride the shuttle. In addition to providing passengers interesting information about the park, bus drivers let visitors know the dos and don'ts, such as "Do not feed the animals," and "Stay on established trails." The energy efficiency of the visitor center sends visitors a message. The buses' fuel sends a message as well. Each bus features a sign telling visitors that propane powers the buses. Propane is a quieter and cleaner burning than gasoline. The quiet in the canyon and the resurgence of wildlife since the shuttle's inception also sends visitors a message. Shea said he hopes visitors get back in their cars after their visit to Zion and think about how they can be more

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<sup>37</sup> National Park Service, *General Management Plan*, 13.

<sup>38</sup> *Ibid.*, 36-37.

environmentally conscious in daily life. “We advance the [National Park Service’s] mission accordingly, every opportunity that we have,” he said.<sup>39</sup>

### Shuttle System Challenges

Despite its initial widespread acclaim, the shuttle system experienced several problems its first year. The park had to adjust the shuttle schedules to accommodate larger-than-expected morning crowds. The signs at the mouth of Zion Canyon warning people of the restrictions on automobiles did not work as well as expected. Many motorists ignored the signs or did not understand them, forcing the NPS to replace the signs with a gate the next season. Another concern during the shuttle’s first summer was that not enough visitors used the shuttle service from Springdale, because the visitor center parking lot filled up regularly by late morning. Though the visitor center parking lot saw a lot of traffic, many visitors bypassed the visitor center and hurried directly to the shuttle stop. Some passengers complained that buses did not have enough bike racks. Each bus accommodates just two bikes. The buses have no storage lockers for those wishing to bring a picnic lunch to eat after a morning hike. One tremendous challenge of the shuttle was instructing visitors to carry everything they would need – such as water bottles, snacks and sunscreen – with them when they boarded the bus. Bike safety also turned into an issue. The shuttle system’s policy now prohibits drivers from passing bicycles. Bicyclists, in turn, cannot pass buses. Bumper stickers reading, “DO NOT PASS BUSES,” specifically target bicyclists.

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<sup>39</sup> Shea, interview.

One bus driver said he felt like he spent more time explaining the shuttle than driving it. Visitors familiar with municipal bus systems expect the connecting loops to share a bus stop. Few object to the walk between Zion's shuttles, but many are confused at first. Equally bewildering, all buses and stops on both loops bear the same sign: "Zion Canyon Shuttle."<sup>40</sup> Visitors are also confused with the parking situation. When they cannot find a space in the visitor center parking lot, they turn to the Zion Canyon Giant Screen Theater plaza, but all the parking there is reserved for the cinema, other plaza businesses, and tour buses. The Park Service encourages visitors to park in several in-town lots, but most of the time drivers arriving from the south do not catch on. One of the reasons for this is that parking lots set aside specifically for shuttle passengers' cars are labeled "Shuttle Parking," which usually (at airports, for example) means private cars are prohibited. Simple word revisions would fix this problem. Another problem is that drivers have no way of knowing whether lots ahead of them are full. Simple interactive signage at each lot could help, updated by the bus dispatcher via radioed reports from shuttle drivers. One other potential problem is that most town parking is either on business-owned land or within public highway right-of-way. Except where zoning variances were exchanged for parking use, no legally binding agreements ensure the future of in-town shared parking. Experience shows that successful public-private partnerships must anticipate attempts to revoke even the best plans.<sup>41</sup>

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<sup>40</sup> Sorvig, 77.

<sup>41</sup> Ibid., 78.

One of the continuing challenges the shuttle system has faced is teaching visitors to park in Springdale. “People want to park as close as they can,” Haraden said.<sup>42</sup> Most of the time, the town shuttles display signs telling visitors to park in Springdale because the visitor center parking lot is full, even if, in reality, the lot is not filled to capacity. This practice encourages visitors to park in Springdale where some businesses, such as the Driftwood Lodge, have provided parking spaces specifically for shuttle riders. Visitors parking in Springdale usually encounter far fewer hassles finding a parking space than those who venture into the visitor center parking lot.

In retrospect, Haraden feels that NPS staff did not make many mistakes in the shuttle’s implementation. One mistake he did mention is the fact that the entrance to the visitor center parking lot is at the back of the building, leading some people to miss the visitor center altogether. The visitor center sits the way it does because the NPS wanted the front of the building to be a pedestrian friendly environment. Signage proved another mistake, but unlike the position of the visitor center, park staff could change it. Haraden said his staff has changed approximately 25 percent of the signs after the shuttle system’s first year. For example, early on there was no signage directing people to the town shuttle from the visitor center. Haraden explained that during the first year some people would park, see a bus, board it, then find out it was going into Springdale instead of the canyon, where they wanted to go. Park staff installed a large sign labeling the town shuttle terminus after the first season. There were also no signs telling visitors that they were

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<sup>42</sup> Haraden, interview.



leaving the park when they walked across the footbridge at the pedestrian entrance towards the Zion Canyon Giant Screen Theater. In some cases, signs had to be moved to more obvious locations where visitors would be more likely to see them. The park's goal was a seamless transition between park and town, but "in a way, we succeeded too much," Haraden explained.<sup>43</sup>

Another minor mistake was the arrangement of the windows in the buses. The 1997 Environmental Assessment stated, "shuttle buses within the park will be designed to allow views of surrounding scenery."<sup>44</sup> "Probably the most common negative comment is the design of the shuttle buses, in that they were not designed, oddly enough, for good viewing, for good picture taking," said Jack Burns, Acting Chief of Resource Management and Research. "You've got these kind of narrow windows with lots of bars and it interferes with the picture you're taking."<sup>45</sup> Burns said when Zion starts replacing buses in 2009, window placement will be a key consideration.

Judith Rozelle, former chief of concessions in Zion, was not timid in expressing what she considered the shuttle system's mistakes. One of the first mistakes she mentioned was that the team in charge of choosing the buses, which included Shea and Karaszewski, created their own bus. "We should have just modified some existing buses instead of ending up with prototypes," Rozelle

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<sup>43</sup> Haraden, interview.

<sup>44</sup> National Park Service, *Environmental Assessment*, 10.

