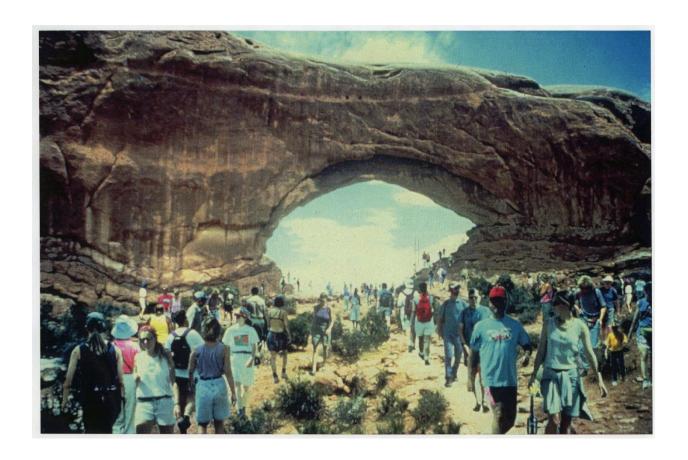
Visitation Planning and Management at Arches National Park,

1929-2006:

An Introduction



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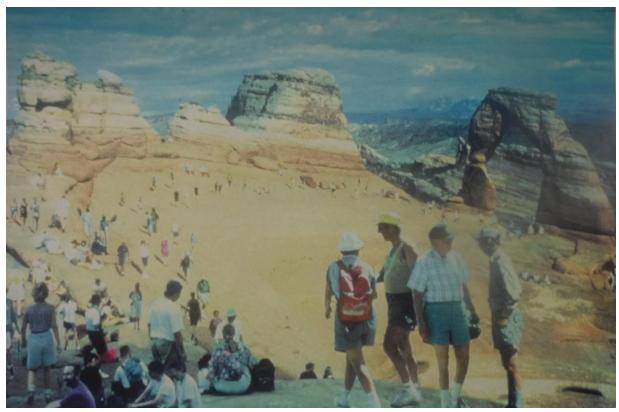
Exponential Visitation: A Brief Summary of a Known Problem
Historical Context: Arches' Founders and the Positive Feedback Loop
Visitation Management – Growing Awareness of an Inevitable Problem
Visitor Experience and Resource Protection (VERP)
Understanding VERP: Key Quotations
Apparent Reasons for VERP's Failure99
Conclusion
Discussion Questions



May 2016 photo featured in "Crowds Descend on Arches National Park," ABC4 Utah.²



2019 Photo by Will Pedro, Featured in the Saint George News Archives, November 17, 2019.³



Highest use scenario image, digitally created and used for public polling of visitor crowding preferences during Arches' VERP program, ca. 1992-1997.



Kobus Peche photograph featured in National Geographic, April 22, 2022.⁴



Zillow.com housing for sale search, Moab, Utah, August 14, 2022



Shutterstock image, visitors waiting to board shuttle buses at Zion National Park, 2019.5

Exponentially increasing visitation is the most significant issue facing many units of the National Park Service system today. At Arches it was anticipated by the early 1960s and has been acknowledged by multiple management teams as one of the most significant challenges facing that park from the late 1980s onward.

There are historical reasons why this problem has been allowed to reach its current proportions before effective management action has been taken to address it. Some of them are internal. Many of them are much broader. The actions and inactions of past superintendents have been extremely important. But it must be recognized that park managers do not make decisions in isolation from the broader societies they inhabit. Superintendents must face business communities and state political delegations who do not always share the same values or understandings. They also function within a national political context that is not always characterized by entirely supportive, or even coherent, leadership. They may not even exist for years at a time due to budget tightening. And they may struggle to get essential programs that they start recognized and supported by their superiors when operating within a context of shared authority.

In 1978, Congress passed the National Parks and Recreation Act (P.L. 95-625) which charged the NPS with developing a carrying capacity framework for the units under its jurisdiction. In 1990, the NPS picked Arches as one of a half dozen units where a visitation management program would be developed. From 1990 to 1995, Arches' Superintendent Noel Poe shepherded this effort. Its planning team soon settled on the name Visitor Experience and Resource Protection (VERP). VERP's essential framework as a plan for management action was defined by 1995, and slightly refined in 1997. By this study's end in 2005, decisive management action to stabilize visitation at scientifically and publically supported levels had not been taken. VERP acknowledged such action would ultimately most likely take the form of some kind of reservation system.

From the late 1990s and early 2000s visitation remained relatively stable, dipping downward slightly from 859,374 visitors in 1995 before coming back up to 860,181 visitors in 2007. Visitation rose from that figure to 1,014,405 in 2010, where it remained relatively stable for the next three years. With heavy external promotion, the exponential growth pattern of the 1980s and early 1990s resumed from the mid to latter 2010s, rising from 1,284,767 visitors in 2014 to 1,806,865 in 2021.

During this latter period, Arches' and SEUG's leaders chose not to attempt to limit visitation to the standards developed by VERP, and responded with traditional strategies of expanding parking lots, widening roads, and adding a second entrance lane to accommodate more visitors. From 2018 to 2021, Arches resorted to park closures on an increasingly frequent basis as these expanded parking lots filled, occasionally as early as before 8:00am. In 2022, a

timed-entry reservation system was implemented on a pilot basis.

Today, VERP is most commonly remembered at Arches and within SEUG as a perhaps well-intentioned program that failed, because, as the author has heard it verbally, "funding was cut," "research is expensive," or because "social science is subjective and not really real science that is a good basis for management." After reviewing VERP records in detail, these remembered explanations appear inadequate to explain the failure of a program of such importance. VERP appears to have failed for several reasons. The author's understandings of them are explained from pages 99-103 of this document.

Exponential Visitation, A Brief Summary of a Known Problem

Beyond park boundaries, exponential visitation that begins within an NPS unit can ripple across entire states. For many decades, tourism promoters and environmentalists alike have tempered anxieties of exponential tourism's increasingly obvious consequences with a familiar refrain: "The more people see it, the more people will want to protect it." It is extremely rare that anyone reciting this mantra today in the context of Southeast Utah is capable of demonstrating compelling evidence to back it up. Overwhelmingly, observed evidence is to the contrary.

Most significantly, fossil-fuel based tourism accelerates anthropogenic climate change. Globally, multiple sources estimate that tourism is responsible for approximately 8% of current CO2 emissions. Increased southwestern wildfires, diminishing snowpacks, erratic precipitation patterns, and pinyon-juniper forest die off has been observed throughout the later 20th and the early 21st century in multiple western national parks. In 2022, Wupatki National Monument reported a Pinyon-Juniper mortality of 47%. 8 At Arches, Pinyon-Juniper stress appears anecdotally significant but has not been systematically quantified. In 2021, warm temperatures, high winds, and diminished snowpacks contributed to a 9,000 acre wildfire in the La Sal Mountains that originated with an abandoned campfire at the Pack Creek Picnic Area. This fire transformed Arches' viewsheds and significantly affected the variety of regional recreational opportunities during the ensuing period of forest access closures. Prominent local resident and former Arches pack trip concessionaire Ken Sleight had approximately 100 boxes of archival material relevant to the history of regional public land management stored on his property at Pack Creek Ranch entirely destroyed by this fire. Currently, monsoonal flooding originating in burned over drainages in Pack Creek is causing accelerated erosion to public lands and elevated flood damage to roads, bridges, and parkways in and around Moab.9

NPS efforts to facilitate energy education by setting an example with solar arrays, low emission vehicles, recycling, etc., remain overshadowed by ever-increasing net emissions from the total number of visitors coming to locations like Moab, UT for recreational purposes. Here, nearly all tourism support infrastructure from motel air conditioners and laundry machines to food served at restaurants or sold in local grocery stores also depends on fossil fuels to exist.

The persisting absence of a coherent national policy to address climate change is alarmingly evident. At a time when the fundamental restructuring of a national energy grid is urgent, federal planning remains mired in inertia, with occasional positive steps by some agencies overshadowed by others that appear unable to break out of traditional habits. For instance, a May 28, 2021 NPS Press Release noted a \$3.5 billion proposal from the Biden Administration "to strengthen visitor safety and access while responding to climate change and modernizing park infrastructure." Seven months later, the same administration announced an

infrastructure plan that pledged \$2.89 billion to expand airports across the country. \$1,010,713 of this is presently being allocated to lengthen Canyonlands Field's runway to accommodate larger jet aircraft.¹⁰

One wonders, would it not be simpler for a federal agency to respond to climate change if other federal agencies were not simultaneously accelerating it? Would it not be easier for the NPS to implement timed-entry systems to reduce visitor crowding in the Moab area if its sister agencies were not simultaneously financing the transportation of larger quantities of visitors to the Moab area?

The twin challenges of exponential visitation and climate change are inseparably woven into regional infrastructure. Grappling effectively with them is complicated by the fact that doing so requires challenging assumptions so deeply held that they are rarely recognized as problematic, or even as assumptions at all. In the early 21st century United States, paved interstates and airports are so familiar they are essentially subconsciously accepted as natural features. Economies, investments, political constellations, and personal lives are so integrated into dependency upon them that political leadership – at all levels – has so far been unable to link the science it believes in, understands, and pays for to the policy that would be commensurate to the scale of the threat fossil fuel use is currently posing. Perhaps this is a structural, intractable crisis. Perhaps it is a crisis of imagination.

In 1964, Arches' superintendent Bates Wilson articulated a foresighted and ambitious goal: "Conserving the total environment – to contribute on a national scale to the conservation of the total American environment through the example of the National Parks as radiating influences upon their surrounding communities." In 2022, it is not pride in NPS or DOI performance, but widespread dissatisfaction with over-visitation's impacts that reverberate most poignantly throughout local and ex-local residents' spoken and written reflections. Since the early 1990s, SEUG staff has worked closely with local families and school-aged children to explore together the meaning of Grand County's unique landscapes. Environmental education programs are not one-way conversations. Accelerating community anxiety over exponential visitation's long-term impacts is increasingly difficult to ignore.

In Moab and near other National Parks throughout the American West, exponential visitation has notably accelerated gentrification in gateway tourism communities. Unable to imagine its ultimate scale, in 1941, Arches' custodian Hank Schmidt experienced it personally. That February, he lamented to his supervisors that "Our house has been, literally, 'sold from under us.' Moab is to have a new modern tourist court and the builders elected to pick our present place of residence as the most likely location in town. We are glad to see this much needed improvement come to Moab but are having a hard time finding a place to live." Familiar to many tourism workers displaced by gentrification, the next housing Schmidt was able to find

was of inferior quality to the home he had previously chosen. As he related in March, "We are about to get settled after moving for the second time in a week and hope we can stay put for a while . . . we moved into one of 'Bowen's Bathless Bungalows' (not so good!). You will remember how you almost froze in one of them, and we found they are just as uncomfortable in warm weather." By March 1993, Moab's successful realignment into a tourism destination led SEUG chief of resource management Larry Thomas to note "Housing is a critical issue. . . We will have a serious problem in trying to house people. We need to come up with a solution or our people will not be able to afford to live here." Since that time, housing stock and price-wage gaps have continually lagged behind visitation growth and family-home acquisition as investment opportunities.

Perhaps the housing crisis' most tragic illustration was the nationally publicized murder of two tourism workers in the summer of 2021. Crystal Turner worked at Moab's McDonalds. Kylen Schulte worked at the Moonflower grocery store. This couple lived in a dispersed campsite on the Manti-La Sal National Forest and commuted to work daily. It appears that, in this unsafe living situation, they were vulnerable to stalking and murder by a coworker of Schulte's.¹⁵

The long-term impacts of affordable family housing's disappearance are particularly alarming. In 2021, Moab city police Chief Bret Edge noted increasing "domestic violence, assaults, [and] property crimes" due to Moab's rapid growth; and lamented his department's inability to meet staffing targets due to prospective new hires' inability to find affordable housing. In multiple NPS units, this familiar dynamic's severity is compounded by additional lag times necessary for job posting, application, and background check processes to work their way through the usajobs.gov system in the event that a hired employee backs out prior to their start date. During the 2010s at Arches several fee collection positions, graded at the GS-4 and GS-5 levels, remained vacant for extended periods for this reason. A resultant effect of reduced fee collection hours was a proportional reduction of collected revenue.

Related to housing shortages, price inflation has operationally complicated personnel management by making staff retention difficult, employee turnover high, morale unstable, and job vacancies persistent. For much of its front line staffing needs, SEUG currently observes a dated wage scale, competing to hire college educated professionals for stressful, high-volume, empathy-demanding work at the GS-5 pay grade near communities where job postings for house keepers, cooks, and motel front desk clerks are commonly higher than \$20 an hour. For the past year, the Moab McDonalds has been unable to hire a full staff despite offering pay of \$17-\$19 per hour. While some NPS units and many other federal agencies regularly adjust GS wage scales to local price indexes, to date SEUG has not been able to do so. This fact has undoubtedly contributed to high turnover, decreased institutional memory, weakened public relations, and compromised operational effectiveness.¹⁷

While visitor opinion may be excessively privileged in most journalism and planning related to exponential visitation, public land managers can ill-afford to take for granted this population's legitimate anxieties. At Arches specifically, repeat visitors' accelerating displacement has long term implications for public accountability, oversight, and informed collaboration. The phenomenon whereby "crowding-intolerant people are displaced over time and replaced with more crowding-tolerant people," has been anticipated as early as 1972 and was recognized to be actively occurring by the mid-1990s. That repeat visitors' oversight, advocacy, and written comments have enhanced and supported planning efforts at Arches is abundantly clear in the records of its present General Management Plan (1989), its Wilderness designation hearings (1967, 1969, 1974), and various additional planning efforts throughout its history. It does not appear that a government agency, operating in the foreseeable American political climate, will have an easier job maintaining the ecological integrity of fragile landscapes without the involvement of supportive and knowledgeable visitors.

Adjacent to Arches, exponential use of BLM, SITLA, and National Forest Service-managed public lands by tourists attracted to the area for the fame of its national parks is affecting regional landscapes and sister agencies with less staff and resources to mitigate overuse. The long term impacts of Arches' staff fielding visitor inquiries about various recreational opportunities by directing them to less crowded and less regulated lands outside NPS boundaries are presently unknown. While the park's backcountry staff appears to be making progress establishing a baseline of ecological conditions within that park, it appears that little if any backcountry impact monitoring is systematically occurring outside Arches' boundaries.

The transformation of Arches' unmaintained historic entrance road over the past decade is poignantly remarkable. As recently as 2010-2012, Willow Flats Road provided a reasonably quiet four wheel driving opportunity and uncrowded, free dispersed camping relatively proximal to Moab. Presently, exponential visitation's scope as a regional land management challenge is readily observable from a drive along this road most days of the week from March through October.

West of Highway 191, BLM kiosks along the Gemini Bridges road continue to remind visitors not to disturb desert bighorn sheep from their adjacent lambing habitat. Minimal concern for the future of this iconic specie appears evident in the significant expansion of offloading and parking facilities here where over the past few years off-highway vehicle use has increased dramatically. With a limited staff, the Moab office of the BLM is currently charged with managing 1.8 million acres of land visited by 2-3 million visitors a year. While a formal environmental impact study has not been undertaken to assess potential habitat damage, resource concerns led this office to recommended closing several routes in this area in April 2021. ²⁰

The BLM is also beginning to respond to excessive use by hardening additional dispersed campsites into regulated pay campsites, repeating a process that took place in the 1990s along Highway 128 and Sand Flats Road. While this reduces many impacts, it also changes the character of what camping near Moab means.

Among land managers, "the Instagram effect" is an accepted term describing the phenomenon of exponential visitation to once quiet and seldom visited places following their viral, digital discovery by online audiences. Whether motivated by altruism or acquisitiveness, the psychological engines of sharing and promotion that tourist economies initially relied upon to establish themselves are having faster and more transformative impacts today than ever before.

For park rangers, land managers, and large segments of the visiting public, it has for some time been understood that exponentially increasing visitation is detrimentally impacting national parks. Tangible, physical impacts may be the easiest to observe, quantify, and graph. These include increased wear and tear on infrastructure, increased use of facilities requiring in turn more maintenance, longer lines for essential services, wildlife habitat degradation, increased vehicle-wildlife collisions, trampled vegetation and soil crust compaction. Experiential impacts have proliferated as well. For parks and gateway communities these include higher prices, difficulty finding parking spaces, difficulty finding lodgings or campsites, increased noise pollution from idling engines and human crowds, elevated stress levels, proliferating commercialization, a decline in opportunities for solitude and intimacy, and occasionally the reactive regulation or abolition of formerly enjoyed activities.

The exponential visitation impacts briefly outlined here will not be surprising to anyone currently employed by the NPS. Variations of them have been encountered throughout the system over the past decade. Present trends are in many ways directly comparable to what the agency encountered in the immediate post-World War II period, from approximately 1946 to 1956. Whether it is capable of responding to these challenges as well (or better) as it did in the succeeding era of MISSION 66 is a major, as yet unanswered question.

Historical Context: Arches' Founders and the Positive Feedback Loop

For much of the 20th century, NPS administrators have seen increasing visitation and publicizing their areas as significant agency goals. This need, if often motivated by civic, altruistic, and recreational values; inevitably aligns with tourism coalitions' desires to diversify local economies. This commonality of interests explains the close collaboration that has often existed between NPS planners and tourism boosters, particularly in the founding and early decades of a park unit.

At Arches, this era began during the mid-1920s with the collaborative and cordial relationships NPS representatives formed between themselves and local tourism boosters John "Doc" Williams, *Times-Independent* editor Loren "Bish" Taylor, and geologist and explorer Lawrence McKinley Gould. These networks benefited from earlier connections made between regional tourism boosters and the federal government following the designation of Natural Bridges National Monument in 1909.²¹ In 1933, Doc Williams joined the Moab Lions Club on the condition that it would assist his efforts to boost the recently designated but as-yet undeveloped Arches.²² For the next several decades, this organization served as a defacto local body for collaborative tourism planning between NPS personnel and Moab community members. Arches Custodians Hank Schmidt, Lewis McKinney, Russell Mahan, and Bates Wilson all held titled positions in this organization, as did many of Wilson's senior and permanent employees.

That era of good feeling and collaborative boosterism extended into the late 1960s. Arches' initial, 1967 wilderness proposal drew almost no negative comments from any member of the public involved with that planning process. By the early 1970s, however, polarization had become noticeable. Loren Taylor's son and heir, Sam Taylor, penned multiple editorials critical of the NPS for being overly protective and restrictive. In San Juan County, Canyonlands National Park's slow development strained relations between an NPS increasingly appreciative of minimal development and a local community eager to replicate Moab's success in transforming a quiet, seldom visited landscape into an accessible destination for automobile tourists.

While conservationist warnings about the possibility of over-visitation were heard regionally long before the modern environmental movement of the 1960s and 1970s; in Southeast Utah they were the extreme exception. Most commonly, consciously initiating a self-perpetuating positive feedback loop of exponential visitation via word of mouth, personal experience, and advertising appears to have been the goal of most park founders and early park managers. In Bates Wilson's written records, enthusiastic approval of local boosting efforts at Arches extends into the mid to late 1960s. Demonstrative of this era is a record of supportive correspondence between Wilson and C.W. 'Stubby' Peterson, personnel director of Independent Coal and Coke's coal mine and company town at Kenilworth, Utah. In 1950, Peterson described

his boosting efforts in a letter that was published in the *Times-Independent*:

Your folks in southeastern Utah from Moab all the way down to Monument Valley and over to Mesa Verde National Park, have the greatest hook-up of outstanding scenic wonders of any section of the United States. You are getting more and more publicity every year and a big increase in tourist travel but it looks as if you will have to get the D. & R.G. railroad interested enough to line you up the way the Union Pacific does with Bryce, Zion, and Grand Canyon. . .

I have been plugging for you folks for over 15 years and have sent hundreds of people your way and will continue to do so. Keep up the good work and another 10 years should see so many tourists in Moab that you cannot handle them. ²³

Peterson appears to have been motivated principally by altruism stemming from his explicitly religious appreciation of Arches' landscape's ability to inspire. In April, 1951 with NPS assistance he organized Arches' first regional Easter Sunrise service in the Windows section. Bates Wilson's monthly report recorded the attendance of approximately 250 people. ²⁴ This traditional service continues to this day, where, for logistical reasons, it has long been held at the La Sal Mountain viewpoint.

During the 1920s, as the NPS expanded its relationships with local residents in Southern and Southeast Utah, its representatives most commonly presented visions of national parks that mirrored those held by local tourism boosters. In that age of poor roads prone to frequent wash outs; roads, tourism, and NPS planners had extremely compatible visions of the kinds of transportation and visitation experiences they hoped to establish. Uniting all of them was an enthusiasm for roads – which promised to stimulate new industries serving tourists while simultaneously ending the isolation that had for so long held back existing and prospective development.