<sup>45</sup> Jack Burns (Acting Concessions Management Chief and Acting Chief of Resource Management and Research, Zion National Park), interview with author, June 21, 2006.

explained.<sup>46</sup> If Rozelle would have been in charge of choosing the buses, she would have made them air conditioned, designed the windows for better viewing, and omitted the decals, which she said are “getting chewed up by the weather and we don’t have enough money to replace them.”<sup>47</sup> She was especially critical of the lack of air conditioning and the window design. She said she heard someone say the buses were “cooking” their passengers. One of the members of the Denver Service Center design team said he liked the windows because they provided the visitor vignettes of the high walls. To that, Rozelle retorted, “but you don’t want vignettes, you want to see the walls.”<sup>48</sup>

One shuttle inconvenience for some guests is that it does not allow pets. Haraden explained that before the shuttle began the park contacted other locales that utilize shuttles to find out what the Zion Shuttle system should forbid and each of them said to prohibit pets because they are prone to lawsuits. A pet boarding facility between Springdale and Rockville is available for the convenience of visitors.

Any undesirable aspect visitors express about the shuttle Haraden says he can counter by explaining its ease of use and its handicap and bike accessibility. “People are getting the hang of it,” Haraden said, adding that visitors quickly learn that they do not have to run because shuttles come so often and schedules for each stop are flexible to allow change, if needed.<sup>49</sup> During the peak season,

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<sup>46</sup> Judith Rozelle (Former Concessions Management Analyst, Zion National Park), interview by Logan Hebner, April 21, 2003.

<sup>47</sup> Rozelle, interview by Logan Hebner.

<sup>48</sup> Ibid.

<sup>49</sup> Haraden, interview.

shuttles come every six minutes. Parks Transportation, the shuttle's operator, adjusts spring and fall shuttle schedules according to park visitation.

#### Parks Transportation, Inc. – The Transportation Contractor

Parks Transportation, Inc. (PTI), a subsidiary of McDonald Transport, operates the 30 NPS-owned propane-powered shuttle buses and their 21 accompanying trailers. When choosing the three finalists to operate the shuttle system, Laidlaw, Ryder and McDonald, Rozelle said that after the transportation committee (which included she and Karaszweski) met with the contingent from McDonald (which included Kirk Scott, who would eventually run the shuttle system), they felt the synergy was right. She said the other contenders had their public relations personnel do the talking. They felt they came to know the McDonald team well and that McDonald knew what it was doing.<sup>50</sup> “I didn't think it would work as well as it did,” Rozelle said. “PTI did a great job of working with it and modifying it. I don't know if it would work as well without PTI.”<sup>51</sup>

Shea said the planning team put a lot time and thought in understanding all of the conditions the shuttle might face, but knew there would be some things they could not foresee. They hoped there was enough flexibility in the system to accommodate unforeseen issues that would arise. In Shea's mind, Scott has been the “guardian angel” of the shuttles and has demonstrated that needed flexibility in adjusting the transportation system as needed to help it run more smoothly.

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<sup>50</sup> Rozelle, interview by Logan Hebner.

<sup>51</sup> Ibid.

Scott did have to make continual adjustments, learning more as time progressed. Scott's experience operating city buses has helped, but operating the Zion transportation system is extremely different from public transit in a large city because new customers board Zion's buses everyday and Zion shuttle drivers do not handle money.

Scott had to adjust the shuttle schedule in its first week of operation in 2000. Buses became so crowded that limited ventilation became a concern, since air does not flow through well when buses are standing room only. Scott changed the schedule, running buses more frequently, so fewer passengers would have to stand, creating better ventilation and better visibility. During the height of the summer, there are only four buses not running, but even those buses are ready to go at a moment's notice. Sometimes drivers have had to drive an extra bus directly to a crowded shuttle stop up canyon in order to keep passengers from waiting too long.<sup>52</sup> In the fall, the shuttle runs two fewer hours than it would in the summer due to decreased park visitation.

Scott has been both a bus expert and an expert at choosing the right staff members. "He's been really an absolute key to the success," Shea said of Scott. "One of Kirk's favorite statements is, 'We want people that are good people people. We don't want people that are good bus drivers. We'll teach them how to drive buses, but we can't teach them to be good people people.'"<sup>53</sup> Scott has done just that – hired good "people people." "They keep coming back and they keep spreading the word and they add to that visitor experience," Shea noted. "If you

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<sup>52</sup> Haraden, interview.

<sup>53</sup> Shea, interview.

had folks that just said, ‘It’s my job to drive the buses and that’s it,’ it would be a different experience altogether.’”<sup>54</sup> Partly due to Scott’s good personnel choices, park staff and PTI employees have an excellent relationship. Haraden said he knows most of the drivers and that park rangers and drivers treat each other like family – as part of a team. A ranger never treats a bus driver as an inferior.<sup>55</sup> In addition, PTI enjoys low turnover. For example, after the first year of shuttle operation, all but two drivers came back. The company holds numerous barbecues for its employees to cultivate camaraderie.

In addition to treating its employees well, PTI also lavishes attention on the buses, Haraden said. PTI gives each bus a complete cleaning everyday in its maintenance/wash bay, which can fit four complete buses and trailers. PTI also follows a strict maintenance schedule to keep the buses in good running condition. Since shuttle implementation, PTI has had to redesign some bus features, such as rerouting the hydraulic line and installing an electric cooling system to reduce the need for hydraulic fluid. This need arose after a bus caught on fire because its hydraulic fluid, constantly rubbing against its frame, burst and sprayed on its engine block. When the engine caught on fire, the bus driver followed safety procedures, such as getting every passenger off the bus and putting the fire out with the on-board fire extinguisher. No one on board was injured. Another change in the buses from the shuttle’s first year is a better hitch between bus and trailer so passengers enjoy a less turbulent ride. Over the years,

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<sup>54</sup> Ibid.

<sup>55</sup> Haraden, interview.

PTI has had to rebuild some of the buses' propane engines. It has also done minor body repair on some buses and trailers.

### Cultivating the Zion-Springdale Partnership

The partnership between the park and Springdale that proved vital during the shuttle's implementation has continued since shuttle service began. During the first summer of operation, the park held a meeting to resolve the community's concerns. At the meeting, townspeople defended and resolved other townspeople's concerns, Haraden said.<sup>56</sup> Bimstein worked with VanderWerff, who succeeded him as mayor, to assure that the relationship with the park became part of Springdale's culture.<sup>57</sup> The superintendent continually updates the town council about what is happening in the park and every six months the town and park hold open discussions on whatever issues concern them. The Zion Canyon Visitors Bureau made a map of where businesses lie along the shuttle route in town. Park staff accompanies Visitors Bureau personnel to tourist promotion events. The town and park worked together on a community center, which opened in the fall of 2006. The park donated native plants and rocks for the community center's landscaping, which park volunteers installed. "We want to be a good neighbor," Haraden said, noting that the two entities now have the mentality of "your problems are our problems." "It's the way the government should be working – everyone working together," he said.<sup>58</sup>

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<sup>56</sup> Haraden, interview.