Perhaps Arches' most important founder, John "Doc" Williams was a thorough modernist. After moving to Moab in 1896, he discovered the utility of gasoline as a source for pumping irrigation water to his river side ranch in 1902. Before Moab had a functional hydroelectric plant he had experimented with gasoline to power an ice cream freezer for his drug store. ²⁵ In 1904, his friend, lawyer, and newspaper editor Justus N. Corbin saw the impending arrival of automobiles as real enough of a permanent shift in how the American economy was going to restructure itself that he began to aggressively promote improvements along the Moab to Thompsons road. Corbin's son, Jack Corbin, inherited his father's regional telephone company, became Mayor of Moab in the 1950s, and was present as a distinguished guest at the ribbon cutting ceremony of Arches' long-awaited paved entrance road in 1958.

"Doc" Williams served as Moab's doctor from 1896 to 1919. Poor weather in these years occasionally prevented him from reaching patients, and gave him a keen awareness of regional transportation problems. In 1910 he was a founder of Moab's Commercial Club, which had as its first major project a campaign to bridge the Colorado River (1912) and improve the road between it and Thompsons. In 1913 and 1914 he became the licensed agent in Moab and Monticello to sell Studebaker horse drawn wagons. ²⁶

On all roads leading out of Moab, multiple generations of bridges were destroyed by washouts during the 1910s, 20s, and 30s. All dirt roads required frequent re-grading, with new grades occasionally bladed as storms eroded old ones. Many of the worst stretches ran over the Mancos shale geological formation, which turns into deep mud when sufficiently saturated. Regional flooding is well documented and was understood at the time to be worsening as a result of unregulated grazing. In these years, boosters discovered that voluntary and local labor was insufficient to build adequate roads. During and after the 1910s, increasing streams of state and federal money, along with external sources of labor, became available to meet the bulk of construction costs. Understanding this, local boosters including Williams became politically active and cultivated close relationships with potential funding sources.

Not all of local infrastructure planners' solutions are as likely to be understood as entirely ethical by present standards. Throughout the 1910s and early 1920s, Moab's commercial club and business community actively sought, and acquired, uncompensated prison labor for regional road construction. Occasional escape attempts by prisoners thus employed suggest the arrangement's uneven appreciation. In 1942, Williams unsuccessfully investigated "the possibility of establishing a Japanese internment camp for the Arches National Monument utilizing Jap labor for the completion of the highway into the monument . . ."28 As recently as the 1990s and 2000s, Arches managers' facing the same pressures of limited budgets and labor pools alternately experimented with prison work crews and unpaid volunteers to accomplish long deferred boundary fencing projects. 29

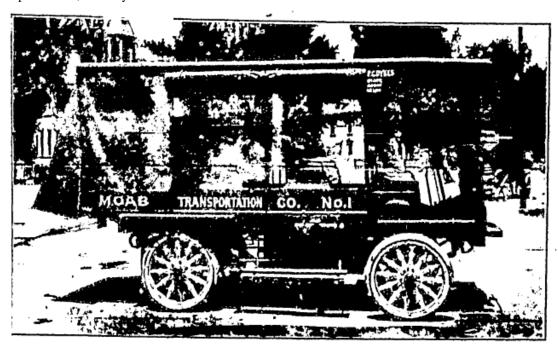
Until his 1956 death at the age of 103, Williams was an extensively diversified businessman. He opened a pharmacy, a hardware store, managed a liquor store, and speculated fairly extensively in real estate. Like his visionary peers, he understood that energy, cars, and roads were both on their way to remaking the country, and could provide an answer to Southeast Utah's long isolation. The first car that a regional traveler drove to Moab arrived in September, 1909. A year and a half later, Doc Williams was getting off the ground the first effort to replace horses hauling freight and people from Thompson Springs to Moab with trucks. This project was called the "Moab Transportation Company." Later it was reorganized into the Moab Garage Company. Their first truck arrived in 1911. Its initial round trip to and from Thompson Springs took eleven hours.



Prominent local Howard Balsley's car, mired within the Moab-Thompsons road, ca. 1910s. Courtesy, Museum of Moab.



Doc Williams with a shipment of Studebaker buggys recently transported to Moab from Thompson Springs. Used with permission, courtesy Museum of Moab.



MOAB TRANSPORTATION COMPANY'S HUGE PASSENGER AUTOMOBILE, WHICH ARRIVED HERE FOR SERVICE LAST NIGHT.

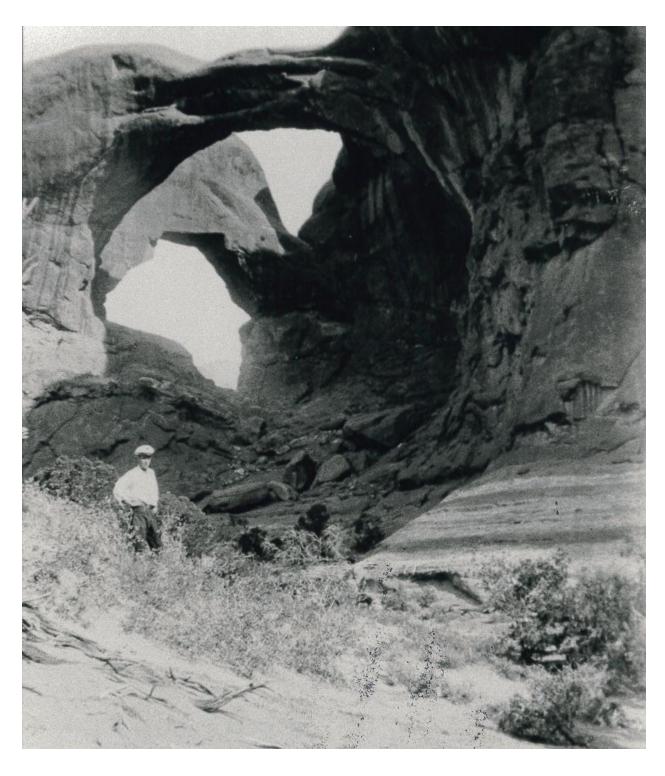
"Stage Line Autos Arrive," GVT, July 14, 1911

As automobile ownership and regional travel increased, Doc Williams became a regionally important gasoline salesman. In 1932, he opened his first station selling Texaco gas in Moab. In 1935, he became a seller for Utah Oil Refining. In 1936, he opened a gas station in Thompson Springs. There he was also the first operator of Utah Oil's bulk station, for which he was recognized as "instrumental in building up a heavy oil and gas volume in this territory." Williams' sons, Ladue Williams and Mitch Williams, were partners in these enterprises. When he was 30 years old, Ladue died tragically in a car accident near Whitewater, Colorado. After serving as an Army and Air Force pilot in the 1940s and early 1950s, Mitch moved back to Moab where he started Tag-A-Long tours. Mitch's son, John, started Navtec Expeditions and continues to own that business today.

In 1939, Doc Williams leased out or sold his gas stations to other operators. However, he stayed involved, economically, with the ways cars were transforming Moab and taking it into the future. In 1951, with postwar tourism increasing and a trickle of uranium prospectors arriving in Moab, Doc Williams (in his nineties) began building a trailer court on the lot next to his house. That house still stands on 100 North today.³²



Utah Oil Co gas station on Main Street, 1938. Used with permission, courtesy, Museum of Moab.



Mitch Williams standing under Double Arch in 1936. Accompanying this photo is the following description: "Note the Vico/Pep 88 oil company cap that Mitch is wearing. He and his father, Dr. J.W. Williams were dealers in Moab." Negative 9-31, Mitch Williams Collection. Used with permission, courtesy, Museum of Moab.

In Moab lore, the tale is often told of the time in December 1938 when president Roosevelt wrote a thank you letter to Doc Williams for "his untiring efforts toward obtaining the enlargement of Arches National Monument." The letter's full text is a remarkable outlier within Arches' founders' discursive records. In it, Roosevelt thanked Williams for "saving for posterity the magnificent scenic area now included," and congratulated him "on your forty years of devotion to the conservation of the scenic heritages of the Arches region and other outstanding areas in Utah and the neighboring states . . . for the cause of conservation . . ."³³ Roosevelt never met Williams, and like Hoover signed legislation affecting Arches that he appears to have had minimal involvement in the preparation of. Neither Williams, nor his peers, habitually used the word "conservation" to describe their actions. While they may have been willing to accept it as a complementary adjective, this study has found very few, if any, instances of "conservation" or "conservationism" being used to describe the activities of Arches founders by themselves or by their peers.

Williams described himself, and was described by others, most commonly as a "promoter of scenic attractions." He befriended many archeologists, geologists, and other prominent visitors and personally explored much of Grand County's unique landscapes with them. He was a rock hound and enjoyed collecting Native American artifacts, many of which he exhibited in his pharmacy before donating them to the NPS to serve in interpretive exhibits. Despite these interests, it is inaccurate to equate current understandings of the word "conservation" with what Williams was actually endeavoring to do. He understood tourism promotion as an effort to get more people, in more cars, into more scenic areas. This was simultaneously a civic project and an investment opportunity. Far from the preservationist wing of NPS founders, Williams and Taylor both enthusiastically supported dam building and regional mineral exploration throughout their careers.

While wilderness proponents and tourism boosters frequently agree that national parks are good things to have, such profound differences in ideology and purpose do not remain submerged indefinitely. Such conflicts of assumptions have a way of remaining fully unrecognized for years or even decades before the implications of their divergence becomes entirely apparent.

Doc Williams' and Loren Taylor's roles, along with those of Arches' first (1938) ranger (and local commercial photographer) Harry Reed, are very analogous to their contemporaries elsewhere who helped to create and manage several NPS units in the southwest. Administered by legendary personality Frank Pinkley from 1923 to 1940, the Southwestern National Monuments organization was severely underfunded throughout the entirety of its existence. Many if not most of the units under its jurisdiction were administered by "custodians" who were paid an honorary dollar a month for their services. On the instances where custodians or rangers got married, internal, congratulatory jokes proliferated throughout the SWNM's centrally distributed monthly

reports that agency effectiveness would now be greatly enhanced upon the acquisition of the newest "ACWP," or "Assistant Custodian Without Pay." Following his 1938 marriage to his wife Carolie, Lewis McKinney encountered the expected humor thus: "We welcome the new Mrs. McKinney into the Service, and I believe there is already talk of making a bird bander of her. Thus does she become a real Honorary Custodian Without Pay and receive her initiation into the organization." As he began his career as a roving ranger in March 1941, Russell Mahan's family was welcomed with a similar introduction:

Newest arrival in the Southwestern Monuments fold is Relief Ranger Russell Mahan and family, who are now living in their trailer parked near the old CCC buildings at Casa Grande. Russ has been getting his 'breakin' doing guide work at the Casa Grande and helping the interpreters . . . The new Honorary Relief Ranger Without Pay, has her hands full with the two youngsters, Dennis (nearly four) and Patsy (six come July), in the crowded quarters of the house trailer. 36

These jokes were at the time taken good-naturedly, and can be understood as the cultural coping mechanisms of a unique professional niche. Pinkley is notable for recognizing the value of monument wives' work, for providing space in the SWNM's monthly newsletter for their voices, and for protesting his subordinates' condition as well as he could without being terminally reprimanded to his immediate superiors.³⁷

Predictably, a long term impact of the NPS' inability to adequately compensate its Southwestern representatives was the proliferation of conflicts of interest. Frequently, uniformed custodians engaged in independent boosting and guiding work that, in most instances, would be immediately recognized as ethically problematic today. Regionally, analogous personalities to Doc Williams, Loren Taylor, and Harry Reed include John Wetherill of Navajo National Monument, Homer Farr of Capulin Mountain, Zeke Johnson of Natural Bridges, and Tom Charles of White Sands.

Undoubtedly Williams had some altruistic motives. And yet, his lengthy involvement with the NPS is overwhelmingly devoted to the boosting of auto-based tourism, a potential revenue generating agent from which he stood to personally benefit as much as anyone else in Grand County, Utah. Beyond his work with Arches, as a county commissioner in the late 19-teens Williams enthusiastically pushed for improvements to the Colorado River road as a scenic route for auto tourists, as well as the "Navajo Trail" route to Cortez. Long before the arches of Arches National Monument were widely known, Williams was fascinated by those of Pritchett Canyon, which he led numerous locals to, described in the local press, and advocated for improved trail construction to be able to more easily reach.

To Williams, scenery mattered. Being outside was pleasant. Encountering archeology

was fascinating. But National Parks and tourist destinations were first and foremost to be "made accessible" to auto tourists. This was understood among and between almost everyone involved with tourism planning regionally throughout the first half of the twentieth century. Innumerable statements attesting to these assumptions run throughout the records of every civic organization involved. In those years, the ones most relevant to Grand County include the Moab Commercial Club, the Moab Chamber of Commerce, the Navajo Trail Association, the Associated Civic Clubs of Southeast Utah, the Scenic Highways Association, the Moab Lions Club, the Midland Trail Association, and the Pike's Peak Coast to Coast Highway organization. Below are a few examples. The digitized *Times Independent* preserves mountains of others:

"Reports received by officials of the Scenic Highways Association which was recently organized at Cedar City . . . give an encouraging account of the progress of the work now going forward on the road from Blanding in southeast Utah to the Natural Bridges of the San Juan county and open up interesting possibilities for tourist travel in that section. . . it is the object and purpose of the Scenic Highway association to take proper notice of all scenic roads that will bring the mysterious beauties of Utah and the west to the attention of the travelling public."

-"Scenic Association Gets Behind Natural Bridge Road," TI, August 23, 1923.

"While the Pike's Peak [Highway 6-50] road will not come directly though Moab, it will pass within twenty-five miles of this city, and by means of well-directed publicity, there is no doubt but that Moab will secure a large volume of the traffic which will hereafter pass through the county over the Ocean-to-Ocean highway. . . Dr. Williams acted as chairman of the meeting . . ."

-"Moab Pledges Solid Support to Pike's Peak Road Project: Local Scenery and Roads to be Featured in National Publicity," *TI*, July 28, 1921.

"Dan J. Nee, representing the American Automobile association [sic]. . . was an arrival in Moab yesterday, on a regular trip through the scenic regions of the west . . . Piloted by George Beeson he left today on horseback for the Windows the wonderfully scenic country ten miles north of Moab, which was recently examined by a government engineer with a view to designating the locality as a national monument. Mr. Nee . . . will also make a report on what he finds to national park officials, and his visit will doubtless prove a 'big aid' in getting 'The Windows' designated as a monument."

-"A. A. A. Scout Here to Photograph Scenery," TI, August 14, 1924.

"Lion J. W. Williams brought before the club the question of deciding on a route to the

Arches National Monument north of Moab preliminary to asking for funds for building a road into that district from Moab. The road committee was asked to investigate the matter with Dr. Williams and it is probable that a trip over the proposed route will be made shortly. There is a possibility that a government conservation camp can be secured for the Arches monument, and Senator King has been asked to use his influence in furthering this project."

-"Many Matters Receive Attention of Lions," TI, April 7, 1933.

University of Michigan geologist Lawrence McKinley Gould wrote a dissertation on the La Sal Mountains and befriended Williams during his early 1920s fieldwork. In letters to the *Times-Independent*, he shared his involvement with the Arches designation process. These letters probably represent the clearest accessible record of his motivations at this time. On October 30, 1924, one was printed that explicitly advocated for "preservation," yet simultaneously argued for "nationwide advertising." Here, Gould embodied the fundamental dilemma always facing the NPS. It is telling that he, an extremely educated man and international explorer, noted no contradiction within the language he chose:

I think . . . you will agree with me that the Moab wonders are quite as deserving of recognition and preservation as were the more famous [Natural] bridges. The more Colorado scenery such as Garden of the Gods and the like that I have become familiar with convinces me more firmly of the desirability of advertising the scenic attractions that are so accessible from Moab. In all the places I have been I know of none where there are so many scenic features within easy reach as is the case with Moab.

It occurs to me that it might be well to attempt to interest the National Geographic Society in the Moab 'Windows.' They might have a very helpful influence in promoting the project to have the area set aside as a National Monument."³⁹

As Gould anticipated, the NPS has spent over one hundred years trying to figure out exactly how "recognition and preservation" of "scenic attractions" "desirable of advertising" is possible. In Southeast Utah, it is notable that early relationships between the NPS and local tourism promoters strongly encouraged an auto-centric vision of what most at the time called scenic tourist *attractions* rather than areas to be protected, per se. This was encouraged by none other than Stephen L. Mather, the NPS' first director. In 1920, the *Times Independent* reported his promotion of the idea of a scenic highway linking Zion, Cedar Breaks, Natural Bridges, and Bryce Canyon, in an approximation of the route driven today by nearly two million tourists a year. Paraphrasing his thinking, Loren Taylor reported that "At present, it was said, Zion National Park is isolated from the other marvels of scenic interest and beauty which surround it through lack of roads, and, while it is an attraction by itself of the first magnitude, the linking

together of the varied whole would be a magnet which none could resist."40

In October 1920, still two years before Alexander Ringhoffer discovered Tower Arch, leading Moabites were eagerly striving to ensure their town would be on the route of such a park to park highway. Mather continued promoting his idea in Utah into 1921, and in late December that year, with the help of Governor Charles Mabey, he organized a planning meeting in Salt Lake City to discuss systematizing this work. This meeting built a rudimentary organization of prominent citizens to look into the possibility of improving the roads leading to national parks in Utah and Arizona and connecting them "in one unified transportation system." Alongside these improvements, this committee pledged "undivided support . . . to an aggressive program designed to 'let the world know' what Utah can provide in the way of scenic attractions."

Robert C. "Bob" Clark, prominent Moabite, Chamber of Commerce president, and coowner of the Moab Garage Company, also attended the meeting. Describing Clark's conversations with representatives of the Denver & Rio Grande Western railroad, Loren Taylor summarized, "they assured him that their organizations are anxious to cooperate with local people in bringing the scenic attractions of southeastern Utah more prominently before the county. They declared that this section has scenic wonders unlike anything else in the west, and that with proper publicity Moab and vicinity would in a few years become one of the most famous meecas for tourists in the country."

These efforts culminated in Mather's dedication of the National Park-to-Park highway Association in 1922. Presciently, Mather predicted at that time "that what may now seem large travel figures will sink into insignificance before the stream of motorists who will avail themselves of the opportunity and pleasures to visit the national parks, with the freedom possible only by riding along in one's own car." Responding to Mather's leadership, F. C. Schramm, for *Scenic Motorist* magazine, sketched the following perspective which Loren Taylor reprinted in the *Times-Independent* on February 2, 1922:

The recent visit of Stephen T. Mather, director of national parks, and the rallying of public-spirited Utahns from every quarter of the state to confer about ways and means of making the most of scenic Utah, is a very encouraging sign. That the movement has the official cognizance of the state administration was evidenced by the enthusiastic support of Governor Mabey.

The aim of the state-wide association seems to be threefold; to advertise our scenic grandeurs, to build adequate roads to them, and to provide ample accommodations in the way of hotels and camps. Three bigger and more urgent things could not possibly be undertaken. We have the scenery in profuse and varied abundance. Nature has seen to that. But so long as it is little known by the majority of Utahns to say nothing of the

outside populace, no great good is coming to the state in the way of fame and wealth.

We have the product, viz., scenic thrills; but we have not yet done what we could to make them accessible. Utah must build good roads to her wonderlands and provide ample camping and hostelry accommodations both along the routes and at the objectives. Until she has done that she will never reap good returns on her advertising.⁴⁴

In March 1917, Loren Taylor described Delicate Arch's setting beneath an early photograph of it that appeared in his paper. With uncanny precision, he described the unique combination of altruistic benevolence and self-aggrandizing one-upsmanship that scenic vacation photographs are capable of bestowing upon their possessors. Nearly a century before the term was coined, he essentially described the psychological motivation behind "the Instagram effect:"

The above gigantic window only shows on what mammoth proportions the scenic panorama of the great inland basin of Utah is based. This window . . . stands like some mighty ruin of what the imagination could picture as a medieval fortress of some prehistoric giant. Looking through it across the valley to the distant hills and ledges, a panorama of vale and crag unfolds which would be the delight of tourists, and one of which they could tell to their less lucky friends, who had not the opportunity to travel and see the wonders of this unique and awe-inspiring region. 45

Twelve years later, reporting on Arches' official 1929 designation, Taylor sketched a vision of potential development, predicated as he saw it upon external funding; convenient, motorized access; and a mutually-beneficially marriage between visitors' psychological needs and local economic growth:

Created by executive proclamation, Moab now has a national monument, located only a few miles from the town. The Arches National Monument, which will be made accessible to the touring public by federal aid, will soon become known the world over for the unique scenic wonders it contains. The creation of the new national monument will prove a big boost in exploiting the scenic resources of southeastern Utah. 46

The Moab-Thompsons road passes within five miles of the park, but at the present time no road into the district is available. It is possible, however, to drive a car within two or three miles of 'The Windows,' and it is expected that an automobile highway to the monument will soon be built. . . With the construction of a few miles of road, the new national monument will become easily accessible to automobile tourists, and undoubtedly will soon gain fame as one of the most unique scenic regions of the west."⁴⁷

A week later, George A. Grant, NPS photographer, visited Moab to take pictures of Devils'

Garden. The *Times-Independent* captured his enthusiasm, which was related in language entirely compatible with Taylor's vision:

Moab, it seems to me, is a paradise for the tourist who is in search of wonderful scenery. In all my experience I never saw a region that presented so many unusual scenic attractions. The time will come when the district surrounding Moab will be one of the most famous scenic localities of the west. The national park service is anxious to exploit this scenery and bring it to the attention of the touring world. You may depend on it that in the future we will not neglect the Moab country. 48

Other NPS voices speaking to Moabites throughout the 1930s continued to promote essentially similar visions of what national parks could be. After NPS director Horace Albright visited Southeast Utah in June 1932, Taylor noted that

Mr. Albright reviewed the work of road building and other improvements the park service had completed in the national parks of the southwest, and stated that the present trip was being made in order to gather data and get first-hand insight into what is needed to make the area's wonders available to the world. He gave statistics showing the great increase of travel to Mesa Verde, Zion, and Bryce Canyon, following road improvement and the building of tourist accommodations during the past few years, assuring the assemblage that San Juan's wonderland would in a short time be made so accessible that the people living here would begin to reap the rewards of their living in such a land.

Directing a scientific investigation of Arches' resources with Civil Works Administration funds during the first three months of 1934, self-taught archeologist and newspaper editor Frank Beckwith encouraged some preservationist attitudes, cautioning locals not to steal any of the dinosaur bones he had found and arranging some where they would be visible to visitors. However, such reminders of legal protections were combined with a strong validation of many locals' financial aspirations. Beckwith's endorsement of economic motivations for national monument creation, and his approval of the positive-feedback loop that word-of-mouth and expanded advertising is capable of initiating, are evident within many of expedition updates he provided for the *Times Independent:*

The citizens of Moab should make intensive use of their natural attractions, advertise it copiously, tell all the world, let all know of its attractions, and see how the mighty stream of tourists, each dropping his dollar or more into the common fund as the news of this remarkable beauty is circulated.⁵⁰

The very purpose of the work is to make as many familiar with the scenic beauties of the area as possible, and thus to advertise it. For as one sees and becomes pleased others will

wish to view that beauty, and a never-ending chain is formed. Thus is formed tourist travel... Moab will benefit with the tourist traffic which makes for prosperity.⁵¹

Both [NPS] officials and Grand County fully realize that the only way in which to 'sell' the Arches monument to the tourist is to make it easily accessible by auto. In no other way can tourist trade be brought about.⁵²

The matter of a road past these splendors, and on to the arches, is of paramount importance, as the tourist will not travel anywhere nowadays if any discomfort attends the detour. Those few who still enjoy horsebackriding and more particularly a pack train, are fast disappearing before the man who merely pushes the accelerator to get anywhere. ⁵³

Despite Arches' slow pace of development, proceeding as it did through a boundary review process that lasted until 1938; local excitement remained high over the park's potential. In 1934 – thirty years before Utah Senator Wallace Bennett began introducing bills in Congress to re-designate Arches as a National Park as "an important step in the development of the tourist potential in Southeastern Utah" – Loren Taylor interpreted the boundary revision process as an opportunity to push for park re-designation for the same reason: "when made into a national park, which ranks higher in importance than a monument, more money would be expended in developing it, better roads would be made, and the consequent benefit to Moab would be considerable." ⁵⁴

Photographs showing Monument Valley tourism booster Harry Goulding's achievement of piloting the first car into Arches have frequently been used as interpretive materials in explaining Arches' origins and early development. Less commonly has Goulding's 1936 vision for Arches' been heard. As Taylor reported, "[Mr. Goulding] is anxious to tie up the Moab attractions with the great scenic region in Monument valley so that tourists can be diverted from one area to the other. . . This road is now open and needs only advertising to pull a vast number of tourists each year." Similarly, Doc Williams continued to boost expanded tourism development with primarily financial arguments. ⁵⁵

Chief administrator of the Southwest National Monuments from 1923 to 1940, Frank Pinkely made his own vision for Arches' development clear in a 1938 letter to the director of the NPS. Agreeing with the basic developmental vision of most park founders and local boosters, he envisioned a developed, automobile-friendly Arches National Monument as a convenient consolation for less adventurous visitors unable or unwilling to make the longer, more difficult treks to either Rainbow Bridge or Natural Bridges. Natural Bridges had been designated in 1908, but remained difficult to access for most of the year due to poor roads, snowed in mountains, and the lack of a Colorado River crossing or road from the west. As Pinkley explained,



Harry Goulding's car at the Garden of Eden Viewpoint. Note, Doc Williams, passenger, in front seat. Photo by Harry Reed. Used with permission, courtesy, Museum of Moab.

There is no master plan for Arches National Monument. Preparation of a development has been deferred pending approval of proposed boundary extensions not as yet fully determined as to the extent but which will probably add approximately 30,000 acres to the present area.

It is tentatively planned to construct an entrance road from the nearby highway to the Windows section of the monument to a point at which no less than seven large natural arches may be observed. Such construction will make available to the 'Pavement driver" really fine examples of this type of erosion. Arches National Monument has

been selected for this development because of its proximity to a highway which makes it the logical point at which to exhibit natural arches to those persons who have neither the time nor the money to make the more arduous and expensive excursions to Natural Bridges and Rainbow Bridge National Monuments. Natural Bridges and Rainbow Bridge National Monuments are, tentatively, to be reserved for those persons to whom thoroughly primitive wilderness country, difficult of access, presents attractions which would be spoiled if approach could be made over the roads.

Residences for the Custodian and one additional permanent employee are planned near the administration and public reception building in the Courthouse Towers area. These employees will be available to give free guide service and to administer, protect, and maintain the area. A public comfort station will also probably be provided, as will water and sewer systems, and the other corollaries of development to facilitate public use. ⁵⁶

This is not to say that alternative visions of regional land use, designation, or protection did not exist in these years. They did. But they are much less well preserved in available historic records. Appreciations of limited development, backcountry travel, and uncrowded exploration appear more frequently in travel literature from the late 1940s onward.

One unique exception was voiced in Moab during the planning process for the proposed Escalante National Monument in the 1930s. Moab's booster community was warmer to that proposal that most of their peers elsewhere in the state. However, they did advance caveats asking that national monument designation would not interfere with traditional economic activities or potential future water projects. Amid these debates, H. Dodge Freeman of Chicago penned a 1936 to Loren Taylor that was published in the *Times Independent*. In August 1935, Freeman and guide Dave Rust began a 3-month pack trip through present day Canyonlands National Park and adjacent lands via pack train. Sharing his reflections a year later, he advocated explicitly for the preservation of undeveloped areas as "wilderness." It is notable that the NPS in southern Utah had by this time achieved such a reputation of supporting development within the areas it managed that Freeman saw canyon country's best chance for preservation in its *not* coming under NPS management. As he argued,

I was somewhat concerned with reports that a new national monument was being created out of the marvelous country we had passed through, but never for a minute did I attach any credulity to these rumors – I must confess that I considered them the result of Zeke Johnson's able though somewhat futile (to me!) promotional propaganda. But when I picked up the *Times-Independent* of May 28th today . . . I was quite startled to find how near a reality this scheme is apparently getting . . .

Of course I realize that any pressure that may be brought to bear against the creation of Escalante National Monument will come mainly from those ranchers who graze their

cattle and sheep in the proposed area to be withdrawn; and I certainly hope they raise heaven and earth to retain their rights . . .

My impression of national parks and monuments are that they are basically beneficial to American life. There can be no doubt that the idea of bringing some scenic masterpiece such as Grand Canyon or Crater Lake, to the 'doorstep' of the average American is an extremely good one. Furthermore I am quite agreeable to the idea of creating national monuments such as the Navajo, Dinosaur, or Petrified Forest in order to protect some scientific oddity or some archeological wonder from the marauding public.

I agree also that with the creation and attendant advertising of such areas, financial benefits are derived by those living in the proximity of said areas. This is all well and good and the advantages are shared alike by "visitor" and "visited," shall we say; but when the whole idea begins to take on the aspect of a Roman Holiday in land withdrawal and territorial expansion, I begin to doubt the intelligence of the "brass hats" in Washington . . .

To me the charm of the wilderness along the Colorado rests far more in its inaccessibility and freedom from trodden paths than in its admitted wonderful beauty. I often asked myself last summer whether I would get the same sense of pleasure and enjoyment I got riding through that country on horseback if I were to go through by motor bus or auto with a lot of rubberneck tourists ogling around and making inane remarks — I trust you can satisfy yourself as to the answer that came to me . . .

It has always been encouraging to me to know that out there in your country there lies one large area, at least, that represents something wild and remote, even in the material days we are living in at present. What a pity it would be to destroy this – even to touch it. Why shouldn't the government take steps to preserve such a territory by forbidding roads to enter it, just as it takes steps to create national parks for the opposite reason . . . isn't it time to move towards a new policy of creating so-called primitive areas whereby those few (?) people who choose to can re-create for themselves some of the individuality, and to be trite, ruggedness of those who have gone before us? It certainly seems so to me, at any rate, and it is my fond hope that others should feel the same as I do. ⁵⁷

Historical circumstances conspired to keep paved roads out of Arches National Monument until 1958, when Doc Williams' surviving wife Alvina cut the ribbon opening the present route from the Visitors' Center area to Balanced Rock. Paved spurs to the Windows Section and Devils Garden were completed in 1962 and 1963 respectively. Prior to the sweeping changes of those years, a generation of NPS personnel working for the Southwestern National Monuments forged a unique culture shaped in part by an appreciation of being able to live and

work in lightly developed parks, with limited resources, even more limited staffs, few visitors, and essentially undeveloped surroundings. Historian Hal Rothman's administrative history of Navajo National Monument describes this culture, and its reaction to Mission 66, in extensive detail.⁵⁸

Speaking for that generation at Arches, Custodian Lewis T. McKinney found his own meaning in the landscape of a park with himself as its sole employee and a development program deferred for the duration of World War II. Anticipating wilderness designation debates still twenty-five years away, he echoed Freemans' thinking when he noted, in his report for the month of October 1942 that "Horse-back is the only way to see the Arches and really see it as it should be seen. You can ride along and let your legs hang down while you use your eyes to look over everything in detail. You don't have to worry about getting stuck, running out of gasoline, or your tires." ⁵⁹

In 1939, NPS employee Harold C. Bryant noted the effects of increased visitation at Grand Canyon with alarm in report published in the *Region III Quarterly*. While Bryant was not able to offer specific solutions to the problem, he poignantly articulated a clear understanding of it:

Through the years we have discovered that it is not difficult to select suitable areas for protection but it is a very difficult thing to hold them unmodified . . .

As soon as we invite millions of people into the national parks we are confronted with the need for accommodations requiring man-made buildings and campgrounds. The higher the volume of travel, the greater the difficulty of restricting development and preventing modification of the terrain. A heavily used campground endangers tree life; automobiles run over and kill squirrels; needed drinking water pumped from springs may leave drought conditions in a whole canyon.

Most of us perhaps feel that a certain amount of development for the care of the public is well justified, even if it means loss of primeval conditions, but there remains a greater difficulty: that of keeping park areas free from industrial and commercial development. Even though most people may definitely oppose commercial development, exploitation of the national parks by selfishly-interested people is a constant menace. Perhaps a review of some of the attempts at exploitation (and some of them have been successful) may be helpful in forcing a picture of the grave danger that continually confronts the defenders of our National Park System.

Wherever crowds congregate there are men who wish to introduce money-catching devices . . . In national parks they should be strictly banned . . .

When we see continual changes made of primeval areas, it is time that we lay full plans for saving some areas in true primeval condition. This can only be done where roads are prohibited . . .

Noise is nerve-wracking. More and more, man needs opportunity to get away from those things which wear upon the nerves. Through the ages he has found relief by the scenery in great forests. The appeal of true wilderness is found in quietude and solitude as well as in the unspoiled beauty of natural surroundings. It is increasingly hard to get away from the noise of men! Wilderness areas, far from the haunts of men, now reverberate with the sounds made by automobiles, outboard motorboats, or air-planes. We may countenance horseback travel but motorized equipment largely takes away from the feeling and inspiration of vast undisturbed terrain. The attempt must be made to save some places from undesireable encroachment and keep them roadless and as noiseless as possible. Like other ideals, this is increasingly hard to attain, for there are those who demand all the modern methods of travel . . .

The wilderness character of national parks is preserved by prohibition of airports and roads but it is a constant fight to prevent such developments. . .

It is quite evident from the park problems enumerated above that it takes more than a law creating a park to attain true conservation of the features it possesses. High ideals, and adherence to standards alone will prevent the gradual sapping away of all the park features which can be readily utilized for commercial gain. There are some things so precious that they are priceless and placed under constant guard. So may it be with the national parks!⁶⁰

Arches' history has been influenced by multiple public lands management philosophies. For some, modernist paradigms of energetic development persist into the present, and the purpose of Arches National Park is primarily economic. For others, different values predominate. National parks are in part valuable because they are so often primarily *natural* parks. The experience of *how* one encounters impressive landscapes, distant views, physical challenges, and unique rock formations matters as much, or perhaps even more, than what those resources are themselves specifically made out of or shaped like.

Visitation management in national parks is complicated by such diversities of constituent purpose. Not only do state congressional delegations, gateway community residents, park staff, and park visitors have distinct preferences; but an evolving society periodically finds itself in conflict with its predecessors' values, plans, and architectural legacy. It is notable that visitation to Arches National Park has exceeded the wildest expectations of, to date, three generations. Not only has the experience of visitation changed through the sheer *quantity* of visitors, but the

quality of recreational opportunities within an increasingly crowded park has changed as well.

It is not likely that any single number of visitors per day, or per hour, or per destination at one time, will ever be found to be so universally agreeable that it can be mechanically implemented to the satisfaction of all park users and stakeholders. Yet a broad agreement probably exists that beyond certain thresholds, visitor satisfaction and ecological impacts cross frontiers of diminishing returns – particularly for those who may have traveled very far with the expectation of enjoying a quality experience. Enduring successive waves of exponential visitation, Arches' managers from 1948 through the 1980s slowly began to recognize the inevitability of implementing some kind of a visitation management framework. In the 1990s, these efforts culminated in the Visitor Experience and Resource Protection program. To understand where VERP came from, a brief review of visitation planning prior to the 1990s is helpful.

Visitation Management – Growing Awareness of an Inevitable Problem

Prior to 1948, access to the Devils' Garden and Delicate Arch areas of Arches National Monument was provided by a pre-park, poorly maintained dirt road ranchers had built into Salt Valley from the northwest and which in good, dry conditions could be driven, in the wash itself, all the way to Wolfe Ranch. In wet or muddy conditions this was much more difficult or impossible. Access to Devils Garden began with the same road, and drivers followed a spur to park at the base of the prominent Dark Angel Spire. Hiking towards it, visitors set out to find Landscape Arch by traveling an approximation of the current trail to Double O arch in the opposite direction.

Access to the Windows area was "temporarily" provided with a road built by Civil Works Administration labor to support the Frank Beckwith expedition in early 1934. It initially terminated near the closest available water, Willow Spring. Later it was extended to just west of Double Arch. While cheap to build in the short term, this road proved a perennially expensive and time consuming maintenance headache. Not only did it require a crossing of flood-prone Courthouse Wash, smaller washes quickly formed across it where grader blades removed coverings of plants and biological soil crust, exposing the underlying loose sand to erosion. As early as March, 1934, extra work was required to haul shale onto the worst sections. Shaling temporarily mitigated erosion but did not stop it. A third significant problem was the tendency of windblown sand to migrate across the road, miring vehicles. It is impossible to overstate how draining the need to constantly repair this road was for park managers between 1934 and 1958. Detailed descriptions of this work are the single most frequently commented upon aspect of park management in the Custodians' reports of these years.

In contrast to recurrent federal appropriations for road and bridge construction and maintenance along the Moab to Thompson road and Highway 6-50 north of Arches, it was not until 1956 that the NPS managed to secure substantial appropriations for a long awaited permanent entrance road. Impatient with the slow arrival of long-hoped for but elusive NPS investment, Loren Taylor, then a Grand County Commissioner, arranged for a jointly financed program of road construction between 1947 and 1948. This was paid for mostly by Grand County and Utah's Department of Publicity and Industrial Development. While still a dirt system requiring significant maintenance, it connected all main park features to the existing Willow Flats entrance (with the exception of the Courthouse Towers area which was visited via hiking from the headquarters area). This system's 1948 completion facilitated a significant spike in visitation. Travel journalists were among the first to take advantage of the new system with substantial Arches coverage appearing in *Buick Magazine*, the *Ford Times*, *Arizona Highways*, *Desert Magazine*, and *National Geographic* in the late 1940s.

This visitation spike was slowed by the beginning of Moab's uranium rush that peaked

between 1953 and 1957. Prospective tourists, as well as Hollywood film crews (who had pioneered relationships with Arches staff and the Moab region in the early 1950s), found Moab's campgrounds and hotels almost entirely full in these years. In 1958, the exponential visitation pattern resumed for two reasons. While the paved road attracted abundant national publicity and made travel to Arches easier than ever, the Atomic Energy Commission (AEC) substantially dampened the tenor of uranium prospecting in that year. Its multifaceted approach to stimulating the uranium industry had been successful. Stockpiles of processed uranium were higher that military purposes required, and the hoped for nuclear power industry remained slow to come online. In 1958, the AEC stopped offering most of its subsidies for new prospecting and announced it would only be supporting mines and mills with whom it already had relationships. Hotel rooms in Moab began to be available again. 62

An oil prospecting boom in the early 1960s did not replicate the amplitude of uranium "fever," but it did ease economic anxieties and re-enforced the notion that mineral development was Grand County's best bet for a stable long term future. Unlike uranium's more dramatic 1984 collapse, its 1958 tapering allowed regional economic planners to continue exploring tourism as a growing, although secondary industry.

Minor visitation ebbs occurred due to energy crises and oil price spikes in 1974 and 1979. A small recession, and a damper upon international travel in late 2001, as well as the 2008 recession, also calmed visitation curves. A plateau of approximately 1,000,000 visitors per year that existed from 2009 to 2013 was dramatically and now famously shattered by the "Mighty Five" advertising campaign undertaken by the state of Utah in 2014. By 2016, an extra 500,000 people (a full 50% increase) were visiting Arches than had been there four years previously.

SEUG archives preserve a discursive record in which perceptions of visitation increases evolve from optimistic confidence to growing anxiety and eventual alarm. The following quotations demonstrate this tone's evolution:

"[Chief Naturalist of the NPS Earl] Trager declared that he had long heard that Moab was the most cooperative community in the experience of the park service. This local cooperation, he stated, will pay handsome dividends in the future as it has made possible the development of the Arches, which will unquestionably be followed by a vast influx of tourists."

"He mentioned several places in the west which have been converted from sleepy villages into thriving cities as a direct result of park service development. He predicted that Moab within a few years will undergo a surprising growth due to the exploitation of the scenic attractions."

- Arches Unrivalled in Diversity of Scenic Interest," TI, May 30, 1940.

"The recent additional publicity this monument has received in various magazines, etc has caused our travel to continue to soar. The stock questions from our visitors are, 'Why haven't we heard about this monument before', and, 'why don't they build better access roads.""

- Arches Custodian Russell L. Mahan, August 26, 1948. 63

"As a result of such interpretive presentations together with word-of-mouth publicity, the future should find an ever increasing proportion of travelers coming to the monument prepared to spend several days. When this type of 'stay-over' travel develops, the interpretive program will have to be expanded and amplified and adjusted to meet its demands."

- 1950 Revision, Arches National Monument Master Plan. 64

"In spite of disagreeable weather during the first half of the month our travel was boosted to 11% over last April, by a record day on Easter Sunday, when 1397 visitors entered the Area in 279 Cars, We found it difficult to seat this many people at our three picnic tables and consequently we now have a great many picnic sites which do not show on the Master plan."

"Four more pit toilets would have solved some urgent problems and made the cleanup job a more pleasant one."

- Ranger Earl Worthington, April 25, 1952⁶⁵

"The constant stream of visitors seeking information at Headquarters has made it impossible to accomplish, on time, the end-of-the-year office work, hence the lateness of this report and others. I have my eye hidden on a well hidden cave in the Fiery Furnace, as an office."

- Bates Wilson, June 29, 1952.66

"Life Magazine's April 13 issue featured a beautiful cover picture, by Josef Muench, of the Delicate Arch. We understand that this is the first time that an attraction in one of our areas has appeared on the front cover of a magazine with the widespread circulation that Life has. This front cover splash seems to have set off an Atomic Chain reaction, for in the past week a number of calls have been received from other national publications requesting detailed information on Delicate Arch and other points of interest both in and

outside of the monument."

- Bates Wilson, April 26, 1953.⁶⁷

"[Senator Wallace F. Bennett] said that Arches, comparatively speaking, is visited by far too few persons. 'A principle reason for the relatively small number of visitors is, I am sure, the fact that Arches has not received national park designation. Its present national monument status does not carry with it in the public mind the prestige associated with national parks."

- "Bennett Asks Park Status for Arches in Bill Today," TI, June 20, 1963.

"Development for visitor and administrative uses should be carefully controlled, under three main precepts: administer the area to protect the visitors and the significant natural resources; make a total park experience available for visitors by suitable roads, trails, overlooks, campgrounds, and a comprehensive interpretive program; and reserve appropriate portions of the Monument for proper wilderness uses."