<sup>57</sup> Liggett, 15.

<sup>58</sup> Haraden, interview.

Haraden said the park service constantly seeks to cultivate relationships. He enjoys frequenting local businesses in uniform and seeing how well he is treated. But by the same token, he raises the ire of some business owners. “It’s my job to be yelled at,” he said. Much of the time, Haraden must explain how and why the park does things. For instance, in the summer of 2005, the park repaved the Zion Canyon Scenic Drive. The decision disgruntled many Springdale residents and business owners, so Haraden and his staff had to explain that the paving had to happen in summer because it would be too cold to lay the pavement in the winter. While upset at first, town businesspeople and leaders became supportive because of the way the park handled the situation, especially since those concerned heard it first directly from the source and not through the grapevine. They also feel comfortable asking park personnel questions if they have any.<sup>59</sup>

Haraden said that approximately 25 percent of his job has to do with community partnerships. Today a park service employee holds a seat on the Springdale planning commission, a requirement being that the person cannot live in Springdale. A park staff member now holds a seat on the St. George Transit Board as well.

### Springdale Business Reaction to Shuttle

In her Masters Thesis, *Alternative Transportation in Cades Cove: Preserving the Past by Planning for the Future*, Vanessa Morel of the National Parks Conservation Association surveyed 100 businesses that are members of the Zion

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<sup>59</sup> Haraden, interview.

Canyon Visitor's Bureau in 2003 to gauge their perception of the Zion shuttle in both the town of Springdale and the Zion Canyon Scenic Drive. Forty businesses responded. According to Morel's survey:

. . . shuttles are perceived by business owners to be improving access to recreational opportunities, reducing tension and stress for people who would otherwise drive their own vehicles, reducing the amount of parking problems, providing jobs, improving air quality by reducing the amount of vehicle pollution, and possibly attracting tourism dollars to the area.<sup>60</sup>

Overall, business owners did not feel like the shuttles are destroying the character of the town, nor individual businesses. In fact, Morel reported that Springdale tax revenues increased 22 percent from 2000, the year the shuttle began operation, to 2003. Seventy-eight percent of survey respondents said they would recommend a shuttle system to other gateway communities facing similar congestion issues. Morel also established from her survey that the shuttle is relatively convenient for all businesses in Springdale, because even those not directly on the route are within a short drive or walk of a shuttle stop.<sup>61</sup>

Some Springdale business owners were skeptical when they found out the shuttle system would really be coming to the town and park. Stewart Ferber, owner of Ferber Resorts, which includes Zion Canyon Campground, Quality Inn at Zion Park and Rodeway Inn and Suites, said he thought people would be limited to what they could and could not do in the park. "I thought it was big government ruining a good thing," he said.<sup>62</sup> Others were excited, including Josh VanderWerff, a managing partner of Zion Outdoor and Zion Pizza and Noodle

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<sup>60</sup> Morel, iii.

<sup>61</sup> Ibid., 30.

<sup>62</sup> Stewart Ferber, e-mail message to author, April 11, 2006.



Company. He said that before the shuttle, many Zion visitors did not even get out of their car, but with the shuttle, “they have to stop, they might shop, or eat, or maybe even stay here for a few days.”<sup>63</sup> Larry McKown of Flanigan’s supported the shuttle from the very beginning, though he did not believe it would include the town loop, as originally claimed. He said it was a pleasant surprise to learn that the town section was completed and it ran late into the evening.<sup>64</sup> The 3.2-mile Springdale shuttle loop has made the community feel like part of the park, he said. Eileen Crookes, owner of the Red Rock Inn said that after so much planning, it was a relief to see the shuttle begin operations.<sup>65</sup>

Ferber was quick to praise the shuttle. When asked about its positives, he said, “My customers have this terrific transportation at my doorstep. Since part of our operation involves RVs this has become a major convenience for my clientele.”<sup>66</sup> Crookes believes the shuttle is as positive as “the businesses spin it to visitors.”<sup>67</sup> She said she makes sure to point out how easy the shuttle has made it to get around and the benefits it has had on the park’s natural resources. She believes a positive response to the shuttle adds to visitors’ overall positive experience in Zion.<sup>68</sup> McKown said the shuttle has made local businesses realize how important it is to create a park-like attitude instead of the attitude of a “commercialized tourist trap.” He said the shuttle stops and streetscape improvements have given the town continuity and made it look much better. All said their business has

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<sup>63</sup> Josh VanderWerff, e-mail message to author, April 12, 2006.

<sup>64</sup> Larry McKown, e-mail message to author, April 18, 2006.

<sup>65</sup> Eileen Crookes, e-mail message to author, April 11, 2006.

<sup>66</sup> Ferber, e-mail message.

<sup>67</sup> Crookes, e-mail message.

<sup>68</sup> Ibid.

increased since the shuttle began, but added that they cannot directly attribute the increase to the shuttle.

While Ferber, Crookes, and VanderWerff said they could not think of any negative effects the shuttle has caused, McKown said that the shuttle has had a negative effect on local lunch spots, because the shuttle has made travel back into town from the park take longer. “Our lunch business is now almost non-existent,” said Judith Rozelle. “Before, people coming up were impulse eating, impulse buying. Now, impulse buying and eating has really dropped, so there were negative aspects to [the shuttle].”<sup>69</sup> Overall, however, Rozelle is extremely complimentary of the shuttle. She sometimes marvels that the shuttle system even got off the ground. At first, she thought it might not work and that people would not accept it. “I wasn’t convinced at the beginning that we could properly service people,” she said. “It’s simply been far more successful than I had hoped.”<sup>70</sup>

### Future Directions

Even as early as the 1996 Interpretive Plan park personnel suggested that, if needed, the shuttle system would operate year round.<sup>71</sup> The 1997 Environmental Assessment stated that year-round operations are a long-term goal.<sup>72</sup> It explained that if private vehicles are allowed in the canyon during winter months, the roadsides would likely still be used, limiting recovery. Even when parking lots

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<sup>69</sup> Judith Rozelle (Former Concessions Management Analyst, Zion National Park), interview by Logan Hebner, April 21, 2003.