- Naturalist Stanley G. Canter, "Master Plan for Arches National Monument," June 1963.⁶⁸

"Due to termination of our seasonals and continued visitor use protective duties have required about 20 hours of contributed time during the month."

- Ranger Roby R. Mabery, October 2, 1963.⁶⁹

"The area in which the new camping facilities are located has room to be expanded to 120 units and Mr. Wilson envisions a not too distant time when the number of over-night visitors to the Monument will make the expansion a must in further development of accommodations amid the outstanding scenery of the Arches."

- "Arches Opens New Facilities For Overnight Campers," TI, July 9, 1964.

Among the many Master Plans developed over the years for Arches, perhaps the most farsighted and optimistic was prepared by the park's first Naturalist, Stanley G. Canter, and was adopted by Bates Wilson in June, 1963. Reflecting the NPS' 20th century highpoint of public confidence and congressional support, the plan anticipated the long-term preservation of quality experiences through competent monitoring and professional administration. As Canter expressed it, Arches' mission was

To bring the visitor into an intimate contact with. . . scenic grandeur, geologic

phenomena, and natural history . . . to develop among the visitors, through physical participation, intellectual and esthetic experiences which are afforded in the highest order . . . The monument has something to offer all types of visitors. For the visitor who has only a short time to spend, or for those who are unable to hike, paved roads are available to take them into areas where they can see spectacular arches and enjoy typical scenery of the monument. For the visitor who enjoys hiking and has more time to explore, many miles of trails will lead him to unique areas where he may benefit from a closer association with nature . . . Preserved and interpreted adequately, Arches National Monument will stimulate the visitors' interests from the moment they enter the area and provide intriguing things to do and see, affording rewarding experiences and refreshments of the spirit."⁷⁰

Anticipating the pattern of increased use to continue, Canter argued that

Development for visitor and administrative uses should be carefully controlled, under three main precepts: administer the area to protect the visitors and the significant natural resources; make a total park experience available for visitors by suitable roads, trails, overlooks, campgrounds, and a comprehensive interpretive program; and reserve appropriate portions of the Monument for proper wilderness uses.⁷¹

Another explicit break with past practices of chasing increased use with expanded infrastructure is evident in a list of goals prepared for master planning by Bates Wilson in August, 1964. In it, a concept of carrying capacity is clearly articulated as a management planning priority. This document is incredibly foresighted and anticipates many of the recommendations later made by the VERP program:

Goal 7 – Data on Visitor Use: To obtain complete data on visitor use of and recreation to facilities and services, as a guide to anticipating future trends and providing better public service.

- a) Maintain a file on all available figures concerning visitor use and analyze figures to best of ability to predict trends.
- b) Utilize staff personnel as much as possible to conduct visitor use surveys.
- c) Apply results of visitor use survey, and predictions to Master Plan for future development, and for use in planning interpretive and protection programs.

Goal 8 – Determining Park Capacity: To support all park programs with accurate measurements of the present and potential capacity of the park to accommodate rising visitor use in years to come.

- a) Keep a permanent record of statistics on visitor use of all facilities."
- b) Indicate in the Master Plan the trends of participation in all visitor activities and estimate the total visitor entry into the park for ten years in advance."

- c) Estimate when unreasonable overcrowding will take place at the critical points roads, visitor center, concessioner facilities, trails, interpretive programs and provide in the Master Plan remedial action in advance of saturation."
- d) Take immediate action for sites already saturated and in danger of impairment.

Goal 13 – Limits of Development: To define limits for all development, with particular concern for preserving the setting of primary features.

a) On the land use plan the maximum extent of the area appropriate for development of visitor and management facilities will be identified. This will assure that future development will not exceed those defined limits. Facilities that damage or intrude on the primary resources should be scheduled for elimination or relocation.⁷²

To limit development's impacts within the park's boundaries, Wilson committed Arches to "Encourage development of facilities in Moab, Utah, and on lands adjacent to the park." Wilson was also committed to preserving backcountry recreational opportunities via informed management:

Goal 11 – The Primitive Wilderness: To continue to reserve the primitive, roadless wilderness for all those visitors willing to use the wilderness on its own terms.

- a) Preserve the roadless wilderness for traditional forms of wilderness use.
- b) Encourage back country use for more persons through better informational programs.
- c) Provide sufficient ranger patrols in the back country to insure protection to the visitor and to the park resources.

To Wilson, primitive recreation was to be actively encouraged through a twelfth goal: the concept of "wilderness thresholds," or interface zones between trailheads and the park's more remote areas. His chief initiative in this regard was the organization of regular Fiery Furnace tours along a navigable route that was formally institutionalized in 1964. This tour's objective, as explained in this document, was to "stimulate interest" in the "further benefit, responsibilities and requirements of using the more primitive back country."

Anticipating VERP, Wilson also recommended that Arches "Initiate a program of visitor research to determine the need for and effectiveness of the park's programs and facilities, as a means of offering better service to visitors, reducing impact of development and use on park resources and implementing the objective for which the park was established."⁷⁴

By 1967, some NPS planners appear to have been moving towards adopting a serious attitude to determining and sticking to defined carrying capacities. Occasionally, draft commitments to do this were articulated more strongly than some planners felt was desirable, or

perhaps, even possible, to officially commit to. A proposed standard for Master Plan document construction in May of that year included a profound paragraph: "Paragraph 8: To support all park programs with accurate measurements of the present and potential capacity of the monument to accommodate rising visitor use in years to come." In a letter he penned to his peer at the Office of Resource Planning, the then-Chief of the Division of New Area Studies and Master Planning passed on reviewers' recommendations that this paragraph be deleted and not appear in future instructions for Master Plan development. ⁷⁵

In late 1967, a Wilderness Plan for Arches and Canyonlands, prepared by Harold F. Wise and William J. Hart from the organization Robert Gladstone & Associates, articulated the problem of visitation explicitly, and argued for a break with past practices of attempting to "catch up" to increased visitation with increased infrastructure. This plan strongly criticized a "self-defeating cycle in which facilities intended to relieve overcrowding actually increase visitor numbers to such a degree that expansion is required. As a consequence, valuable and appealing features of many of our natural 'protected' areas – the availability of very high quality outdoor recreational experiences – have already been severely altered and are threatened with even greater alterations."

While some in NPS management were moving towards wilderness designation as a method of preserving experiences as well as areas, longtime NPS supporter and Utah Senator Frank M. Moss articulated an opposite view. Championing the slogan, "Parks are for People," in 1968 he argued the benefits of spreading out visitation to less used areas of a park as an alternative the wilderness designation process. As Moss saw it, "The major reason our parks are so crowded – aside from the fact that we do not have nearly enough of them – is that we are wedging from 90 to 95 percent of all of our visitors into 5 percent of the space, and walling off all of the remaining acres in their natural state to be visited by perhaps one out of 10 of those who pass through our national park portals."

By May 1969, Arches' staff had considered incorporating such thinking by developing several additional trails. These included a loop trail in Herdina Park, a trail running the length of Courthouse Wash, a trail from the Moab boat ramp to the Windows section, and an expanded Devil's Garden trail system. This expanded network remained acknowledged as a planning goal in Arches' 1973 Master Plan, and appeared on a list of 1977 management objectives with goal of "encouraging visitor use of representative backcountry." During Arches' General Management Planning process in the late 1980s, resource protection concerns led park managers to decide not to construct these trails.⁷⁸

Arches' administrative records from the late sixties into the early seventies are dense with voluminous quotations in which reactions to increased visitation were explored. Support for determining and sticking to carrying capacities is strongly recommended by much of Arches'

planning literature in these years. ⁷⁹ To this, the student of this era would do well to also consider the significance of the column, "From the Canyons," that appeared in the *Times Independent* from 1969 to 1971. Here, park staff explored various aspects of ecology and natural history, demonstrating and supporting a rising environmental movement that became a mass phenomenon after the first Earth Day in 1970.

In 1972, Arches and Canyonlands' Resource Management Plan signified a more formal, scientific approach to environmental protection within these parks' boundaries. Specifically, it acknowledged that "As visitation continues to increase it will become necessary to limit or modify visitor use to prevent resource degradation," and specifically instructed park managers "To develop more meaningful management programs, a comprehensive research program will be developed to acquire the facts needed to develop a sound resource management plan, visitor use plan and to establish optimum carrying capacities." This plan recommended that, "each district ranger will conduct a study to identify areas . . . where over use has caused obvious deterioration. For each area identified he will set a tentative carrying capacity and submit a management plan for adjusting use to carrying capacity. Upon completion this report will be submitted to the Chief of L& RM "80"

In late 1973, Arches' Master Plan recognized that, in the past eight years, visitation had doubled. It suggested that "In order to cope with future increases in visitation, the master plan proposes two lines of action: (1) modification of existing roads and trails and (2) eventual implementation of a mass transit system." It is likely that the historical window has closed on the capacity for this proposal to be implemented as it was originally written:

Current use in this area will continue with the provisions for activation of a public transit system when visitor numbers exceed carrying capacities. As an interim step, private automobiles will continue to circulate on the road system. A modification of the parking area at the visitor center to function as a terminal will be required. The visitor would then leave this car at the visitor center and travel the scenic loop via the public vehicle system. The vehicle will stop at features and trail heads, allowing the visitor to disembark, spend as much time as desired experiencing the resources and/or hiking the trail system and then catch a later vehicle. By eliminating the automobile this system relieves traffic congestion, allowing a smoother flow of visitors. Naturalist or concessioner explanations of park features while on board will provide an important personal contact with the visitor.

Finding space in the current visitor area to provide a staging area for the amount of cars expecting to enter Arches National Park in, say, the year 2023, might be as impossible of an errand now as finding the funds to construct it, or as finding the housing to keep a sufficient number of drivers employed. Sufficient time has also passed to assess the performance of shuttle bus systems at national parks where they have been implemented. While they can reduce the

number of cars on roads, they do, at great expense, subsidize exponential visitation rather than stabilizing or reducing it. SEUG messaging under Kate Cannon's administration regarding the drawbacks of shuttle buses as a "silver bullet" solution for over visitation during the mid-2010s appear extremely prescient, and are confirmed by peer experience. As Pamela Edwards, Shuttle Bus Systems Program manager at Grand Canyon National Park summarized in a 2020 interview, "Buses do not fix the number of people coming into a park; the levels of visitation. They address vehicular numbers and can help control the number of people in a given place at one time, but they do not fix overall congestion (of people) and the resource effects too many people can have on a place. . . shuttle buses will not affect high visitation - just vehicular congestion." 82

Whether or not a mass transportation system is an appropriate solution to an over visitation problem, at the time of Arches' 1973 Master Plan's adoption, increased visitation was not understood to be sufficiently problematic to experiment with such a system at that time. However, that plan is notable as an early instance where, after the need to assess and stick to carrying capacities had previously been agreed upon, revised transportation engineering is proposed – rather than lotteries or reservation systems – as a way to accommodate exponential visitation without fundamentally confronting it. The possible limitations of this approach do not appear to have been explored in depth at this time, and a "no action" alternative was adopted with the understanding that the problem had not yet gotten severe enough to require a managerial solution.

As more recent examinations of mass transit feasibility have confirmed, the additional responsibilities imposed by a mass transit system's planning and implementation would also have required significant financial resources. In retrospect the 1973 Master Plan is notable for continuing to project the MSSION 66 era's confidence into the future. Throughout the 1960s and into the early 1970s, Arches' managers assumed that Congress would continue to provide the levels of funding necessary for them to grapple with their major foreseeable problems – adjusting and constructing new infrastructure such as additional employee housing, or other visitor amenities, as necessary. Similarly, multiple backcountry management statements and plans written and adopted since this time have committed Arches to, in varying language,

"Provide sufficient ranger patrols in the back country to insure protection to the visitor and to the park resources" (1964).

"Determine or monitor the ecological effects of human use in the backcountry" (1972).

"Limit or modify visitor use to prevent resource degradation," (1972).

"Study to identify areas of [each] district where over use has caused obvious deterioration," (1972).

"Work up a Backcountry Use Plan . . . including carrying capacities of the areas," (1972).

"The establishment of an effective monitoring and data gathering system," (1973).

Establishing "a carrying capacity . . . before human impact becomes excessively adverse," (1973).

"More extensive patrol of the backcountry," (1973).

"Include an inventory, assessment, and monitoring of backcountry campsites," (1986).

"Backcountry visitation and consequent environmental impacts will be monitored and evaluated to assure protection of natural and cultural resources and to maintain a high quality backcountry experience," (1988).

"To inventory and assess the biophysical condition of backcountry camping areas" (1989). 85

For half a century, finding the financial resources to implement such farsighted plans in practice has proven to be much more difficult than developing them at the planning level. At Arches, no systematic, replicable backcountry monitoring program appears to have ever been developed prior to a conscious effort to create one that began in 2017. The only monitoring that has occurred has been anecdotal, with, by the 2010s, shifts dedicated to backcountry rove time provided to law enforcement rangers but not to the interpretive rangers responsible for fielding most backcountry camping inquiries and personally issuing backcountry camping permits.

By the mid-seventies, NPS appropriations reflected a period of high inflation and budgetary stagnation. The funding levels, and agency confidence, of the MISSION 66 years never returned. With less money available to address increased visitation, Arches' managers were unable to implement most visitation management strategies that their predecessors had previously identified.

Visitation statistics also note a coincidental softening of visitation growth immediately after multiple periods where visitation management strategies were seriously considered. The farsighted planning of the early 1970s was followed by the energy crisis of 1974, which significantly reduced visitation. While 274,900 visitors came to Arches in 1973, the number dropped to 166,900 the following year, and the 1973 number was not exceeded until 1976. Undoubtedly, this coincidence of international politics and commodity markets sapped some of

the urgency from the carrying capacity momentum of the early 1970s. Similarly, the latter 1990s saw a visitation peak of 869,980 in 1999 that fell slightly and was not exceeded again until 928,795 visitors arrived in 2008, after which time exponential growth resumed. 86

Arches' planning records suggest greater foresight than the short term fluctuations of its visitation statistics. Thus, in 1977, its managers identified the following objectives: "4. Provide a balance between preservation and use by establishing and enforcing use capacities," "11. Provide a balance between preservation and use by analyzing, implementing and enforcing use capacities. Initial analysis will concentrate on hiking trails and paved roads." ⁸⁷

Arches' administrative records for the years' 1984-1985 are notable for revealing a significant retreat from earlier commitments to carrying capacity planning. From May 1983 to May 1984, park staff grew alarmed over a 50% increase in visitation to Arches. That November, Resource Management Specialist Katherine Kitchell drafted a "Recreational Impact Assessment and Monitoring Program," that intended to "inventory, assess, and monitor biophysical and sociological impacts resulting from recreational use of Canyonlands and Arches National Parks, and Natural Bridges National Monument . . . [to] assist NPS management in identifying problems in balancing recreation and resource protection." However, following through with such intentions remained elusive. As one June, 1985 Canyonlands Complex staff meeting recorded, "Most of the staff time has been spent just trying to keep up with the visitation." A memorandum circulated in 1985 specifically raised the concern that "carrying capacity of park areas is not known and could be exceeding acceptable levels."

During the ensuing period of growth, visitation increased from 290,519 in 1980 to 620,719 in 1990. Park managers in these years appear not to have implemented focused carrying capacity studies primarily for the reason of intense political pressure. Following energy market's crash in 1982, and the closure of the Atlas uranium mill in Moab in 1984, Grand County and the State of Utah cooperated aggressively with city of Moab, and higher levels of the NPS, to accelerate regional tourism. With Moab unemployment extremely high and a dominant mining industry that had sustained that community since the early 1950s apparently moribund, NPS proposals to study visitor impacts and plan for sustainable future use encountered extreme resistance from political and commercial entities rapidly expanding tourism promotion to serve as a new regional economic base.

Undoubtedly, a careful review of correspondence between State of Utah and NPS officials at institutions beyond the ones this study has been able to examine would uncover additional letters in which this pressure was clearly articulated. One example in SEUG archives is the letter Grand County Commissioners Jimmie Walker and William Hance wrote to Rocky Mountain Regional Director Lorraine Mintzmyer on November 20, 1985, protesting Arches' cancellation of a bicycle race permit along the main park road: "The Commission would like you to reconsider your decision, with our economy the way it is any forms of revenues which might

be brought to this community should not be turned down in our depressed times. . . We would like to see you encourage the use of our parks, especially ideas that will help depressed areas and the economy of local business." ⁸⁹

No systematic attempt to define carrying capacity, or to limit visitation to a level where it could be demonstrated to approximate an equilibrium with a publicly defensible definition of it, appears to have been attempted during the mid to late 1980s. Any management desire to put more effort into this would have been further hampered by the reality of "skeletal staffs and shrinking budgets," as Larry Thomas, Jeff Connor, and Kate Kitchell described their departments by 1986. By that year, resource management staff was reduced to begging park employees in other divisions for slivers of collateral time to help them with "data collection and other resource management projects whenever, wherever, and however possible." A dedicated effort to define and implement a carrying capacity program at this time does not appear to have been materially possible, even if the will to try it had existed. Lastly, it should be mentioned that from 1986 to 1988 the unwieldy structure of the Canyonlands Complex was reorganized into the South East Utah Group (SEUG). Professional vacancies were intentionally not filled until adequate performance reviews and position restructuring could be completed. 90

However, it is notable that the Arches General Management Plan process involved frequent discussions of the urgency of addressing exponential visitation in the near future. Innumerable documents from the mid to late 1980s demonstrate Arches' staff's growing awareness of the necessity for active visitor use planning. One initial draft of Arches GMP Issues, authored in 1986, provides a useful window into regional tourism's changing context:

Use and Development – general issues – Capacity and zoning for use.

The 1985 Statement for Management zoned Arches to show the existing management emphasis. However, the park has not been mapped area by area to indicate the capacity and types of visitor use and special needs for protecting the resources. Without this comprehensive graphic analysis in the GMP, it might not be clear how the land base of the park is to be both preserved and utilized for public enjoyment. The evaluation must be sensitive to the legislation and history of development and use of Arches, and will quantify/qualify visitor use in the several distinct geographic sections of the park.

During the past eight years since the approval of the Canyonlands GMP, certain conditions have changed. Moab has experienced a major economic crisis with the reduction of local industry. Highway 128 has been and continues to be improved, resulting in changes on the pattern of tourism in the area. The state of Utah has built a staffed visitor information facility on interstate 70, 3 miles east of Thompson. The NPS is presently upgrading Canyonlands access roads to Island in the Sky. Visitation to Arches

has steadily increased. These factors necessitate some reassessment of the proposal to enlarge the visitor center function at Arches. ⁹¹

It is also notable that, in these years, public concerns about possible over development at Arches were occasionally heard in the statewide press. Joseph M. Bauman's prediction, authored in 1987 for the *Deseret News*, appears to have been totally correct: "The more parking you install, the more people will come, the more crowded it will get and the more parking you'll need." Locally, the *Times-Independent* facilitated passionate exchanges between local residents. On March 23, 1989, a letter to the editor by David B. Williams lamented "a vicious cycle" he saw occurring at other national parks: "more roads, more people, more roads, more people... people just driving from place to place..." Williams asked his fellow Moabites directly, "Do we want this region to be a unique destination point or is Arches to become another national park tourist trap?" The tenor of public discussion regarding Arches' future in these years is partially preserved within the voluminous newspaper clipping records at SEUG archives. "

Despite such concerns, Arches and SEUG remained committed by their leaders to cooperating with state efforts to boost, rather than limit, increased visitation. As Squad's notes for May 2, 1988 record: "A press release was drafted on a "free" fee day, May 15, for Arches, Canyonlands and Natural Bridges, This will coincide with National Tourism Week and our continuing effort to support tourism in our areas. The press release will be finalized and sent out to a wide distribution from headquarters." On July 12, 1988, SEUG Superintendent Harvey Wickware wrote directly to Arches' Superintendent Paul Guraedy, discussing the status of an action goal, to "Become more involved with the communities' efforts to promote the tourist industry." As he noted, "Canyonlands Unit Manager is ex-officio member of local travel council. Park has worked cooperatively on various programs to promote the parks and surrounding areas. Employees belong to Chamber of Commerce, Rotary and Lions Clubs. News releases are issued on a regular basis." Notes from a squad meeting in December 1988 added, "Larry [Thomas] has been attending Grand County Travel Council meetings and has learned of the continuing emphasis on tourism promotion for the Canyonlands area. This means more business will be coining our way." "94"

Community and staff understandings of the dilemma facing Arches in these years can also be gleamed from a reading through the 134 pages of public comments received during the Arches General Management Plan process. ⁹⁵ This plan's 33 year-old date of publication should not prejudice park managers against its foresight. As NPS planners at a national level searched for appropriate units to pilot a carrying-capacity management framework, Arches' appeared to provide one of the most appropriate testing areas. As Arches' Chief of Interpretation Dianne Allen introduced in 1991,

Field work for the GMP was completed in 1988. The 1987 visitation was 468,916. The GMP projected visitation to be 716,000 in the year 2005. Without a change in counting

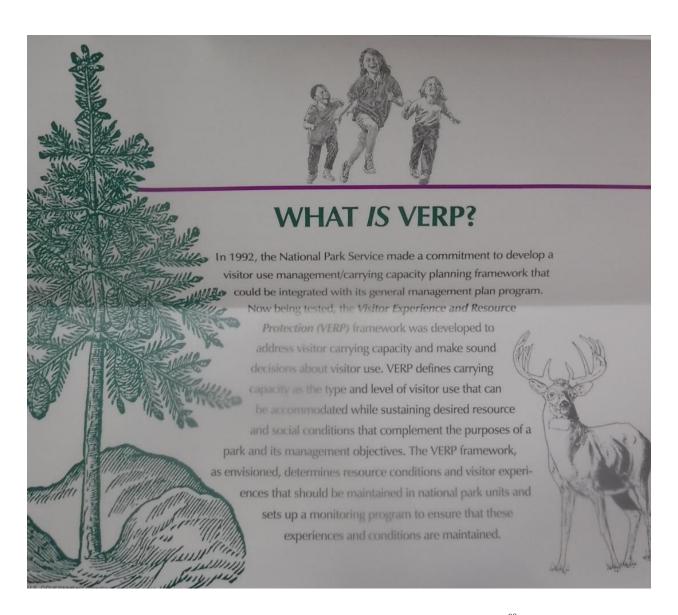
procedures, the 1990 visitation reached 620,719. With a modest 12% grown in 1991, visitation will go over 695,000. The increase in parking areas and other facilities proposed in the GMP is not sufficient to meet today's visitation, let alone that in 2005. The GMP stated that a Visitor Impact Management Plan (VIM) must be completed before development proceeds beyond what is recommended in the GMP.