<sup>70</sup> Ibid.

<sup>71</sup> National Park Service, *Interpretive Plan*, 48.

<sup>72</sup> National Park Service, *Environmental Assessment*, 9.

have available spaces, winter visitors sometimes park along roadsides for picture taking, wildlife viewing, etc. If these areas are to recover while private vehicles are allowed in the canyon, they must be rehabilitated and signed to prevent continued use.”<sup>73</sup> Complete rehabilitation would not be possible until all private vehicles are removed and only shuttle buses operate, reducing the opportunity to use off-road parking altogether.”<sup>74</sup>

The 2001 General Management Plan suggested that voluntary visitor shuttles may run along the Zion-Mt. Carmel Highway to the east entrance and that pull offs along the Zion-Mt. Carmel Highway that are contributing to unacceptable resource damage would be removed and rehabilitated.<sup>75</sup> To date, the park has not formulated any specific action plan on this proposed initiative.

Karaszewski explained that Springdale has only accomplished approximately 20 percent of its planned streetscape revitalization, whose aim is to restore the streetscape the Works Progress Administration and Civilian Conservation Corps installed in the 1930s. Construction of the transportation project only improved the areas surrounding shuttle stops. “There’s [a lot] in between the shuttle stops that needs to be done – curbs, sidewalks, plantings, stone benches and that sort of thing,” Karaszewski said.<sup>76</sup> Time and money will be the two factors that determine whether the upgrades to the streetscape become reality.

On average, transit fleets turn over every seven to ten years, requiring the park to investigate what type of buses it will acquire next. The park will begin

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<sup>73</sup> National Park Service, *Environmental Assessment*, 21.

<sup>74</sup> *Ibid.*, 23.

<sup>75</sup> National Park Service, *General Management Plan*, iii.

<sup>76</sup> Karaszewski, interview.

replacing the current fleet of buses in 2009. Two issues the park will likely resolve in its next bus acquisition are better viewing from bus windows and more bike racks for larger bike capacity on the buses.

Karaszewski said he would like to see the shuttle become part of a larger regional transportation system, eventually including a shuttle to Virgin, Hurricane and eventually St. George to reduce the number of vehicles arriving in Springdale and the park. “They’re facing the same problems we faced here in the park,” Karaszewski said of St. George.<sup>77</sup> According to Karaszewski, even a shuttle a few times a day carrying workers from outlying areas to their jobs in Springdale would do a lot to save on noise, congestion, and parking. “I think a bigger, broader view of the whole area and transportation and how that all works is something I’d like to see – looking at conserving fuel and moving people and making it a good experience and not a road rage experience.”<sup>78</sup> As southern Utah’s population grows and visitation to Zion increases, a regional transportation system might be the next challenge park administration and local governments will face.

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<sup>77</sup> Karaszewski, interview.

<sup>78</sup> Ibid.

## CHAPTER 7

### CONCLUSION

Traffic jams have become as integral a part of a visit to a national park for modern visitors as ranger presentations and campfire programs were for visitors of yesteryear. Overcrowding has become such a problem that popular guidebooks advise their readers to refrain from visiting crown jewels such as Grand Canyon and Yosemite during the summer.

Beth Wilson eloquently stated in her article “Transit and the Park Experience” in the September/October 2000 issue of *Community Transportation*:

The National Park System (NPS) operates under a precarious mandate. Federal parks were established to protect unique natural resources and preserve national heritage for future generations to enjoy. At the same time, the NPS must ensure public access to these scenic treasures. The two obligations are actually at odds with one another. As the number of visitors grows each year, so does their destructive impact on the parks – cars, exhaust, lines of traffic, delays, paved parking lots – marring the very park experience the public seeks.<sup>1</sup>

John G. Mitchell’s article in *National Geographic* assessing the state of the national park system, which appeared exactly six years after Wilson’s, echoes her sentiment. Mitchell spoke with rank-and-file park service personnel across the country. Their most persistent complaint was a perception that the NPS had lost its ability to protect natural and cultural resources, in large part because its rangers had morphed into traffic cops to accommodate growing throngs of park-loving

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<sup>1</sup> Beth Wilson, “Transit and the Park Experience: Preservation, Access, Economics and Opportunity,” *Community Transportation*, September/October 2000.

visitors. All these problems and many more continue to plague the service and the system – notably the contentious issue of protection versus use.<sup>2</sup>

In 2001, the National Park System Advisory Board, a distinguished panel appointed by the Secretary of the Interior, issued a report entitled “Rethinking the National Parks for the 21st Century.” It described how the early park service discovered that the best way to win public support for the parks was to make sure the visitors derived pleasure from them. The board concluded that today, that attitude is no longer acceptable. “It is time,” the board declared, “to re-examine the ‘enjoyment equals support’ equation and to encourage public support of resource protection at a higher level of understanding. In giving priority to visitor services, the Park Service has paid less attention to the resources it is obliged to protect for future generations.”<sup>3</sup>

Sadly, the Department of the Interior has given little heed to the report, actually encouraging policy changes that went against the recommendations. In the summer of 2005, the Department of the Interior made public – only after it was leaked – a 195-page revision of the Park Service’s basic policy document. Some of the most radical policy changes were calls to open all national park roads used by motor vehicles to snowmobiles and relax restrictions on personal watercraft at some national seashores and lakeshores and on noisy tourist flights over such parks as Great Smoky Mountains and Glacier.<sup>4</sup> The revision paid little

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<sup>2</sup> John G. Mitchell. “Threatened Sanctuaries: The State of U.S. Parks.” *National Geographic*, October 2006, 88-97.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

attention to the importance of promoting science-based programs in national parks.

After outcry in the press and a storm of protest within the NPS, some of the original policy changes favoring motorized recreation were toned down or eliminated altogether, “but still intact was the challenge to the primacy of protection over use.”<sup>5</sup> Speaking at the House Resources Committee hearing a few months later, Stephen Martin, deputy director of the National Park Service, questioned what all the fuss was about and denied there had been any attempt to manipulate the agency’s core mission. Martin testified that the new draft policies “underscore that when there is a conflict between use and conservation, the protection of the resource will be predominant.”<sup>6</sup> In June 2006, another draft of the document came out, rejecting earlier revisions, conceding nearly every point of contention and returning to the original policies the revisionists had sought to undercut.<sup>7</sup> Gratefully this policy leaning towards unfettered motorized access never materialized, but it is alarming such an attitude exists in the upper echelon of the Department of Interior and NPS management. The Zion Shuttle, a restriction on motorization, is an anomaly in the Park Service.