VIM is a planning process wherein certain parameters are monitored for several years before decisions about managing visitor impacts are implemented. One of the three element addressed by the VIM program is visitor use; others are natural and cultural resources. The Outline of Planning Requirements states that it is necessary to start the VIM process in FY92. Arches has been targeted by to be the first parkwide comprehensive VIM Plan in the NPS. ⁹⁶

Visitor Experience and Resource Protection

"If this continues, we don't know what we're going to do. . . We're hoping that this trend doesn't continue. We're glad people love the arches, but that's more people than we'd know what to do with."

-Paul Guraedy, Arches Superintendent, March 10, 1990.97



Above: One of many VERP handouts created for public outreach.98

During Arches' (1989) General Management Plan development process, park planners' recognition of exponential visitation exceeding their predictions led the Southeast Utah Group (SEUG) to approve a Visitor Impact Management (VIM) program at Arches. This decision was made by March, 1990. This program went through a few acronym changes and became VERP: Visitor Experience and Resource Protection. VERP was supported on a national level by WASO as an effort to develop a replicable framework to bring the NPS into compliance with the 1978 National Parks and Recreation Act (P.L. 95-625).

A full narrative treatment of this program will be available in the forthcoming Administrative History. To assist SEUG staff interested in a more detailed understanding of this program, I have shared 113 pages of my typed notes on VERP documents with SEUG archivist Peekay Briggs who is able to forward them upon request. These notes are arranged chronologically, with citations, and allow anyone reading them to see for themselves many of this program's details and its general trajectory.

The best single collection of VERP records at SEUG archives is located in CANY 486, series 18. A finding guide explaining its contents is located here: https://www.nps.gov/cany/learn/historyculture/upload/CANY486.xml#series18

Additional VERP materials, including copies of its newsletter, are located in ARCH 101 Box 4 Folder 003-042 and ARCH 101, Box 8, Folder 005-103. Many additional materials relevant to VERP and transportation planning are located in a box as yet unassimilated into the principle SEUG archival collections. For reference I have referred to it here as "Miscellaneous Collections Box" as it is identifiable by the names of 13 collection numbers from an earlier processing system written on its side (ARCH 2044, ARCH 3483, ARCH 3483, ARCH 3489, ARCH 3505, ARCH 3519, ARCH 3520 (crossed out), ARCH 3827, ARCH 3900, ARCH 3901, ARCH 2910, ARCH 3929, ARCH 3930, and +ARCH 3903 (handwritten)."

It is worth noting that VERP programs were also piloted at the following additional parks during the 1990s: Mt. Rainer, Yellowstone, Grand Teton, Glacier, Acadia, Isle Royale. Currently, no updated administrative histories for these units exist which might shed comparative light on this program's success or failure elsewhere that it was attempted. In light of how significant of a planning challenge increased visitation currently is, it appears prudent for the NPS to prioritize completing updated administrative histories for those units. Conducting a comparative study of VERP's implementation at all these parks would also be an extremely relevant administrative history or dissertation level project.

What is included below is a basic timeline of VERP's progress at Arches, followed by a selection of choice quotations from VERP planners that demonstrate how they understood their program's progress over time.

Timeline of VERP

1990

August

Bob Manning of the University of Vermont, and a part-time WASO employee, first travels to Moab to assist with the organization of a visitation management planning team. ¹⁰⁰

November

Noel Poe EOD's as Arches' Superintendent on November 18th.

December

Lorraine Mintzmyer, director of the Rocky Mountain Region, negotiates for Walt Dabney as a replacement SEUG superintendent for Harvey Wickware.

1991

August

Walt Dabney arrives at SEUG and begins serving as its superintendent.

November

"The VUMP program has been funded by Region in fiscal year 1992. Arches is one of three parks chosen as pilot programs to determine how to manage visitor use. Noel will be going to Utah State University in Logan on Thursday to lead a seminar for graduate students on the VUMP and also teach about the NPS mission." ¹⁰¹

1992

February

DSC commits to funding two graduate student for a six-week period in the summer of 1992 to conduct observations on visitor use. ¹⁰²

April

Jayne Belnap and Craig [?] attend a USFS Limits of Acceptable Change training in Moab during the week of April 6, to study how that agency has developed a carrying capacity management framework.¹⁰³

May

An outline of planning requirements for Arches National Park recommended by Noel Poe on May 21, 1992 notes that: "The increase in parking areas and other facilities proposed in the GMP are not sufficient to meet today's visitation let alone that in 2005. The GMP states that a Visitor Impact Management Plan (VIM) must be completed before development proceeds beyond what is recommended in the GMP." At this time Poe anticipates VIM to be "a 2-year intensive process, that will establish direction for multi-year monitor and adjustments of management strategies." 104

June

VERP name decided upon.

Plans made for focus group sessions at the visitor center, the conclusion of Fiery Furnace walks, and the in the Devil's Garden Campground, "to identify park conditions and issues which are of concern to the target group and which add to or distract from the quality of the visitors' experience in the park." 105

VERP's team consists of the following individuals:

Diane Allen, Chief of Interpretation, Arches Karen McKinley-Jones, Resource Management Coordinator, Arches James W. Webster, Chief Ranger, Arches

Jayne Belnap, Research Biologist, SEUG Nancy Coulam, Archeologist, SEUG Larry Thomas, Chief of Resources Management, SEUG

John Austin, Denver Service Center, NPS Jim Hammett, Denver Service Center, NPS Jan Harris, Denver Service Center, NPS Marilyn Hof, Denver Service Center, NPS Gary Johnson, Denver Service Center, NPS Michael Rees, Denver Service Center, NPS Dave Lime, University of Minnesota Bob Manning, University of Vermont Rick McMonagle, Graduate Student, University of Minnesota Paul Nordin, Graduate Student, University of Minnesota¹⁰⁶

July

Marilyn Hof of the Denver Service Center identifies the political pressures commonly leading to managerial paralysis in the context of exponential visitation at NPS units. In her words:

Park Managers are often uncomfortable saying that their parks are receiving inappropriate or excessive use, and are reluctant to limit visitor use because they lack the supportive data and the rationale they need to make these controversial decisions.

Numerous groups are very interested in how the Park Service addresses, or avoids, the issue of visitor carrying capacity. Environmental groups are urging the Park Service to limit use in some parks. Many visitors are resistant to proposals that would restrict their use. Concessioners also have a keen financial interest in carrying capacity determinations. The lack of a systematic, rational, and well-documented process for addressing carrying capacity has left the Park Service vulnerable to criticism and lawsuits by these groups. The Park Service is now being threatened with a lawsuit over a proposal to increase the amount of lodging on the north rim of Grand Canyon because the proposal was not based on a formal determination of the park's carrying capacity.

The Park Service clearly needs a process that will help park planners and manages [sic] make hard decisions about visitor use.

NPS planners and consultants have developed a draft process that should address this need. The process interprets carrying capacity not so much as a prescription of numbers of people, but as a prescription of desired ecological and social conditions. Based on these conditions, the process identifies and documents the kinds and levels of use that are appropriate, as well as where and when such uses should occur. ¹⁰⁷

Summer

Ten focus group sessions are held and 112 visitors are interviewed. 108

December

Noel Poe travels to Salt Lake City on December 9th for a focus session "with the environmental

community" about the VERP process. 109

1993

January

At the Fourth Arches' VERP Team meeting, VERP planners consider the possibility of physically relocating a popular visitor experience from one park experiencing crowding to an adjacent park not yet experiencing crowding:

The NPS should strive to preserve a diversity of experiences for visitors at Arches, at the same time recognizing that Arches cannot provide all the experiences people desire and that other parks in the region may be better at providing a given experience (e.g., Canyonlands has an extensive backcountry area and may be better at providing this experience than Arches).

In the ensuing discussion, VERP planners decide against such a policy of visitor displacement and experience relocation. They reject this approach based on the following arguments:

However, allowing an ever increasing number of visitors and providing facilities for these visitors ultimately will reduce the diversity and quality of experiences the park offers, and displace visitors. The NPS needs to be an advocate for protecting park resources and providing opportunities for the minority of visitors who seek a different experience from the majority. Our mandate is <u>not</u> to provide a high quality experience for as many people as possible, like Disney. . . . The Arches GMP . . . does not appear to be flexible for changing use in the backcountry or primitive trails." ¹¹⁰

<u>February</u>

The Denver Service Center drafts articulations of the concept of carrying capacity:

The concept of carrying capacity is intended to safeguard the quality, not only of park resources, but also of people's park experiences. People come to national parks to enjoy their heritage of natural and cultural treasures. By helping visitors participate in the kinds and levels of use compatible with the long-term preservation of the qualities that make parks special places, we can ensure that people will find the parks to be inspirational, educational, and recreational places for many generations to come.

If carrying capacity is not applied aggressively, then the visitor experience is likely to change in unintended and, possibly, undesirable ways.

Carrying capacity is the type and level of visitor use that can be accommodated while sustaining the desired resource and social conditions that complement the purposes of the park units and their management objectives.¹¹¹

March

Noel Poe publically argues for a break with the tradition of chasing increased use with increased infrastructure:

I do not believe that national parks should always build more and more facilities in order to meet ever-increasing visitation. We need to determine if increasing visitor use is causing unacceptable impacts to park resources and the quality of visitor experiences in the park. If unacceptable impacts or experiences are occurring, we will need to make changes in how Arches National Park is managed, such as maintenance, education efforts; ranger patrols, size, placement or removal of facilities; levels of visitor use; and types of visitor activities permitted. 112

Visitor use studies reveal that "Crowding at major attraction sites such as the Windows and Devils Garden was a concern expressed by those interviewed . . . Most people liked the low level of development in the park." ¹¹³

<u>July</u>

Bob Manning and Dave Lime develop visitor surveys. They are to be conducted at Arches starting this month and into the fall. 114

August

A press release anticipates a quick completion date for VERP, the incorporation of its recommendations into Arches' GMP, and commits not to increase infrastructure development without a full EA/EIS process. The public is invited to attend a meeting at the Moab Community Center to hear more.

The specific language of the press release is:

"When completed sometime next year, the VERP program will become part of the park's General Management Plan (GMP), which was completed in 1989 . . . No significant deviation

from the GMP would occur without an Environmental Assessment or Environmental Impact Statement. For instance, no significant expansion of roads or campgrounds is planned."¹¹⁵

Arches zoning scheme is initiated with public input. Scientific data to measure visitor impacts within zones is decided to include "cryptobiotic soil crust condition, relative soil compaction levels, [and] the number of unofficial trails." The VERP team acknowledges "We have much less information about what are good indicators for measuring the quality of visitor experiences."

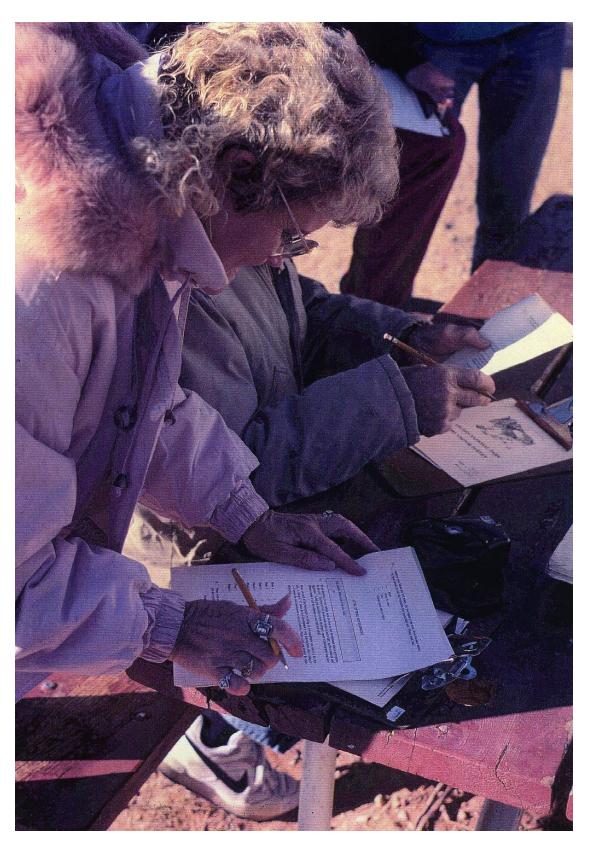
Summer to Fall

1,500 visitors are interviewed, onsite at Arches and via mailback questionaires. "Visitors responded to questions about their reasons for visiting Arches, opinions about management activities at the park, opinions and perceptions about crowding, and their ideas about standards for acceptable levels of use in different park areas." ¹¹⁷

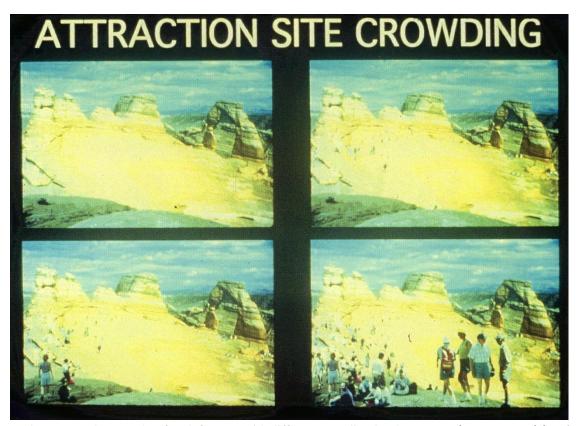
October

Fiery Furnace permit system planning begins. 118

Visitor Survey questions and data from the summer to fall is located at Arches 101, Box 4, Folder 003-0042.

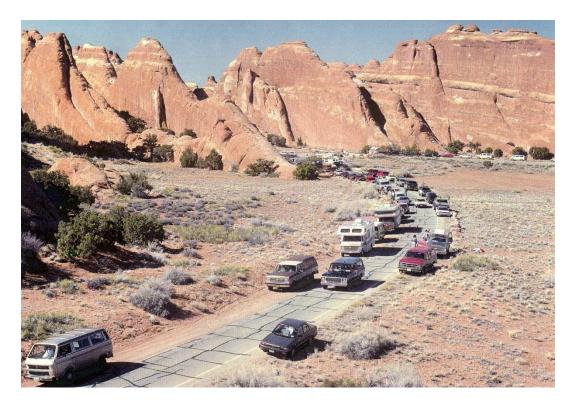


Visitors filling out a VERP general information survey, ca $1993.^{119}$

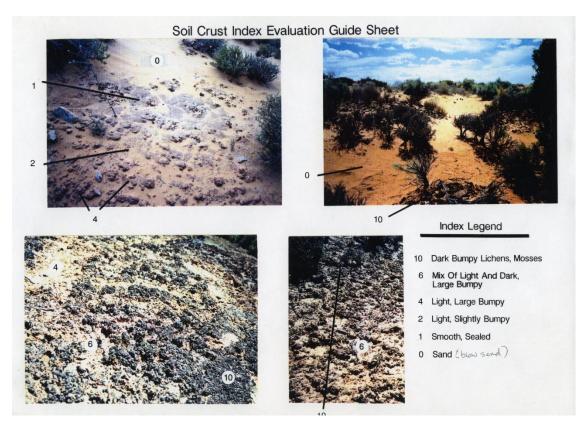


Under VERP, photographs of park features with different crowding levels were used to measure visitors' tolerances and preferences. (Above) ranges of crowding debated at Delicate Arch. (Below) Maximum crowding scenario image for Landscape Arch trail. ¹²⁰





(Above) Visitor-expanded informal parking in Devil's Garden, recommended for obliteration to prevent unacceptable levels of on-trail crowding, ca. 1992-1993. (Below) ecological indicators for carrying capacity at Arches considered measuring visitor trampling of biological soil crusts. ¹²¹



1994

<u>February</u>

Biological and sociological standard planning occurs. 122

At the Sixth Arches' VERP team Meeting, team members appear hesitant to define appropriate management actions once established thresholds are exceeded: "It appears that we cannot accurately predict what management actions would be required to ensure that we stay at or below our standard." ¹²³

One pessimistic view of VERP's outcome is articulated, which Jim Hammett of the Denver Service Center goes on record as strongly dissenting from. It is:

We are *not* establishing an indicator to preserve the opportunity for low-use experiences. Our chosen indicator only serves to limit above-standard congestion . . . to 10% of the peak hours. Resultant management actions, coupled with increasing use, will inevitably drive up use during the off-peak periods. We have identified no process for actively managing to maintain the quality opportunities . . . the opportunity for the experiences most cherished by visitors will decline. Low use hours, seasons, and attractions within any given zone will become rarer. The overall experience will deteriorate. ¹²⁴

Soil crust indicators for some zones are proposed. Monitoring difficulties are noted, particularly in the Primitive zone (Backcountry). Here it is decided that "The critical indicator for this zone is the absence of social trails." Based on input from interviewed backpackers, a social standard of a crowding threshold is set at 3 parties encountered per day. ¹²⁵

VERP team identifies a major question relative to the context of visitor displacement:

Standards can change with time as peoples' values and society changes. However, in the VERP project we are identifying standards for people now in Arches. . . As crowding-intolerant people are displaced over time and replaced with more crowding-tolerant people, visitor acceptance of crowding probably will change, which in turn will affect our standard. This poses a philosophical question for managers: to prevent displacement of a few, do we select a strict standard, which would reduce crowding, prevent large increases in use, and impact a lot of people? Or do we follow a more lax standard, increase crowding, and acknowledge that some people will be displaced? 126

VERP team identifies long term monitoring as a potential problem: "NPS budget constraints are a concern for monitoring . . . A lack of funding for monitoring will strangle the VERP process, limiting its effectiveness." 127

VERP team recognizes the importance of empowering superintendents to make their own decisions, "so long as he or she can provide a rationale for the decision and defend the choice:"

Even if a park has reams of data, some decisions in the process ultimately will come down to judgement calls based on the manger's intuition and experience . . . it is important to keep in mind that ultimately the decisions on visitor management come down to the call of the park superintendent. We are not managing the park by the vote of the public – although it is very important to listen to the visitors' opinions. The superintendent can chose to ignore the results of a visitor survey and select a different social standard, so long as he or she can provide a rationale for the decision and defend the choice. ¹²⁸

VERP team recognizes infrastructure use as easy to monitor.

VERP team notes a concern about increased visitation from proliferating tour bus companies.

VERP team anticipates a major problem of potentially using shuttle buses: "If at some time in the future the park institutes a shuttle system, we will be increasing pulses at our attractions and trails, which may dramatically affect the relationships we are now establishing." ¹²⁹

VERP team anticipates an overcrowding scenario that becomes a common occurrence from 2018-2021:

If use continues to increase as it has, the time will come when we are forced to close the gate to Arches. We can divert people to other areas that are not experiencing much use now, but sooner or later we will need to limit visitor numbers. Otherwise, we will be providing a relatively crowded, high density visitor experience through much of the park – our diversity of visitor opportunities will have disappeared. ¹³⁰

March

At the Seventh Arches VERP Team Meeting in Denver, Noel Poe notes that the public has accepted the Fiery Furnace reservation system with few or no complaints. ¹³¹

VERP Team decides on a maximum crowding standard for Delicate Arch of staying below 30 People At One Time (PAOT) for 90% of the time. It estimates that to facilitate this experience the Wolfe Ranch parking lot needs to be reduced from 79 spaces to 36 spaces, based on modeling. Team decides to reduce the standard based on a visitor expectation that Delicate Arch will be crowded as it is a major attraction, similar to Old Faithful.

The ensuing discussion notes:

Jim H. suggested, and the team agreed, that we modify the indicator and standard as Diane proposed in February: perhaps what is important at the arch is that people have an opportunity sometime during their stay to view the arch and take a photograph with fewer than 30 people present. If a visitor is willing to wait at the arch for 15 minutes, there is a reasonable change that he or she will see fewer than 30 PAOT. (This is not something Diane is going to tell people at the visitor center!).

Thus the standard is now: "For 90% of the 15-minute sampling periods there will be fewer than 30 people present at least momentarily."

15 min – roughly the average duration.

The reason we are changing the indicator and standard is because of the special nature of Delicate Arch. . . We will <u>not</u> do this for the other arches in the park – to do so would be to compromise VERP.

The team decided to drop the indicator for the trail to Delicate Arch. We are more concerned with the visitor's experience at the arch; the experience of walking up to the arch is of secondary importance.¹³²

VERP team identifies a proposed Devils Garden trail capacity standard to keep visitor experiences below encountering 20 PAOT for 90% of the time of their hike. 133

VERP team notes that approximately 80 parking spaces exist at Devils Garden, which is over the size authorized in the GMP. It is noted that in the summer of 1993, a maximum high point of 177 vehicles was counted in the parking lot area, "which would be far over the standard." ¹³⁴

VERP team notes a total of 64 parking spaces at the Windows Section (upper and lower), with a maximum of 168 cars observed at one time, and notes "More enforcement necessary against illegal parking to keep standard." ¹³⁵

While discussing the Klondike Bluffs area, the VERP team appears unsure how to relate to less visited areas of the park. They team does note that the road to this area is dirt, and that fact naturally limits use of it. However, they do discuss the possibility of using it as an an overflow area to which visitors from crowded areas can be directed:

It was pointed out we probably should increase use at Klondike Bluffs, which currently receives little use. We need to provide more places in the park for visitors to go when other parking lots are filled. And we do not have many places for middle experience between the primitive / backcountry and pedestrian zones, which the hike zone provides – the trail from Landscape to Double O and Park Avenue are the only hiker zone

experiences we are providing. There is a lot of demand for this middle experience. If we keep the standard low at Klondike Bluffs we are reducing the opportunity for this experience. Why not allow more visitors the opportunity to have this experience?¹³⁶

VERP team sets a road congestion Level of Service as "B," which at the time it understood as "reasonably free flow. LOS A speeds are maintained, maneuverability within the traffic stream is slightly restricted. The lowest average vehicle spacing is about 330 ft (100 m) or 16 car lengths. Motorists still have a high level of physical and psychological comfort." ¹³⁸

Regarding Primitive and Backcountry zone monitoring, VERP team notes "It was decided that it would not be feasible to monitor the soil crust and soil compaction indicators in these zones – finding a good location to track these indicators on a recurring basis would be difficult . . . The social trails indicator also should be as good a measure of the effect of visitors on these areas' resources." It is also noted that, despite multiple backcountry management plans calling for systematic backcountry impact monitoring, "The team did not have data to know how many miles of social trails are presently in the two zones."

The VERP Team recommended setting a draft standard and establishing photo points "for areas where there are concerns, such as Herdina Park." It also noted that "Game trails cannot be distinguished from social trails, and should therefore be counted." It suggested that an appropriate social trail indicator should be "the increase in linear feet of social trails," and set a standard as "No more than 10% in additional linear feet per square unit than what is present in 1995."

The nuances of soil crust and individual visitors' disproportionate impacts are also recognized: "At Arches it must be kept in mind that one person walking off a trail can do a lot of damage." ¹⁴⁰

Regarding the importance of setting firm standards, the VERP team appears to be intelligently using its comparative training from what the USFS learned in its Limits of Acceptable Change program: "It is important to nail down indicators and standards, as well as the key monitoring parameters in the VERP process. These elements are all highly interdependent and interrelated. If any of these elements are not nailed down, it would be possible for managers to manipulate the monitoring program to ensure that standards are not exceeded, or are exceeded more often than occurs in reality. . . LAC often fails because the standard has not been pinned down." ¹⁴¹

The Denver Service Team describes an undesired end, which is exactly what occurs on a weekly and eventually daily basis at Arches from 2018-2021:

Unlike Disneyland, it is <u>not</u> the mission of the NPS to maximize the number of people who visit a national park. This is a basic philosophical tenet of VERP. The intent of VERP is to protect the quality of the visitor experience, while also protecting the park's resources. If use continues to increase, sometime in the future we will exhaust our

repertory of management actions to redistribute use, educate visitors, and harden sites. When that point is reached, people will have to be turned away from a park if we are to continue to provide a quality visitor experience and protect park resources. Turning away people is not a desired end, but eventually we will be forced into this action if use continues to increase. 142

The VERP team acknowledges the inevitability of a reservation system: "The NPS is now looking at the feasibility of implementing a reservation system nationwide. Sooner or later we will be forced into a reservation system, at least for portions of parks – visitors will not have the freedom to go into a park anytime or anywhere they want. This could be the stimulus needed to implement VERP throughout the park system." ¹⁴³

Concluding its meeting, the VERP team puts its faith in limiting parking lot sizes:

Assuming the Delicate Arch and Devils Garden visitor use models work, we will not have to monitor visitor use very often. As soon as the parking lot is the right size and the park enforces where people park, we should be able to stay under our standard . . It appears that the parking lots for North Window and Landscape Arch are about the right sizes and should not be changed. This is amazing planning or incredible luck! Unfortunately, the Wolfe Ranch parking lot appears too large for even our revised indicator. . . There are other ways to control use at a site in addition to altering the size of a parking lot. For example, we could control use by permits, require visitors to pass tests, institute a special fee or toll. But all of these methods are labor intensive." 144

<u>April</u>

At the Seventh VERP Team Meeting . . .

Arches Chief Ranger Jim Webster notes "that visitor use is continuing to go through the roof. Year-to-date use is up 30% over last year's record place." In 1993 an average of seven buses a day entered he park. He expects it to increase to 15-23 per day by August 2005. 145

The soil crust and soil compaction monitoring indicators are definitively dropped from the primitive and backcountry zones. 146

It is decided to increase use and expand a parking lot Klondike Bluffs. 147

May

At a SEUG staff meeting, Jim Webster anticipates and recommends that:

VERP should be implemented by next spring. We should wrap up the process this fall

with indicators and standards. We are starting to lose players from the team. A public meeting will be held this summer to present how VERP will be applied and what implications there will be. A presentation was given on VERP at the Governor's Conference on Tourism last week. The Governor talked about the importance of the quality of the experience in Utah, not the quantity of people. He basically set the stage for the park's presentation on VERP. 148

June

Noel Poe describes the urgency of implementing VERP quickly in "A Note from the Superintendent" on the front page of Newsletter #4: "Park visitation is up 13% this year over last year's record breaking pace . . . I am convinced more than ever that we must come to grips with increasing use of the park if we are to achieve our dual mandate of conserving park resources unimpaired for future generations and providing opportunities for the public to enjoy these resources."¹⁴⁹

August

At the Eighth VERP Team meeting, management willingness to take decisive action appears to vacillate. Page one of the meeting's report notes, "Although we have more visitor use data on Arches than most parks, we still do not feel confident about taking action to limit use." ¹⁵⁰

Parking areas are described in the following way: "The Wolfe Ranch and Devils Garden parking lots currently accommodate far more cars than the GMP allows." However, "neither parking lot was ever filled to capacity." Wolfe Ranch has 62 striped spaces and 2 handicapped spaces "but was observed to have informal space for at least 116 cars... There were no signs, barriers or law enforcement actions to prevent cars from parking in these unofficial spaces." The Devil's Garden parking area has 30 striped spaces, informal space for approx. 275 vehicles (excluding 23 sites on the east side of the loop). ¹⁵¹

November

In Arches' Newsletter #5, Noel Poe directly communicates that "At this point in time I do not believe we have to limit use in order to protect resources at Arches." However, he does explain an initiative for next spring "to begin eliminating unauthorized spaces at the parking areas . . . in keeping with the intent of the park's general management plan . . . [to] reduce use in these areas so we are no longer exceeding our social standards." ¹⁵²

Also in Newsletter #5, the article "Proposed Management Actions to Address Increasing Visitor

Use" describes the VERP team's current outlook on parking lots:

Park managers and planners believe the first action that should be taken to return use levels to acceptable conditions is to reduce the areas available for parking. By controlling the size of the areas available for parking we should be able to control how much crowding occurs at the arches or on trails – with the proper sized parking areas we expect the social crowding standards for the arches or trails would not be violated.

As a result of this action some visitors may be unable to park at Wolfe Ranch on first arrival during peak use times in the summer months. It may be necessary to return to the area later in the day, plan a visit for early in the morning, or pass up the hike to Delicate Arch. If elimination of 'overflow' parking does not bring crowding at the arch into acceptable standards, additional management actions, including a reduction in the size of the park[ing] area, may be necessary.

Similarly, at Devils Garden the Park Service is proposing to reduce overflow parking. Available research data suggest that limiting parking to approximately 150 cars would keep the level of social crowding under the propose standards for both the trail to Landscape Arch and the trail continuing to Double O Arch . . . A 150-car parking area is a major increase over the existing 'legal' parking area size, but also reflects a 33% decrease in the overflow parking that has occurred at peak times. As with the Wolfe Ranch parking area, if monitoring shows that visitor use levels in the Devil's Garden area continue to exceed the social crowding standard, additional reductions in the area available for parking may be necessary.

The Park service is also proposing to limit parking at the upper Windows parking area to the current 35 striped spaces. At peak times as many as 40-50 cars have been recorded in the upper Windows parking area. By eliminating overflow parking we hope we can bring the level of social crowding back under the proposed standard.

As a result of the above actions some visitors coming to Arches at peak times will experience frustration and inconvenience trying to find a place to park. Visitor center staff will help visitors by suggesting less-crowded times to visit certain sites and by recommending alternative trails to walk and arches to see. We know visitation patterns will change in response to these adjustments, although we cannot accurately predict the nature of the changes or the extent to which they will occur. A season or two of monitoring will be needed to fully understand the implications of the changes in the parking areas.

The Park Service is not proposing to take new actions in these zones, as there is no indication now that conditions are out of standard. The existing permit system for

overnight use will continue to be administered as it has in the past. If future monitoring indicates that resource or social standards are being exceeded, the Park Service may look at taking other actions, such as establishing a permit system for day users, modifying overnight use permits (for example, reducing the numbers of permits issued, or limiting length of stay), or, if absolutely necessary, eliminating overnight use in these zones.

Although the VERP team has focused on management actions in certain park management zones, in the future the park's overall carrying capacity may need to be addressed. If visitor use levels continue to increase, eventually some people will not be able to find places to park at any of Arches' primary attractions. We cannot predict when this will happen until we understand more about how use patterns change in response to our zone-specific actions. But at the point when significant numbers of visitors cannot experience Arches' primary attractions, the park can be considered to have exceeded its overall carrying capacity. The Park Service would then have to look at taking further actions to manage use, such as instituting a reservation system or limiting numbers of parties entering the park. These types of actions would require further public review and input.¹⁵³

Regarding Backcountry use, Newsletter #5 predicated any future reductions or modifications of use upon NPS monitors' ability to prove the existence of accelerating impacts:

The Park Service is not proposing to take new actions in these zones, as there is no indication now that conditions are out of standard. The existing permit system for overnight use will continue to be administered as it has in the past. If future monitoring indicates that resource or social standards are being exceeded, the Park Service may look at taking other actions, such as establishing a permit system for day users, modifying overnight use permits (for example, reducing the numbers of permits issued, or limiting length of stay), or, if absolutely necessary, eliminating overnight use in these zones. ¹⁵⁴

This article finished with an acknowledgement of a reservation system's eventual inevitability:

If visitor use levels continue to increase, eventually some people will not be able to find places to park at any of Arches' primary attractions. We cannot predict when this will happen until we understand more about how use patterns change in response to our zone-specific actions. But at the point when significant numbers of visitors cannot experience Arches' primary attractions, the park can be considered to have exceeded its overall carrying capacity. The Park Service would then have to look at taking further actions to manage use, such as instituting a reservation system or limiting numbers of parties entering the park. These types of actions would require further public review and input. 155

Elsewhere in the newsletter, the VERP team clearly explains its currently identified indicators.

Regarding the social crowding, or "people perceived at one time at an attraction site or on a trail segment" indicator, it explained:

Visitor surveys in representative areas in this high-use zone indicated that photographs showing more than 20 people at one time at arches or on a trail segment were unacceptable to a majority of visitors. Based on this information, a standard of 20 people at one time was established for this zone in general. (Special circumstances at Delicate Arch and the Windows area resulted in somewhat different standards for those areas; see below). Because we know that occasional surges in visitation are unavoidable (such as from the arrival of a tour bus), management action would be taken if conditions exceed the standard in 10% or more of the samples collected during the monitoring period." 156

At Windows,

The same 20 people at one time standard would apply, but because of the high number of bus tours using the area, more brief surges in numbers of visitors are anticipated and need to be accommodated. In this area, management action would be taken if conditions exceed the standard in 20% or more of the samples collected during the monitoring period. 157

And at Delicate Arch, "Surveys . . . showed that the majority of visitors rated photos containing about 30 visitors as acceptable. The standard, then, requires management action if conditions exceed that represented by the acceptable photo in 10% or more of the samples collected during the monitoring period."

The VERP team's outlook at this time was also communicated to the *Times-Independent*. In a November 17 article, the purpose of monitoring was effectively communicated to and understood by the paper's journalist: "These indicators and proposed standards will serve as the park's 'early warning system,' alerting park management to problems resulting from increasing visitor numbers and triggering action to address those problems." ¹⁵⁸

<u>December</u>

At a SEUG staff meeting, Noel Poe reports that "Public meetings for the VERP process have been completed. We are waiting for comments on the mail out. Implementation of the plan will start in January." ¹⁵⁹

1995

March

Journalist Christopher Smith reports VERP's progress in the *High Country News* on March 6th. In it, Noel Poe explains monitoring thresholds, and is quoted as saying that "What this tells us is that if we see there's more than 30 people in the Delicate Arch area more than 10 percent of the time, we have reached our social capacity and we have to do something." He also communicated a commitment to increased parking enforcement: "We've lost control of the parking with people parking along roads and creating turnouts. We won't allow that anymore. If you're not in a designated space, you'll receive a ticket." ¹⁶⁰

May

Noel Poe and Marilyn Hof receive the Sheldon-Coleman Award "for their outstanding contributions to visitor services, namely the VERP process and visitor service carrying capacity standards. Noel will travel to Washington, DC, to receive the award on May 9th." John Reynolds from region calls SEUG during a squad meeting to congratulate them. ¹⁶¹

Reporting proudly on Poe's award, the *Times-Independent* optimistically predicts, "The VERP methodology is expected to take the NPS quickly into the future in the art of determining carrying capacities." ¹⁶²

June

The VERP Team releases a "VERP Implementation Plan," for Arches, 1995.

This document begins with an in depth discussion of the observed negative impacts of exponential visitation:

Visitors walking off of trails have severely trampled some areas, damaging fragile cryptobiotic soil crusts and alternating grass and shrub communities. Such trampling has changed the nutritional content of fescue and blackbrush, which in turn may be affecting wildlife populations in the park. Day hikers are inadvertently damaging Canyonlands biscuitroot (*Lomatium latilobum*), a rare plant occurring in the park's fin areas. Trampling is also affecting water infiltration rates, water retention capabilities, and invertebrate populations in soils; it is also increasing soil erosion.

Visitor use is affecting the park's cultural resources. Graffiti, looting, the displacement of artifacts, and littering are the primary impacts that have been monitored at cultural resource sites in Arches.

The quality and diversity of visitor experiences at many popular attractions in Arches have changed over the years. Traffic congestion and crowding are occurring more and more frequently, particularly at parking areas, trailheads, and popular arches. Noise from vehicles and visitors is often apparent in these areas. Increased use of the backcountry by day hikers has resulted in a loss of solitude at Fiery Furnace, the Devils Garden primitive loop, and Klondike Bluffs. During holiday weekends, long lines of cars queue up to enter the park in the mornings. The parking areas at Balanced Rock, the Wolfe Ranch/Delicate Arch trailhead, the Devils Garden trailhead, and the Windows parking area are filled to capacity on most summer days. Visitors then park their cars on road shoulders, which damages the vegetation and the shoulder soils.

The park's single campground is filled nightly from March through October. The visitor center also is often over-crowded during the spring, summer, and fall. As a result of all of these changes, an unknown number of visitors have either been displaced to other parts of the park or no longer visit Arches.

The park staff is devoting increased time and resources to addressing the problems resulting from the growing number of visitors. More of the park's limited funds are being devoted to law enforcement, traffic management, the installation of barriers, and the restoration of disturbed areas.

In short, increasing use at Arches is increasing congestion, cultural and natural resource impacts, and conflicts among visitors. The National Park Service is finding it increasingly difficult to meet its mission to allow visitors to enjoy the park and still conserve park resources in an unimpaired condition for future generations to appreciate. ¹⁶³

After reviewing pertinent history leading to the development of the VERP project, this document clarified management responsibilities in the foreseeable near future as indicator standards are exceeded:

Standards are quantitative or highly specific measures that provide a base for judging if conditions are acceptable. It is important to note that standards do <u>not</u> represent desired conditions or goals for an area but rather are triggers for management actions (i.e., the points where conditions become unacceptable). . . When standards are reached, managers must take action to get an indicator back within its defined standard. A variety of management actions, such as altering visitor use patterns and infrastructure (e.g., roads, parking areas, trails), may be taken in each zone to rectify discrepancies with exceeded standards. ¹⁶⁴

The implementation plan firmly rejected past practices of following increased visitation with expanded infrastructure construction: "The VERP program and this Arches VERP plan are not driven by the capacity of existing infrastructure. Building new facilities does not necessarily solve the problems resulting from increasing use. Rather than infrastructure, the VERP program is driven primarily by desired resource and visitor experience conditions." ¹⁶⁵

The plan's body pages summarize indicator standards. On page 46, it begins its discussion of management actions to address increasing visitor use. Regarding the Pedestrian Zone (main park features), it re-iterated the importance of limiting parking lot sizes:

Park managers and planners believe the first action that should be taken to return use levels to acceptable conditions is to reduce the areas available for parking. Controlling the size of the areas available for parking should control how much crowding occurs [at the arches or on trails]. With the proper size parking areas, the social crowding standards for the arches or trails should not be violated . . . [at Wolfe Ranch] Parking will be limited to the 75 striped parking spaces currently provided . . . at Devils Garden . . . Parking will be limited to about 150 cars . . . As with Wolfe Ranch parking area, if monitoring shows that visitor use levels in the Devils Garden area continue to reach or exceed the social crowding standard, additional reductions in the areas available for parking may be necessary. . . [at Windows] The Park Service will also be limiting parking at the upper Windows parking area to the current striped spaces. At peak times, 40-50 cars have been recorded in the upper Windows parking area. By eliminating overflow parking it is hoped that the level of social crowding will be brought back under the standard. 166

Regarding the Hiker, Backcountry, and Primitive Zones, the VERP team recognized no standards that were being exceeded and did not recommend any action being taken at the present time. On page 49, the management action discussion concluded: "When significant numbers of visitors cannot park to experience Arches' primary attractions, the park can be considered to have exceeded its overall carrying capacity. The Park Service would then have to look at taking further actions to manage use, such as limiting numbers of parties entering the park. These types of actions would require further public review and input." ¹⁶⁷

The implementation plan also noted the value of monitoring "in determining what management actions to take to ensure that standards are not exceeded," and pledged that "Beginning in spring 1995 the park staff will begin monitoring the resource and social indicators during the peak use season. This will be an ongoing, permanent activity. Every year the park staff will prepare a monitoring report, which will document current conditions, note where standards are being exceeded, and identify what actions are being proposed to get back under the standards." ¹⁶⁸

The VERP implementation plan concludes with a summary of the public input process. After describing the interview process, it noted that "Overall, public response to the VERP project and plan for Arches was positive. Most meeting participants and newsletter respondents expressed recognition that the park must find a way to manage and control dramatically increasing visitation . . .There was some variation in acceptance of social standards. Although most people agreed that the proposed standards were acceptable, some believed that the standards should be either more or less restrictive. Few comments were received that indicated opposition to the process or the resulting plan." ¹⁶⁹

July

Journalist Todd Wilkinson writes a major, in depth report on crowding in NPS units for *National Parks* magazine, interviewing several VERP team leaders. His tone is optimistic: "There may be hope in sight . . . a quiet revolution has begun to change the way decision makers nationwide approach the conundrum of overcrowding." ¹⁷⁰

In this article, Marilyn Hof re-iterates her understanding of VERP as a management-action-triggering process: "When we hit the point where thresholds are surpassed, management is required to take action to come back into compliance. That could mean any number of things, from implementing a backcountry permit system to shrinking a parking lot so that the number of people visiting a site is limited. Or it might mean allowing only so many people to enter a park at any one time."

Terri Martin, director of NPCA's Rocky Mountain region, adds "The old way of doing business was simply to expand the infrastructure to accommodate even more people when conditions started getting crowded, which only exacerbated the aesthetic, biological, and social problems."