The Zion Transportation System has become a model for other park managers looking for ways to cope with traffic jams and air pollution. Unfortunately, as William S. Rosenberg, former deputy head of the NPS design and construction, suggested as far back as 1968, budget constraints are still the major hurdle

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<sup>5</sup> Mitchell, 88-97.

<sup>6</sup> Ibid.

<sup>7</sup> Ibid.

preventing the public transportation initiative from spreading. From 1998 to 2002, spending on public transit systems in national parks averaged just \$9.5 million annually.<sup>8</sup> In 2002, uncertainty shrouded the additions of mass transit in other parks because of sharp decreases in visitation following the terrorist attacks of September 11, 2001. Zion was one of the few major national parks in the West to buck the trend of visitation decline.<sup>9</sup>

Smaller-than projected growth in visitor traffic was one of the reasons Congress denied funding for a planned light-rail line at the Grand Canyon's South Rim. The idea of a light-rail system at the park generated a lot of excitement at first and the federal government even spent \$14 million on a train station and visitor center, which opened in 2000. Originally envisioned as a rail hub, the building, known as the Canyon View Information Plaza, sees little traffic, mostly from buses. Most visitors do not even know it exists, even as they jockey for a parking spot at the ever-popular Mather Point, which lies only a few hundred yards away.<sup>10</sup>

### Modern Transportation Woes in Yosemite

Yosemite is a prime example of the continuing national park transportation battle. By 1980, the NPS's decades-long advocacy of development and

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<sup>8</sup> Christopher Smith, "The Battle for Federal Park Funds Is Starting; National Parks Vying for Share of Federal Funds," *The Salt Lake Tribune*, December 30, 2002.

<sup>9</sup> Wendy Mitman Clarke, "The National Park or Parking System?" *National Parks*, Jul/Aug 2001.

<sup>10</sup> John Krist, "National Parks Try to Take Control of Traffic," *Environmental News Network*, July 18, 2003.



automobile accommodation started to change as the Yosemite General Management Plan of that year advocated the removal of most private vehicles and the elimination of many parking spaces from Yosemite Valley. Park managers did not implement the ambitious plan mainly because of lack of funding. Although the NPS did not act on the proposal, its ideas led to less drastic transportation changes within the park. In 1992, leaders from the five counties immediately surrounding the park formed the Yosemite Area Regional Transportation System (YARTS). Early budget constraints dogged the fledgling idea, but in May 2000 YARTS began operating a bus system that transported Yosemite visitors to the park from its gateway communities. The counties, federal subsidies and fares finance YARTS. A round-trip fare includes a day-use park fee.

In March 2000, while announcing a new plan for reducing traffic in Yosemite Valley, Secretary of the Interior Bruce Babbitt said the NPS had been trying to solve the problem of overcrowding for more than 20 years. The Park Service announced a series of plans with speeches and fanfare, but never put them into practice. “We produced paper,” but developed “planning fatigue,” he said.<sup>11</sup> The 2000 plan, to be implemented on a 10-15 year timetable, calls for displacing many parking spaces to Badger Pass or El Portal and an additional site at either Hazel Green or Foresta. The NPS seeks to build a lot with 550 spaces at a redesigned visitors’ center and increase the number of shuttle buses in the valley, shifting from diesel to hybrid-powered models. In this newest transportation scheme, tourists will no longer be able to park at the base of Yosemite Falls, and many

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<sup>11</sup> Carl Nolte, “Babbitt Tells Details Of Yosemite Changes,” *The San Francisco Chronicle*, March 28, 2000.

people will be obligated to take shuttle buses for a closer look at Half Dome and El Capitan.<sup>12</sup>

Throughout Yosemite's history, and especially in the last 20 years, many organizations, such as the Wilderness Society, the Sierra Club and the Yosemite Restoration Trust, have voiced their opinions on how park should manage transportation. For instance, in 1995 David Brower, former Executive Director of the Sierra Club, opposed the plan to ban most cars in Yosemite Valley, saying the claims of gridlock were exaggerated. Brower advocated a reservation system during peak times instead of eliminating cars completely.<sup>13</sup> On the other hand, Janet Cobb, president of the Yosemite Restoration Trust, supports making driving in the park more expensive than taking the bus as an extra incentive to utilize alternative transportation.

Speaking specifically about Yosemite, a 2003 *San Francisco Chronicle* article called the two competing NPS mandates of preservation and access a "wrestling match."<sup>14</sup> This wrestling match is not only between the two Park Service directives, but also between those whose passion for Yosemite runs deep, such as environmental groups lobbying to reduce auto traffic with alternative transportation and merchants that want unrestricted car access, thinking that a shuttle system will hurt their livelihoods. One prime example of hostility between

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<sup>12</sup> Glen Martin, "Yosemite Plan Tries to Turn Back the Clock: Blueprint brings an end to 30-year battle," *San Francisco Chronicle*, November 15, 2000.

<sup>13</sup> Carl Nolte, "Famed Environmentalist Opposes Yosemite Park Plan," *San Francisco Chronicle*, December 11, 1997.

<sup>14</sup> Paul McHugh, "Four-year old YARTS is working wonders for Yosemite Valley Travelers," *The San Francisco Chronicle*, December 4, 2003.

Yosemite lovers is YARTS, which began as a cooperative effort between five counties. By the time YARTS started service, two counties – Tuolumne and Madera – dropped out because their constituencies did not completely back the system.

One outspoken and influential Yosemite devotee sought to destroy Babbitt’s 2000 plan. Mariposa Republican Congressman George Radanovich sponsored a bill introduced on July 14, 2003 that emphasized easy access to the valley in order to avail Yosemite to the greatest number of citizens. The bill advocated rebuilding about 150 campsites in the old river campgrounds, increasing parking spaces in the valley and quashing the shuttle project. Many local businesses supported the Radanovich plan. An informal poll of hikers and campers on the valley floor and adjacent trails indicated that plenty of people are willing to come to the valley, regardless of the impediments. One responder said the Valley Plan, as the 2000 document came to be known, is working well. “It would be [a waste] of time and taxpayer money to overturn it. There’s too much development in the valley as it is.”<sup>15</sup> In October 2003, by a one-vote margin, the House Resources Committee passed Radanovich’s bill (HR 2715). “Radanovich’s latest attack on the valley plan would take Yosemite back toward an era of more pavement and congestion, negatively impacting both the natural resources and the visitor experience,” said Carl Pope, Executive Director of the Sierra Club.<sup>16</sup> According to Pope, Yosemite

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<sup>15</sup> Glen Martin, “Yosemite once again a battleground: Mariposa congressman wants to change Clinton-era plan,” *San Francisco Chronicle*, July 27, 2003.

<sup>16</sup> Pope, Carl, Editorial, “Vindictive Radanovich Playing Politics with Lodge,” *Fresno Bee*, November 17, 2003.

lovers overwhelmingly support reducing auto traffic, commercialism and crowds in the valley. The debate sparked by Radanovich's bill still rages today.

Yosemite has long been a battleground and often transportation issues, especially those relating to the admission of private automobiles, are at the heart of the contention. "You are a cantankerous, irascible, quarrelsome and passionate people," Babbitt told onlookers as he announced the 2000 Valley Plan following the scores of public meetings and comment. As the park service has listened to this "quarrelsome" group over the last 25 years, the agency has done little to fix Yosemite's transportation woes, which continue to exact damage on the park environment and frustrate many visitors. As Babbitt himself mentioned, the NPS has a history of making plans without implementing them due to reasons ranging from budget constraints to unfavorable political climates. With luck, recent events such as the initiation of YARTS and the delivery of new hybrid shuttles will signal a more certain future for Yosemite transportation and the beginning of an era of Park Service action that will end decades of indolence.

Compared to Yosemite, it was relatively easy to implement the shuttle system in Zion because the park does not have outspoken advocacy groups such as the Wilderness Society, the Sierra Club and the Yosemite Restoration Trust voicing discordant opinions on how it should be administered. Some Springdale residents did disagree with a variety of aspects of the shuttle, but Falvey and Bimstein's unified approach and emphasis on open communication staved off any potentially destructive blows that could have impeded shuttle implementation. Residents who at one time were against the transportation system became staunch allies, as the

example of early shuttle opponents now employed as shuttle drivers attests. In Yosemite, large, well-publicized lawsuits and congressional antagonism, as in the case of Rep. Radanovich, have become debilitating blows to ambitious transportation initiatives. Zion, on the other hand, had unwavering congressional support, especially from former Rep. Jim Hansen and Senator Bob Bennett, and a presidential administration that envisioned public transportation as the future of national parks.

#### Political Climate Affecting National Park Decisions

National parks, like everything else under the Federal umbrella, are subject to the political climate of the time and to political appointees. There is not much continuity or longevity in the upper echelon of park management and each presidential administration has its own agenda and ideology toward national parks. Every 4-8 years, the political attitudes toward national parks shift. National parks can receive robust support from one administration, but be on the backburner of the administration that follows. For example, in the last 30 years, Democratic presidents have a favorable national park record while Republican presidents have been more unsympathetic towards national parks. Democrats have had a tendency to take a long-term view on the environment, trying to make regulations favorable to future generations, while Republicans, in general, have taken a short-term view, catering to the interests of big business.

Overall, the administrations of Ronald Reagan and George Bush, Sr., took a pro-development stance and did not lend much of an ear to environmentalists,

especially Reagan. According to New York Times reporter Phillip Shabecoff, writing in 1986, the Reagan Administration, “in making policy decisions (gave) too much weight to short-term economic priorities and ideological goals and too little to the long-range consequences of environmental damage and to the economic, scientific and cultural values of environmental preservation.”<sup>17</sup>

Reagan’s first Secretary of the Interior, James Watt, “tried to sell the nation’s public lands to private business.”<sup>18</sup> While some say Bush Sr. listened to environmentalists more than Reagan, his environmental record was lackluster. “They are basically the office of development,” Rep. Mike Synar (D-Okla.), chairman of the Government Operations subcommittee on environment, energy and natural resources, said of the Department of the Interior under Bush, Sr., in 1990. “They are out of step and out of touch with the American public.”<sup>19</sup>

President George W. Bush shared much the same ideology as Reagan and his father. He was not even remotely environmentally friendly until Secretary of the Interior Dirk Kempthorne, appointed in 2006, urged him to be. He allowed national parks to slide into decline until Kempthorne came on the scene, leading Philip Clapp, president of the National Environmental Trust, to remark, “When presidents come to the end of their terms, they always look for great places to

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<sup>17</sup> Philip Shabecoff, “With Two Years Left, Many Reagan Goals on Environmental Policy are Unmet,” *The New York Times*, December 30, 1986.

<sup>18</sup> John Lancaster, “New Look, Old Mission at Lujan’s Department; Interior Still Bound to the West,” *The Washington Post*, January 19, 1990.

<sup>19</sup> *Ibid.*

save. As for the rest of President Bush's environmental record, I'm still snoring."<sup>20</sup>

The second president Bush filled most critical environmental posts with people who regarded the environment as a resource to be exploited and who at one time served mining, logging, oil, and other interests.<sup>21</sup> His administration reversed the phase-out of snowmobiles in national parks, allowed road building in national forests, made it easier for mining companies to dig for copper, gold and zinc on public lands, barred the reintroduction of grizzly bears in the Northwest, and eliminated regulatory hurdles for military and industrial projects, among other environmentally insensitive initiatives.<sup>22</sup> The administration put many favorable Clinton administration regulations on hold. "I expect the Bush administration will go down in history as the greatest disaster for public health and the environment in the history of the United States," said James Jeffords, an independent from Vermont, who was a ranking minority member of the Environment and Public Works Committee, in 2004.<sup>23</sup>

In contrast to the Reagan and two Bush presidencies, the Bill Clinton administration proved repeatedly that it was a friend of the national parks. Clinton opposed Republican proposals to privatize national parks or turn them over to

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<sup>20</sup> Sheryl Gay Stolberg and Felicity Barringer, "The President Shows His Environmentalist Colors," *The New York Times*, February 8, 2007.

<sup>21</sup> "Poor Marks on the Environment," Editorial, *The New York Times*, January 28, 2002.