Notably, Marilyn Hof and Noel Poe both described VERP as a legally defensible program. As Hof described, "In the past, whenever we were taken to task for some kind of decision about visitor use – whether it was to increase it or control it – we were faulted [because] we didn't have a process that we could defend. Now we do." To this Poe added, "Often, park managers didn't have firm ground to stand on. If ever we were called to court, the first thing they attack is the process by which you arrived at your conclusions. If you're on the witness stand and testify that your actions were based on a gut feeling that allowing 30 people at Delicate Arch is appropriate, you'd get crucified."

Jayne Belnap, however, noted one potentially significant long term problem: While management action depended on the will of individual superintendents, the NPS' professional culture encouraged high levels of transiency. Over the long term, this made decision making vulnerable to the subjective influence of shifting baselines. As Wilkinson summarized, "Belnap says part of the problem is the transitory way that park management operates. Superintendents generally do

not stay at a given park longer than a couple of years, and each one comes in vowing to draw a line in the sand." In her own words Belnap added, "What they don't realize is that the superintendent before them did the same thing, and each successive manager allows the infrastructure to expand a little more. Within the short span of a single superintendent's tenure, the growth may appear small and acceptable, but if you weigh the long-term cumulative impacts and consequences of each new superintendent drawing a new shifting line in the sand, the resource loses out."

Concluding, the article noted that "The real test of VERP's strength will come when parking lots fill up, gridlock ensues, and politicians begin demanding that the asphalt trucks be brought out again."

September

After polling visitors in the field that summer at Arches, VERP employees Amy Smith and Linda Whitham communicated their findings and familiar observation to Noel Poe: "Visitors found it fascinating that we were measuring impacts resulting from increased visitation. No one person felt that they were a part of the impact problem, however they did admit that the park had experienced the effects of overcrowding." ¹⁷¹

December

Noel Poe attends his last formal VERP meetings in Denver. He prepares to leave Arches National Park to accept a position at Theodore Roosevelt National Park.

1996

January

The SEUG Staff Meeting Minutes for January 17, 1996 record the following conversations regarding budgeting:

When Walt arrived here, the decision was made to eliminate the Assistant Superintendent for the SEUG which saved us \$60,000 per year. Since then, we have used this money for other projects for which there was no funding. We also eliminated an assistant chief of maintenance which the money has gone back to the maintenance operation.

The group function is something that if you had to duplicate the shared functions in each park we would duplicate efforts and money. The problem has been that we have been

delegated all sorts of responsibilities and no money to support the additional responsibilities. The Canyonlands budget has eaten the excess costs of the group responsibilities. We are almost independent of other offices such as the Field and Washington levels. This has cost money but is to our benefit to stand alone. We have not assessed the satellite parks for road material, administration services, etc. The group has profited to some extent because we have in fact picked Canyonlands' bones for funding so other parks have benefitted.

Gail said Arches is in a position of cutting seasonal staff and will make a decision about whether to close the campground on Friday. This will only cut the workload but will not give Arches any extra money.

We would like to now look at operational changes rather than employee cutbacks so everyone must step forward with suggestions. More minds are better than one and we have a lot of creative people.¹⁷²

February

An additional window into SEUG budgeting woes is provided by the notes from an Employee Round Table Discussion that took place on February 2, 1996:

There was overall concern for the budget situation, or lack thereof . . . All divisions expressed concern for visitors exceeding the speed limit in the campground. The group realized that visitor protection no longer had adequate time for campground patrol due to other duties and limited staff, and that maintenance employees were placed in an unfair position of trying to enforce the law during their routine maintenance duties. ¹⁷³

Additional detailed concerns of management struggles to fund basic operations occur throughout SEUG staff and squad meeting minutes during the 1990s. Increasingly, SEUG pursues corporate grants to supplement inadequate budgets:

In February 1996, NIKE awards a \$100,000 grant to Canyonlands Field Institute and the NPS to expand an outdoor education partnership. Walt Dabney is quoted in an NPS-issued press release: "We're excited to see corporate America become a new source of funding for educational programs within the public parks. With NIKE's help, we will be able to move forward with our program for the 1996-97 school year."

In May 1997, an NPS press release thanks Canon U.S.A. for a \$25,000 grant to conduct aerial and ground censuses of Bighorn Sheep herds. The grant is part of a Canon U.S.A. initiative called "Expedition Into the Parks," in which \$1,000,000 in annual support funded high priority conservation programs throughout the NPS system.

In October 1997, SEUG applied to American Airlines for a \$28,000 grant to pay for one-third of the cost of a formalized Windows trail system. This request was granted, and construction proceeded in early 1998.

In February 2001, a grant from Exxon funded new teachers' guides for SEUG's Canyonlands Country Outdoor Education (CCOE) program. ¹⁷⁴

April

SEUG Squad meeting minutes suggest a sense that VERP is nearly a finished project. The notes for April 8th reported, "Staff at Arches spent a week in Denver discussing VERP and what we will do this year. It was productive as far as tying up lose ends and as far as VERP being a project for the NPS."¹⁷⁵

Monitoring data, now collated from the previous summer, suggests that VERP's most difficult test, decision making and visitation reduction, may be imminent. A progress report, "Implementing the VERP Program at Arches," dated April 19, 1996 noted that "Based on monitoring data collected in the summer of 1995, the park was out of standard for all of the resource and social indicators at Delicate Arch, Windows, and Devils Garden." ¹⁷⁶

The report notes an apparent effort to revise indicator standards: "The indicators and standards in the document needed to be tested to evaluate how they are working. . . Questions also have arisen . . . regarding such topics as monitoring, the success of zoning, and the park's overall capacity." Plans are noted to begin testing some proposed changes to VERP indicators, standards, and monitoring methods beginning in the summer of 1996.

It is, in retrospect, unclear whether the modifications to VERP standards considered at this time refined and assisted the program to any necessary degree. Questions the VERP team revisited at this time included whether "visitor perceptions of people at one time (PAOT) or 'real' visitor numbers should be monitored;" "Is there a relationship between visitor perceptions and 'real' numbers for the social crowding indicators?", and should use be "monitored during peak use times . . . [or] on visitor surveys conducted between about 8 AM and 7 PM?"

Here, the lack of a well-defined end point for VERP may have allowed a scenario of scope-creep to emerge. It is possible that such methodological questions could have been more appropriately explored by research institution acting independently. However, while VERP's last years record management frustration with monitoring's expense, VERP team members at this time appear to anticipate that long term monitoring costs will be minimal:

The experience at Arches demonstrates that determining priorities and assessing the park

staff's ability to do monitoring are important tasks in planning and implementing a VERP program. A high level of commitment is required to develop and carry out VERP monitoring, especially in the early stages. But it is also reasonable to expect that labor commitments will go down as monitoring techniques are refined. ¹⁷⁸

Regardless, the April 19, 1996 VERP implementation report does defend the impending necessity of firm management action. Regardless of fine tuning to monitoring standards, it notes that "based on monitoring over the past year it is likely that all of the primary attractions are exceeding standards or are close to exceeding them. If use continues to grow as expected, in the next couple of years visitors may not be able to find places to park at any of the primary attractions during peak use times. In addition, if and when use is controlled, visitors will travel to other sites, aggravating crowding there." ¹⁷⁹

This report re-affirms the necessity of decisive management action: "Park managers should not expect that everything can be solved through visitor education and infrastructure changes. . . A park may have to enforce regulations, using its authorities in 36 *Code of Federal Regulations*, if it is to successfully limit visitor use impacts." However, the report also notes the following concern:

The Park Service cannot currently predict how visitors will react to management actions that are taken to bring a park back within its social and resource standards. Visitor acceptance of crowding may change if management actions impact their use of the area. For example, visitor use may be reduced or restricted at an attraction to bring conditions back within standard. But visitors and others may object to this action and seek ways around it if they do not understand why the action is being taken." ¹⁸¹

That decisive management may have been able to navigate that scenario is suggested by the continued demonstration of widespread visitor support for carrying capacity management:

Finally, it was observed by the park staff that visitors had a high level of interest in the program. The majority of the people interviewed were supportive of the project and were interested in maintaining a quality experience. There were very few refusals (approximately 1%) to participate in the monitoring effort. In fact, many visitors would wait 2 to 3 minutes to participate in the interviews. Visitors were observed studying the VERP interpretive exhibit installed in the visitor center and would occasionally ask the ranger behind the information desk for more information on VERP. ¹⁸²

Also in this month, Steve Chaney is noted to be the Acting Superintendent of Arches National Park.

June

Bruce Rodgers, Chief of Resource Management at SEUG, summarized a status update for VERP:

To meet Public Law, 95-625 requirements for addressing visitor carrying capacity in park planning, the VERP process was developed at Arches. . . The 3-year effort, funded by DSC, was intended as a service wide model, and included extensive public participation and park staff involvement. . . Social and biological indicators and preliminary use levels were established for major park attractions. However, all previous effort and expense will be futile if the critical step of implementation is not taken.

VIM was supposed to identify key indicators and standards for analyzing the impacts of visitors, compare these standards with existing field conditions, and determine appropriate management strategies to deal with the probable causes of the impacts.

Not only is implementation of the program six years overdue, but the condition of the resources continues to deteriorate in primary visitor use areas . . . The necessity for such a system is especially urgent due to the rapid increase in visitation at Arches (from 363,000 in 1985 to 859,000 in 1995), and the documented increase in adverse impacts on natural and cultural resources as well as the quality of visitor experience. This translates to continued proliferation of social trails, destruction of native vegetation and soil crusts, increased erosion, gridlock at parking areas and crowding on popular trails. Mitigation of resource degradation is already beyond the capability of the park staff and budget.

In 1992, the NPS made a commitment to develop a visitor use management/carrying capacity process that could be integrated with its general management plan program. Incorporating the concepts of the VIM program and the Forest Service's Limits of Acceptable Change (LAC), the NPS developed its own process to help NPS planners and managers address visitor carrying capacity and make sound decisions about visitor use.

After providing a useful, condensed VERP history, Rogers' document notes that

In March, 1996, members of the NPS VERP team met to assess the VERP program at Arches after the pilot year of implementation . . . A number of adjustments in standards, indicators, and monitoring protocols were agreed upon . . . However, it also became evident that progress toward maintaining standards, and very likely the ultimate success or failure of the 3-year VERP planning effort, lay [in] the park's ability to take the management actions necessary to regulate visitor use and the associated impacts. ¹⁸³

While this document notes that VERP and Arches staff enthusiastically, "made a strong commitment . . . to assume the long term management and monitoring responsibilities," it appears extremely clear that decision making and visitation reduction efforts, not further monitoring, is what was necessary at this time. This document noted a glaringly obvious concern that, without decisive management action, "the VERP process becomes just another pilot project that failed due to lack of field level resources and ownership," and it correctly predicted that "VERP will have little potential as a management tool for meeting P.L. 95-625 mandates if it cannot be shown to be practical, affordable, and effective at the field level." 184

Regarding funding, Rogers noted that, to date, the VERP framework of implementing visitor use and carrying capacity limits has been funded to an amount of \$147,000. It has a still unfunded remaining implementation budget of \$335,000.

July

Presenting at a workshop organized by the Science and Research Division and Visitor Services Division of the Department of Conservation, Wellington, New Zealand, Noel Poe shared his experience with VERP. His talk specifically addressed the question of indicator standard modification, and described a scenario through which VERP could be undermined by a hostile administrator:

I think you'll see standards shifting but it is not something that you should do willy-nilly. The evil manager should not be able to change the standards just because he can't meet them and wants to avoid making a tough decision. When you change a standard you'd better be prepared to go back to the public and explain to them why you're doing it, and what you're doing. 185

August

The minutes for SEUG's staff meeting of August 21, 1996 record that SEUG personnel are attending trainings about how to solicit corporate donations: "Christine and Phil attended the presentation at BYU to receive the \$55,000 from NIKE for outdoor education." ¹⁸⁶

1997

April

The Southeast Utah Group Squad meeting minutes for April 29, 1997 records the

following conversation:

Walt [Dabney] said we have a lot of money for trails on our Fee Demo Program list of projects. Walt asked how VERP money will fit with the trail rehabilitation we have identified. Bruce said there is a total of \$260,000 available for infrastructure needs from VERP over the next three years which we must tie back to the VERP process. VERP money must be spent on areas included in the original VERP study and areas where we have and will limit use and have pushed use to other areas. Jim said we need to plan out what we are going to do with the NRPP money targeted for VERP. He believes we will be able to take care of problem areas now readily identifiable with VERP money and utilize the Fee Demo money later when problems are created from diverting visitor patterns from heavy use areas to and inundating lighter use areas. We will need to take care of the dispersed damage not identifiable as yet at a later date. 187

May

As informal parking areas adjacent to parking lots are obliterated at Arches, the question of how to respond to increasing numbers of arriving visitors for whom no parking spaces exist appears increasingly acute. As SEUG squad meeting minutes for May 29, 1997 record:

As we tighten down on our parking areas, people are being displaced and the effects are felt elsewhere. We hope to have people working with VERP to tighten the social standards. The curbing and barriers installed are doing a good job. Vehicles are restricted to the parking lots which is now denying visitors the opportunity to see things as they get to the lot, the lot is full, and they go on to the next site. We are displacing vehicles and we need to get ahead of the curve and determine how we handle the displacing. Jim said we have to have a plan in place because we now have no way to not allow people in to the park because the capacity is reached. ¹⁸⁸

While the VERP team on multiple occasions acknowledged the necessity of implementing a reservation type system when this scenario develops, no leadership appears present at this time willing to shoulder that responsibility. On the contrary, at least one squad member demonstrates a tendency to evade this responsibility in favor of a technological fix that might solve parking congestion while continuing to allow exponential visitation: "Phil asked whether anyone has looked into a shuttle system that could be based at the motels. Jim said a shuttle system had been discussed. The Atlas site has been talked about as a parking lot and a good place to start a shuttle system." ¹⁸⁹

In the ensuing conversation squad's faith in the defensibility of the VERP process is evident in the following statement: "Indicators and standards for natural resource impacts and the social experience were developed through the VERP process. The line has been drawn for a social

carrying capacity and the public has had plenty of opportunity to comment and has bought the capacity level." ¹⁹⁰

<u>June</u>

The VERP social science team meets June 18 through 25 "to look at monitoring techniques and brainstorming to refine the social science monitoring." The team is present at the June 24th, 1997 squad meeting. Dave Lime appears focused on improving the 1992 and 1993 questionnaires to better define indicators and standards. ¹⁹²

The minutes of the SEUG squad meeting for June 24, 1997 record the following VERP updates:

Visitor use patterns were surveyed for a whole year and data gathered and then a management plan developed of indicators and standards. It was realized there was a lot more to do so we put in a request for the NRPP funding. We received \$335,000 NRPP money for the project funded over the next three years as VERP . . . We need to figure out now if and when we can do a park-wide carrying capacity.

VERP team member Dave Lime of the University of Minnesota is highly interested in continuing the refinement of indicators, standards, and measurement techniques. ¹⁹³

At this time 100 NPS units are using the Fee Demo program. In October SEUG will report that it has collected "about \$800,000" via fee collection over the preceding fiscal year. 194

<u>July</u>

Karen [?] and Carey Holyoak (a graduate student) "both spent a tremendous amount of time on the data collection." ¹⁹⁵

<u>August</u>

Emergency hire authority is used to secure additional help for more social science data collection. The VERP team is attempting to define a standard of park-wide carrying capacity:

They have been doing parking lot counts from 7 a.m. to 10 p.m. on the hour; performing interviews of visitors; trying to figure out the correlation between the number of people at Delicate Arch versus the numbers in the parking lot and on the trail; performing exit surveys to determine number of cars coming into the park versus cars on the road and in the parking lots to figure out a formula to determine when the park is full. ¹⁹⁶

September

The VERP team releases a lengthy document, "VERP: A Summary of the Visitor Experience and Resource Protection (VERP) Framework." It reiterates, once again, that, if "monitoring data show[s]that resource or social conditions are out of standard, i.e., conditions are unacceptable... management action may be taken that restricts or modifies recreational use to the degree necessary to restore and maintain acceptable conditions." Possible management strategies, including implementing a reservation system, are explicitly discussed. 197

October

Arches National Park's 1998-2002 Strategic Plan and Annual Performance Plan anticipates that "By the end of the 5 year period, it is expected that visitation may exceed 1 million visitors per year, with tremendous potential for detrimental impacts on resources and experiences unless proactive monitoring and management activities take place." This report also notes the context of accelerating regional conversion to a tourism-based economy:

Visitation more than doubled in 10 years, from 419,000 in 1986 to 865,000 in 1996. Pressure from state and local private sector businesses for increased access, permits, concessions and business operations continue. Delicate Arch, located within the park, is on the state's license plate, and is an icon for many businesses and state and local agencies. Conversion of rural economies (primarily ranching) to those that are recreation-based has increased wear and tear on soils, vegetation and wildlife.

In addition, these external threats are present: (1) oil drilling operations adjacent to park boundaries could affect the scenic vistas that currently exist. (2) aircraft over flights, especially scheduled air tours, can disrupt the natural sound of the park environment. (3) increased commercial and private growth and development outside the park (City of Moab is 5 miles from the park's entrance) will continue to impact park resources (recreational activities, night lighting, criminal activity, crowding and congestion, etc.)."

1998

April

The minutes of a SEUG staff meeting for April 15, 1998 describe expansion of the Windows trail system. The language in which this expansion is described convey the persistence of a

management disposition to follow increased use with increased infrastructure. Trail formalization is seen as an effective way to reduce social trailing and soil crust destruction. However, management acceptance of accelerating visitor use of this area appears evident in the following statement "We were going to go with a 10-foot wide trail from the parking lot: There are concerns we are under-designing for future needs. We have tried to do 10 feet wide except where limited and dictated by the landscape." 200

June

Arches' VERP team reports its preparations for an aggressive summer schedule for social monitoring at Arches.²⁰¹

Summer

VERP's December 2000 Final Report notes, "FY 1998 work included a continuation of the social science research initiated in FY 97, but also saw greatly expanded project activity due to the significant increase in funds available for that year. Work focused on trail rebuilding and other infrastructure changes necessary to implement VERP recommendations, and a substantial portion of the funding supported the gathering of baseline information essential to planning additional major infrastructure modifications. With the advent of infrastructure funding available through the Fee Demonstration Program, there was a shift in emphasis from construction to planning and design." ²⁰²

1999

March

During a discussion of using VERP funding to complete a roadside social turnout analysis, Squad minutes note "We may want to also look at widening the road at Arches with this whole process," using Federal Highways funding.²⁰³

July

Squad meeting minutes for July 21 note "On October 13th and 14th, we will have a workshop at Headquarters concerning the VERP process at Arches. It will be a recap of the years of study and a closeout of the project to determine what use we will make of the whole process." ²⁰⁴

Summer – Fall

VERP monitoring continues

2000

<u>January</u>

A traditional pattern of facility expansion following increased use appears to guide the redesign of visitor parking at Balanced Rock. Ideal visitor experience outcomes, social crowding indicators, and ecological thresholds were not specifically developed for this area under the VERP program.²⁰⁵

The VERP closeout workshop is scheduled for March 22nd and 23rd.

March - April

No squad meeting minutes in SEUG records appear between the weeks of March 21st and April 25th.

From March 22-23, a closeout workshop for VERP is held. The agenda's title for the 1:00pm to 3:30pm session indicates pessimism, ennui, and a lack of direction: "**Where do we go from here?** Open forum with moderator. – Implications for park management (...will we do something or has all of this been a waste of time and money?)"²⁰⁶

A partial record of notes from these meetings does exist. Significant statements assessing VERP's overall effectiveness include:

- Noel noted that a big mistake with Arches that they never got Maintenance involved from beginning; so when started to implement VERP turned to maintenance, there was resistance to work. Need all divisions participating to some level in the process.
- The leadership of the superintendent was critical in the VERP framework, helped move the process forward.
- Noel noted that the work done at Fiery Furnace was important because people were
 getting frustrated with the long time it was taking to do VERP; the changes made at Fiery
 Furnace (instituting a reservation system, requiring permits for others, fencing the area,
 etc.) let the park staff see results on the ground, see that VERP was making a difference.

- Karen [McKinlay-Jones, Resources, Arches NP] noted that visitation increased 60% between 1991-1999 and the number of social pull-outs along roads increased from 89 in 1995; to 174 in 1999. At Delicate Arch there are now occasionally over 108 people at the arch; which was the high end of the spectrum of computer generated photos the future is here!
- Jayne noted that resource indicators need be ecologically meaningful and tie back to the ecosystem to be legally defensible.
- VERP is expensive
- Jayne stressed that just trying to set a number as the carrying capacity is not legally defensible and is the wrong direction to take; the focus should be on monitoring resource and social conditions; may set numbers but have to see what happens and change those numbers with new data.
- In retrospect, Karen noted that it was easy to focus on the computer photographs and think that was VERP the photos were only a tool, but they became synonymous with VERP. People lost sight of what else VERP does.
- Park is still grappling with overall park carrying capacity.
- Soil crust condition is poor at all sites monitored.
- Charlie concluded that keeping people on existing trails is paramount; fight social trailing with a vengeance; education VIP, rake social trails; consider building shade structures along trail (one major cause of social trails, people seeking shade); possibly more bathrooms at trailhead and along trails (another cause of social trails).
- Where do we go from here? Continue monitoring, monitor more zones, evaluate indicators . . . organize a VERP committee to talk about what's going on, see where conditions deteriorating, and what actions to take.
- Keep people on trails; park warranted take aggressive action keep people on trails (aggressive education, may mean fences, barriers, presence of rangers).
- Arches represented a fundamental change in how the NPS addresses increase in visitation. Before if use increased the park simply tried to increase the infrastructure (more parking areas, wider roads, etc.). Now with Arches and VERP on visitor experiences and resource conditions were critical in deciding what actions to take;

infrastructure no longer drives the process. A lot of the key management decisions at Arches were to limit increases in infrastructure.