<sup>22</sup> Katharine Q. Seelye, "Imagine: Stealth Anti-Environmentalism," *The New York Times*, December 23, 2001

<sup>23</sup> Felicity Barringer, "Bush challenged on environment: Activists Sharply Criticize his Prosperity-First Approach," *The International Herald Tribune*, September 15, 2004.

states and he wrangled with Republicans when they wanted to cut funding to parks. Clinton vowed his administration would support ample spending on parks while being open to innovations that would allow parks to raise more money through private fund-raising. He wanted money earned from park entrance fees in each park to stay within that park. Clinton opposed a bill that would have created a commission to determine which of the 314 units of the national park system deserved closing.<sup>24</sup>

The Clinton administration created 19 national monuments and opposed oil exploration in national park areas. Late in his presidency, he laid out a plan that would virtually ban air pollution in parks within 60 years.<sup>25</sup> Through the passage of the 1998 National Parks Omnibus Management Act, the Clinton Administration and the Democratic-controlled Congress made a definitive statement regarding the importance of scientific research to national parks.<sup>26</sup>

Due to the Clinton administration's favorable attitude toward national parks, the 1990s became the perfect time to secure federal money to implement the Zion National Park transportation system. In November 1997, Clinton and his Secretary of the Interior, Bruce Babbitt, unveiled a bold plan to replace cars with public-transportation systems in three "crown-jewel" national parks, Zion among them. The transportation system in Zion was the only one that ever materialized

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<sup>24</sup> John F. Harris, "Clinton Says GOP Cuts Could Harm National Parks," *The Philadelphia Inquirer*, August 26, 1995.

<sup>25</sup> Scott Allen, "Clinton Eyes Plan to Rid the National Parks of Pollution," *The Boston Globe*, April 17, 1999.

<sup>26</sup> David J. Parsons, "Supporting Basic Ecological Research in U.S. National Parks: Challenges and Opportunities," *Ecological Applications* 14, no. 1 (2004), 9.



as the administration originally envisioned. However, Zion’s transportation system was a bold step forward in preserving national parks for future generations, as the Organic Act stated in 1906 – a definite environmental victory that could not have happened under the Reagan or two Bush administrations.

### Public Transportation: The Best Solution to Congestion

Zion is a prime example of what Kim Sorvig calls the “park paradox.” The Zion-Mt. Carmel Highway is a perfect illustration of this contradiction in terms. In the late 1920s, a mile-long tunnel was blasted through Zion’s cliffs, complete with lookout “galleries” cut like windows in the rock to allow motorists a better view of the canyon below. In that era, nobody saw the irony of blasting through the geological formations that attracted visitors to the park. Nor did they see any downside in opening up an easy, convenient route to Zion.

As the NPS and Federal Highway Administration provided more access to parks, overcrowding followed. This car-focused tourism has caused great physical damage to most national parks, including Zion. “Easy, egalitarian access remains part of today’s park service mission,” Sorvig explains.<sup>27</sup> Fortunately, the focus and methods are changing. The Zion shuttle provides access to everyone, regardless of physical handicap, annual income, or fitness level, and does not detriment the park’s environment due to its prohibition of private vehicles.

The era of building roads in national parks is over. Infrastructure is now at or beyond capacity. Planners designed park roads to flow with the natural setting and

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<sup>27</sup> Sorvig, 73-74.

contribute to the visual experience, but they were never meant to carry today's car volume. "Arriving with the hopes of a park experience, visitors often find themselves caught in a parking experience," Wilson mused.<sup>28</sup> Building more roads is definitely not the answer to the national park transportation dilemma. Beyond the environmental impacts, the cost of expanding roadways and parking facilities to meet demand is an enormous drain on resources, which are already straining to address a backlog of deferred maintenance.<sup>29</sup> Owen Gutfreund explains in his book *20<sup>th</sup> Century Sprawl: Highways and the Reshaping of the American Landscape* that no matter how many lanes are added to a road, they never seem to be enough.<sup>30</sup> More lanes will not eliminate congestion. The only thing that will ease congestion is getting people out of their cars.

As Sorvig effectively explained:

Would today's park planners happily dynamite Zion's 200-million-year-old Kayenta sandstone for the convenience of drivers? Unlikely. Instead, they balance access with quality of experience and protection of the park's unique resources. Increasingly, parks are designed as showcases and testing grounds for sustainable facilities, teaching visitors to live lightly on the land. By showing that public access does not necessarily mean private cars, Zion is setting an example not only for parks but also for sustainability-minded communities everywhere.<sup>31</sup>

Over the years, NPS has not concretely decided which comes first, the resource or the visitor. There should be no debate over the issue. National parks can both protect the resource and please the visitor. Zion's shuttle system offers

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<sup>28</sup> Wilson.

<sup>29</sup> Ibid.

<sup>30</sup> Owen D. Gutfreund, *20<sup>th</sup> Century Sprawl: Highways and the Reshaping of the American Landscape* (New York: Oxford University Press, 2004), 98-99.

<sup>31</sup> Sorvig, 74.

worry-free access for visitors and provides much better protection for the resource. Those initially opposed to banning cars in Zion Canyon, contending that it might restrict access, found just the opposite after shuttle implementation. More park goers are able to see the resource in Zion without worrying about finding a parking space. Once forced to spend much of their time in the park driving back and forth looking for a place to park, visitors can now spend that time hiking an additional trail they might not have been able to traverse in pre-shuttle days. “I’ve always taken seriously the park’s mission from the Organic Act . . . to preserve the resources in the park and make them available in a way that doesn’t impair them,” Bimstein said.<sup>32</sup> A visitor from Minnesota agreed with the former mayor, saying, “This is a marvelous way to protect the natural resources and at the same time let the public access the beauty of the national parks.”<sup>33</sup>

A year before Zion’s shuttle system commenced, Maine’s Acadia National Park initiated a voluntary shuttle system using propane-powered buses that transport visitors into the park by way of its gateway communities. The free service has proven hugely popular and has cut down summer traffic congestion while also reducing park pollution by as much as shutting down one power plant would do. In Harper’s Ferry, West Virginia, visitors leave their cars in lots on the outskirts of the cramped little mountain town and ride buses in. A shuttle now runs in Lewis and Clark National Historic Park in southwest Washington and northwest Oregon to ease congestion on narrow coastal roads. Even Zion’s neighbor, Bryce Canyon National Park, boasts a voluntary shuttle system. A

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<sup>32</sup> Liggett, 15.

<sup>33</sup> Ibid.

shuttle system is on the planning boards of several of the nation's largest parks, from Yellowstone to the Great Smoky Mountains. The Cades Cove area in the Great Smokies may opt for a mandatory shuttle in a one-way, 11-mile loop that currently experiences overwhelming congestion.<sup>34</sup>

The same issue of National Geographic in which Mitchell's article appeared shows a photograph of a traffic standstill in Yosemite, picturing a Yosemite Valley shuttle bus engulfed in a sea of private automobiles. Its caption reads, "A fleet of hybrid diesel-electric buses runs through Yosemite Valley, and about 75 percent of the park's 3.4 million yearly visitors use the free service, but even the buses get trapped in the stink and stress of gridlock."<sup>35</sup> As the text goes on to say, traffic plagues parks from the Great Smoky Mountains to the Grand Canyon – but not in Zion, with its clean, quiet propane-powered buses. The magazine then shows a photograph of Zion Canyon from a high vantage point with one shuttle bus and its trailer traveling an otherwise empty road. The photo's caption touts how the shuttle eliminates approximately 4,000 vehicle trips a day and how much operation costs – about one dollar per year for each of the park's 2.6 million annual visitors. That is a relatively small price to pay for the shuttle's many benefits, some of which are "stress and noise down, air quality and quiet up."<sup>36</sup>

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<sup>34</sup> Steve Hendrix, "Park It . . . Then Park It," *Washington Post*, July 3, 2005.

<sup>35</sup> Lynne Warren, "Our National Parks in Peril," *National Geographic*, October 2006, 68-87.

<sup>36</sup> Warren, 68-87.

### Welding the Park Service's Two Competing Mandates

When asked if the Zion Transportation System welds the National Park Service's competing mandates of access versus preservation, Patrick Shea, the transportation project's team leader, said it has welded the two mandates very well. "You've exchanged a limited access scenario that actually had a reasonable amount of impact for greater access that has less impact," he said.<sup>37</sup> Shea pointed out that construction of the project did affect the Watchman Campground and a formerly untouched side canyon, but through those impacts, the park service has minimized impacts other places. Shea further explains that the shuttle has increased access to the park dramatically, but if that increased access became a problem, there would be a way to adjust the access based on resource requirements, such as changing shuttle schedules. Shea believes the shuttle experience has been effective at communicating incumbent values of national parks, such as preservation of wildlife and reduction of noise pollution. Another key aspect of the shuttle according to Shea is engaging gateway communities to help resolve park problems. "Could you sell off the buses and go back to the traditional way?" Shea asked to himself. "Well, yah, you probably could. Would the resource be better? Probably not. Would the access be enhanced? The answer would be, definitely not."<sup>38</sup>

Shea said the Zion shuttle has worked well from both an agency standpoint and a gateway community standpoint. "A number of parks and a number of other public lands and a number of other entities, and gateway communities included,

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<sup>37</sup> Shea, interview.

<sup>38</sup> Shea, interview.

look to Zion as sort of an example of a successful combination of factors that work,” Shea said. “There’s an understanding that not every park needs [a public transportation system], but there are some common elements that can be applied in varying amounts elsewhere, and other parks are looking at doing that.”<sup>39</sup> Shea said almost one third of all parks in the NPS are investigating the feasibility of alternative transportation systems.

Public transportation systems in national parks provide convenient access, and in actuality more widespread access than previously offered, as the example of the Zion shuttle illustrates. More visitors are able to enjoy Zion Canyon now that lack of parking is no longer an issue during the peak season. Buses unload large groups approximately every 10 minutes at any given shuttle stop. After debarking, visitors enjoy a sense of solitude, since the previous group of passengers has typically already dispersed up a trail or to some other destination. Hikers can access more trails in a day since they do not have to spend any of their time searching for a parking space, essentially giving them more for their money when they visit the park.

Outspoken environmentalist Edward Abbey said that eliminating motor traffic would make national parks seem larger, saying: “there will be more room for more persons, an astonishing expansion of space.”<sup>40</sup> Abbey regularly stated his objections to private automobiles in national parks. In *Desert Solitaire*, he declared:

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<sup>39</sup> Ibid.

<sup>40</sup> Edward Abbey, *Desert Solitaire* (New York: Ballantine Books, 1968), 62.

The motorized tourists, reluctant to give up the old ways, will complain that they can't see enough without their automobiles to bear them swiftly (traffic permitting) through the parks. But this is nonsense. A man on foot, on horseback or on a bicycle will see more, feel more, enjoy more in one mile than the motorized tourists can in a hundred miles.<sup>41</sup>

The Pa'rus Trail is an excellent example of this concept. Before its completion in 1994, most tourists drove from the visitor center to the turnoff to the Zion Canyon Scenic Drive to get to the main attraction – the spectacular monoliths of Zion Canyon – without even noticing the scenery beforehand. Hikers and bikers traversing the Pa'rus Trail will find that its surrounding landscape takes on new meaning at a slower pace. The 20-mile-per-hour speed of the shuttle provides much the same affect. The slower pace has made the canyon more enjoyable and awe-inspiring to most visitors.

The peace that visitors seek when they visit national parks is available in Zion with the advent of the shuttle. The Grotto Picnic Area, near the midpoint of the shuttle route, used to harbor hoards of picnickers, litter and downtrodden plant life. Since the shuttle's inception, the Grotto has become a tranquil place for visitors to sit, relax and meditate while viewing the resurgence of plant and animal life. The Grotto affords one of the best opportunities in the park to catch a glimpse of wild turkeys, whose population has rebounded since the shuttle's inception. Riding shuttle buses allows visitors the opportunity to relax without worrying about traffic or if they will be able to find a parking space in the lot next to their desired trailhead. Riding a shuttle through Zion Canyon enhances visitors' enjoyment of the canyon's scenery through the large shuttle windows while

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<sup>41</sup> Ibid.

listening to a presentation on the park's history, geology and wildlife from the bus driver. Much like a ride on the subway has become part of the experience of visiting large Eastern cities such as New York and Boston, taking in the scenic wonders onboard a shuttle bus should become a necessary part of pilgrimages to national parks.

Zion National Park's shuttle system presents the story of an NPS success – a plan implemented amid a sea of plans gone by the wayside. It is indeed an example for other parks to follow. It encourages visitors to become more conscientious in their effort to take care of national parks. It demonstrates that public transportation systems in national parks more closely align the NPS with its mandate to preserve the natural beauty of each park for the enjoyment of future generations. The Zion shuttle is a major stride forward in the continuing search for methods to accommodate large numbers of visitors while exacting little or no damage on superb scenery, thus welding together the two formerly competing National Park Service mandates – visitor access and scenic preservation.



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