• [The] Judicial system wants [to] support NPS because supposed to have expertise to manage; as long as there is administrative record, document rational, traceable, and degree can be empirically supported even better; VERP provides good sound management, informed, but also defensible as well.

This meeting's minutes also notes that infrastructure changes made at Arches to support VERP goals included a hardened Windows trail system that has effectively reduced social trailing; and formalized parking, curbs, and fencing at Devil's Garden.

Regarding use limitations, the minutes noted that, in general, "people reacted negatively to getting [a] permit," however, "People say [they do] not want permits, but after in effect and see payoffs, people often support permits." The minutes also note that "Majority people saying some restrictions okay in order to see fewer people at arch; 15% people want high access, willing put up with high numbers [in] order to have access, they want to be there and numbers at arch not important to them . . ."

One discussion point specifically anticipated the Timed Entry program proposed in the 2010s and implemented in 2022: "[We] Can influence when vehicles coming into park and model results; can [we] regulate when people come into park [?] . . . are people willing [to] put up with regulations?"

The NPS' dependence upon the standards of national education and civic culture was noted by one participant: "Steve was surprised that it appears that many visitors don't see it as a NPS role to take management action; basic education problem."

Although visitation was continuing to rise, participants in this meeting appear to have felt VERP was a meaningful program likely to have a significant national impact: "Arches work will have payoff for NPS as a whole." ²⁰⁷

<u>December</u>

Bruce Rogers authors a seven page documented entitled "Arches National Park, Implementation of Visitor Use Carrying Capacity Limits: Final Report." In it the VERP closeout workshop of March 22-23rd is noted as having occurring, but only a concise discussion of team members' conclusions is present. No direct mention is made of the conclusions reached during the 1:00 to 3:30pm session on March 23rd. The document recognizes, but understates persisting management failure to take decisive action to limit use at VERP's agreed upon and publicly

supported use levels:

The staff at Arches National Park made a strong commitment to participate in the VERP process and to assume the long term management and monitoring responsibilities that are an integral part of VERP implementation. Without this commitment, and the resources to follow through on it, the VERP process becomes just another pilot project that failed due to lack of field level resources and ownership . . .

A number of adjustments in standards, indicators, and monitoring protocols were agreed upon. However, it also became evident that progress toward maintaining standards, and very likely the ultimate success or failure of the 3-year VERP planning effort, lay in the park's ability to take the management actions necessary to regulate visitor use and the associated impacts . . .

VERP will have little potential as a management tool for meeting P.L. 95-625 mandates if it cannot be shown to be practical, affordable, and effective at the field level. In order to accurately assess the viability of the VERP process as a management tool, the Arches VERP pilot project must be completed through the implementation phase.²⁰⁸

This document does include a financial accounting of VERP fund expenditures for the years 1997-2000, which correctly adds up to the \$335,000 figure noted as earmarked for VERP in 1997.²⁰⁹

FY 97: \$50,000 available funding

Research support through a Cooperative Agreement with University of Minnesota: \$13,275

Salary and field support for 'VERP technicians': \$19,700

Supplies and equip. (GS vehicle, traffic counters, etc.): \$5,200

Travel: \$4,325

Stipend for Principle Investigators: \$7,500

FY 98: \$180,000 in available funding

Research support through a Cooperative Agreement with University of Minnesota:

\$13,200

Salary and field support for VERP technicians: \$35,000

Stipend for Principle Investigators: \$7,500

Supplies, equp. (traffic counters, dataloggers, interactive computer terminal, etc.):

\$10,000.

Trail Construction: \$11,000.

Biological Monitoring (BRD): \$5,400

Baseline data for infrastructure planning and resource management (low altitude digitized aerial photography of major roads and trails): \$97,900.

FY 99: \$105,000 available funding

Research support through a Cooperative Agreement with University of Minnesota:

\$10,560

Salary and field support for VERP technicians: \$39,000

Stipend for Principle Investigators: \$7,500

Supplies, equipment: \$2,440

Contract for analysis of roadside social pullouts along park roads: \$45,500.

2001

January

Rock Smith EOD's as Arches National Park Superintendent for a two year period designed to facilitate strengthened inter-agency collaboration between the NPS and Utah State Parks.²¹⁰

Spring

VERP social science leader Bob Manning writes an optimistically titled article for the *Journal of Park and Recreation Administration*: "Programs That Work: Visitor Experience and Resource Protection: A Framework for Managing the Carrying Capacity of National Parks." ²¹¹

May

Arches' National Park completes a Long Range Interpretive Plan than, once again, commits to taking management action based on VERP thresholds: "The park service, through the VERP program, attempts to preserve desired resource conditions (soils, vegetation) and visitor experience (solitude, enjoyment) by identifying biological and social indicators. Standards are developed from the indicators; if standards are not met, actions are initiated to better manage visitors in an area." ²¹²

2002

October

Arches' Chief Ranger Jim Webster writes a memo to Arches National Park's Superintendent, Rock Smith. It is a response to a FOIA request on a VERP update made by Moab resident Bill Love.

Webster notes that management actions to halt visitation increases where thresholds are exceeded remains a lingering, and unacted upon, commitment: "The [VERP] Implementation Plan – Arches National Park discusses many things that 'the park' or park staff will or should do, in order to carry out portions of this Implementation Plan."

Webster notes that Backcountry social trail monitoring "has not been accomplished . . . except for along the Devils Garden Primitive Loop Trail from its beginning at Landscape Arch to Fin Canyon." Webster explicitly recognizes that "This does not accomplish the spirit and goal of establishing a baseline for the entire zone." Webster notes that in 1995 VERP team members expressed optimism that aerial photography could be conducted to create baseline data for social trails, but that funds for this project remained absent. ²¹³

2004

May

Rock Smith returns to Utah State Parks per the interagency agreement he was hired under. He is replaced as Arches Superintendent by Laura E. Joss.

2005

Arches' Superintendent's Annual Narrative Report for Fiscal Year 2005 notes:

Visitor Experience and Resource Protection (VERP) RMVP staff did not conduct VERP monitoring surveys at the Windows, Delicate Arch, or Devils Garden this year due to the lack of staff. A total of 56 monitoring surveys were conducted in the motorized rural zone (Salt Valley Road) as part of routine patrols through that area and -0 - were conducted

in the semi-primitive motorized zone (four-wheel drive road). None of the surveys conducted have been entered into a database due to the lack of staff." 214

Understanding VERP: Key Quotations

Quote 1

"I do not believe that national parks should always build more and more facilities in order to meet ever-increasing visitation. We need to determine if increasing visitor use is causing unacceptable impacts to park resources and the quality of visitor experiences in the park. If unacceptable impacts or experiences are occurring, we will need to make changes in how Arches National Park is managed, such as maintenance, education efforts; ranger patrols, size, placement or removal of facilities; levels of visitor use; and types of visitor activities permitted."

- Noel Poe, "Arches National Park, Newsletter #2" March 1993. 215

Quote 2

"The quality and diversity of visitor experiences at many popular attractions in Arches have changed over the years. Traffic congestion and crowding are occurring more and more frequently, particularly at parking areas, trailheads, and popular arches. Noise from vehicles and visitors is often apparent in these areas. Increased use of the backcountry by day hikers has resulted in a loss of solitude at Fiery Furnace, the Devils Garden primitive loop, and Klondike Bluffs. During holiday weekends, long lines of cars queue up to enter the park in the mornings. The arking areas . . . are filled to capacity on most summer days. Visitors then park their cars on road shoulders, which damages the vegetation and the shoulder soils."

"The park's single campground is filled nightly from March through October. The visitor center also is often overcrowded . . . As a result of all these changes, an unknown number of visitors have either been displaced to other parts of the park or no longer visit Arches."

Increased congestion, impacts, conflicts, "The National Park Service is finding it increasingly difficult to meet its mission to allow visitors to enjoy the park and still conserve park resources in an unimpaired condition for future generations to appreciate."

"The primary purpose of the Arches [VERP] plan and program is to safeguard both the quality of the visitor experiences and the resources at Arches National Park."

"When standards are reached, managers must take action to get an indicator back within its

defined standard. A variety of management actions, such as altering visitor use patterns and infrastructure (e.g., roads, parking areas, trails), may be taken in each zone to rectify discrepancies with exceeded standards."

"The VERP plan is not an amendment to the management plan but rather implements part of the management plan. . . Management plan directions can only be changed by amending the management plan."

-_The Arches Visitor Experience and Resource Protection Implementation Plan," undated, ca. 1993.²¹⁶

Quote 3

"Standards can change with time as peoples' values and society changes. However, in the VERP project we are identifying standards for people now in Arches. . . As crowding-intolerant people are displaced over time and replaced with more crowding-tolerant people, visitor acceptance of crowding probably will change, which in turn will affect our standard. This poses a philosophical question for managers: to prevent displacement of a few, do we select a strict standard, which would reduce crowding, prevent large increases in use, and impact a lot of people? Or do we follow a more lax standard, increase crowding, and acknowledge that some people will be displaced?" 31

"If use continues to increase as it has, the time will come when we are forced to close the gate to Arches. We can divert people to other areas that are not experiencing much use now, but sooner or later we will need to limit visitor numbers. Otherwise, we will be providing a relatively crowded, high density visitor experience through much of the park – our diversity of visitor opportunities will have disappeared." 38

- "Summary of the Sixth Arches VERP Team Meeting, February 14-18, 1994," March 22, 1994.

Quote 4

"If after a year of monitoring we discover we are way over standard, we will have to reduce the size of the parking lot."

"If the regional director or park fail to take action when standards are exceeded, then VERP is meaningless."

-"Summary of the Seventh Arches VERP Team Meeting, April 12-14, 1994," May 16, 1994.²¹⁸

"At this point in time I do not believe we have to limit use in order to protect resources at Arches . . . However, in popular areas like Delicate Arch, Devils Garden and the Windows I am concerned about the impact of increasing use on the visitor experience. One of the first steps we will be taking next spring is to begin eliminating unauthorized spaces at the parking areas. This action, which is in keeping with the intent of the park's general management plan, we hope will reduce use in these areas so we are no longer exceeding our social standards."

"Propose Management Actions to Address Increasing Visitor Use."

"Park managers and planners believe the first action that should be taken to return use levels to acceptable conditions is to reduce the areas available for parking. By controlling the size of the areas available for parking we should be able to control how much crowding occurs at the arches or on trails – with the proper sized parking areas we expect the social crowding standards for the arches or trails would not be violated."

"As a result of this action some visitors may be unable to park at Wolfe Ranch on first arrival during peak use times in the summer months. It may be necessary to return to the area later in the day, plan a visit for early in the morning, or pass up the hike to Delicate Arch. If elimination of 'overflow' parking does not bring crowding at the arch into acceptable standards, additional management actions, including a reduction in the size of the park area, may be necessary."

"Although the VERP team has focused on management actions in certain park management zones, in the future the park's overall carrying capacity may need to be addressed. If visitor use levels continue to increase, eventually some people will not be able to find places to park at any of Arches' primary attractions. We cannot predict when this will happen until we understand more about how use patterns change in response to our zone-specific actions. But at the point when significant numbers of visitors cannot experience Arches' primary attractions, the park can be considered to have exceeded its overall carrying capacity. The Park Service would then have to look at taking further actions to manage use, such as instituting a reservation system or limiting numbers of parties entering the park. These types of actions would require further public review and input."

-Noel Poe, "A Note from The Superintendent," in Arches National Park (VERP) Newsletter # 5 Nov 1994. 219

"These indicators and proposed standards will serve as the park's 'early warning system,' alerting park management to problems resulting from increasing visitor numbers and triggering action to address those problems."

-"NPS to unveil new 'visitor experience' plan at meeting on Arches National Park," *Times-Independent*, November 17, 1994. 220

Quote 7

GMP Legacy:

"The Park Service was required to prepare a VIM-type program when park use exceeded the management plan's visitation projections for the year 2005. (This event happened in 1991.) The VIM plan was to be initiated at least three years before the beginning of comprehensive design for any construction beyond that proposed in the *General Management Plan*."

"No expansion of roads, parking, and other facilities beyond the proposals in the *General Management Plan* was permitted until the VIM program determines that additional visitors could be accommodated without causing 'unacceptable deterioration of natural or cultural resources or visitor experiences.""

"The VERP program and this Arches VERP plan are not driven by the capacity of existing infrastructure. Building new facilities does not necessarily solve the problems resulting from increasing use. Rather than infrastructure, the VERP program is driven primarily by desired resource and visitor experience conditions."

Overall Park Capacity:

"Although the VERP team has focused on management actions in certain park management zones, in the future the park's overall carrying capacity may need to be addressed. If visitor use levels continue to increase, eventually some people will not be able to find places to park at any of Arches' primary attractions. It is not possible to predict when this will happen until more is known about how use patterns change in response to the zone-specific actions."

"But when significant numbers of visitors cannot park to experience Arches' primary attractions, the park can be considered to have exceeded its overall carrying capacity. The Park Service would then have to look at taking further actions to manage use, such as limiting numbers of parties entering the park. These types of actions would require further public review and input."

- VERP Implementation Plan, Arch, 1995. 221

"There may be hope in sight. . . a quiet revolution has begun to change the way decision makers nationwide approach the conundrum of overcrowding."

"Arches was selected as a proving ground because it recorded some of the highest increases in visitation over the last decade and its specialized environment is imminently threatened."

"When we hit the point where thresholds are surpassed, management is required to take action to come back into compliance. That could mean any number of things, from implementing a backcountry permit system to shrinking a parking lot so that the number of people visiting a site is limited. Or it might mean allowing only so many people to enter a park at any one time." (-Marilyn Hof, planner and lead VERP coordinator, Denver Service Center)

"The old way of doing business was simply to expand the infrastructure to accommodate even more people when conditions started getting crowded, which only exacerbated the aesthetic, biological, and social problems."

(-Terri Martin, director of NPCA's Rocky Mountain region.)

"Hof said there is no certainty that political meddling or lawsuits filed by interests seeking financial gain from park visitation could not usurp the scientific process. However, the consequences of not acting are far more risky."

"In the past. Whenever we were taken to task for some kind of decision about visitor use — whether it was to increase it or control it — we were faulted [because] we didn't have a process that we could defend. Now we do."

(-Marilyn Hof, planner and lead VERP coordinator, Denver Service Center)

"Until the latter part of the 1980s, the Park Service had a single-minded approach to coping with surging crowds that were inundating parks, Hof says. The asphalt trucks were called out, and millions of dollars were spent building bigger roads and more parking lots. More crowds, more asphalt – it became a self perpetuating cycle that pressed some resources to the brink of collapse."

"Many of the park superintendents realized that in the face of political pressure to increase visitation, it was far easier, and certainly less risky professionally, to keep a costly construction juggernaut going than to actually address the root of the problem, which was too many people putting too much stress on sensitive resources. Few park managers had the inclination to impose limits, and as park aesthetics suffered, environmental groups threatened to sue the agency for failing to protect its resources."

"Belnap says part of the problem is the transitory way that park management operates. Superintendents generally do not stay at a given park longer than a couple of years, and each one comes in vowing to draw a line in the sand."

"What they don't realize is that the superintendent before them did the same thing, and each successive manager allows the infrastructure to expand a little more. Within the short span of a single superintendent's tenure, the growth may appear small and acceptable, but if you weigh the long-term cumulative impacts and consequences of each new superintendent drawing a new shifting line in the sand, the resource loses out."

(-Jayne Belnap)

"Current Arches Superintendent Noel Poe is credited with being the first to take a hard line on carrying capacity by embracing the rather innovative ideas that VERP represents. Brushing aside praise from conservationists such as Martin and fellow managers within his own agency, Poe says he often had no choice."

"Often, park managers didn't have firm ground to stand on. If ever we were called to court, the first thing they attack is the process by which you arrived at your conclusions. If you're on the witness stand and testify that your actions were based on a gut feeling that allowing 30 people at Delicate Arch is appropriate, you'd get crucified."

(-Noel Poe)

"Visitors at Arches were also surveyed to see how they felt about various ways to limit visitation. Strong support was shown for such measures as restricting parking to designated spaces and requiring permits for off-trail hiking. A public survey conducted by NPCA and Colorado State University this spring confirmed that people are generally in favor of placing limits on visitation if necessary – even if it means that immediate access to parks may not always be possible."

"It broaches a subject that previously has been taboo – defining how many people can be doing what, when, where, and how; and then, if need be, imposing limits to ensure that the resource and the visitor experience are protected."

"The real test of VERP's strength will come when parking lots fill up, gridlock ensues, and politicians begin demanding that the asphalt trucks be brought out again."

-Todd Wilkinson, "Crowd Control," National Parks July/August 1995. 222

Quote 9

"All previous effort and expense will be futile if the critical step of implementation is not taken"

"Not only is implementation of the program six years overdue, but the condition of the resources continues to deteriorate in primary visitor use areas."

"Park managers and planners believe the first action necessary to return use levels to acceptable conditions is reduction of the areas available for parking. Controlling the size of the parking areas should control how much crowding occurs at the arches or on trails. With properly sized

parking areas, the maintenance of social crowding standards at the arches or trails should be more easily achievable."

- Bruce Rodgers (NP-CANY), "SEUG NRPP and WRD proposals," June 24, 1996. 223

Quote 10

"I think you'll see standards shifting but it is not something that you should do willy-nilly. The evil manager should not be able to change the standards just because he can't meet them and wants to avoid making a tough decision. When you change a standard you'd better be prepared to go back to the public and explain to them why you're doing it, and what you're doing."

- Noel Poe, "Impact of Visitors on Natural and Historic Resources of Conservation Significance," Department of Conservation, Wellington, New Zealand, 1996. 224

Quote 11

"Paul said it would be great to get ahead of the curve and do something now before the visitation problem goes from a weekend thing to an everyday thing" 4

"Indicators and standards for natural resource impacts and the social experience were developed through the VERP process. The line has been drawn for a social carrying capacity and the public has had plenty of opportunity to comment and has bought the capacity level."4

- Southeast Utah Group Squad Meeting," May 27, 1997. 225

Quote 12

March 23. "Where do we go from here? Open forum with moderator. – Implications for park management (...will we do something or has all of this been a waste of time and money?)"

- Agenda for VERP - Workshop - March 22-23, 2000, Moab. 226

-"Noel noted that a big mistake with Arches that they never got Maintenance involved from beginning; so when started to implement VERP turned to maintenance, there was resistance to work. Need all divisions participating to some level in the process."

"Karen [McKinlay-Jones, Resources, Arches NP] noted that visitation increased 60% between 1991-1999 and the number of social pull-outs along roads increased from 89 in 1995; to 174 in 1999. At Delicate Arch there are now occasionally over 108 people at the arch; which was the high end of the spectrum of computer generated photos – the future is here!"

"Jayne noted that resource indicators need be ecologically meaningful and tie back to the ecosystem to be legally defensible. Soil crusts are important because of what they tell us about the rest of the system. However; setting standards is still a judgment call because nobody knows how much soils loss is too much."

-Selected Notes From the Arches VERP Meeting, 3/22-3/22/00, Moab.²²⁷

Quote 14

FEARS

"That this will become just another plan/study collecting dust on the shelf – ideas never to be implemented and time and money wasted."

"Decreased visitor experience – heat, wait times, etc."

"Develop a system that is too big of a hassle for the public to enjoy or use."

"Experience of traveling to Arches takes on a cruise ship flavor (feeling of being herded)."

- Arches National Park Transportation Plan, Kick-Off Meeting Notes – Project Initiation, November 19-21, 2003. 228

"Visitor Experience and Resource Protection (VERP) RMVP staff did not conduct VERP monitoring surveys at the Windows, Delicate Arch, or Devils Garden this year due to the lack of staff. A total of 56 monitoring surveys were conducted in the motorized rural zone (Salt Valley Road) as part of routine patrols through that area and -0 - were conducted in the semi-primitive motorized zone (four-wheel drive road). None of the surveys conducted have been entered into a database due to the lack of staff."

-Superintendent's Annual Narrative Report, Arches National Park, Fiscal Year 2005. 229

Apparent Reasons for VERP's Failure

The latter records of VERP planners do not preserve a mood of optimism.

While in 1995 the VERP team was highly optimistic, by the year 2000 its members shared strong concerns that visitation and visitor impacts were continuing to exceed the indicators their process had developed. Some VERP veterans, brought into the traffic management process that began in 2003-2004, approached their participation in this new planning effort with cynicism. Below are this study's current understandings of the major reasons why decisive management action to stop exponential visitation and overcrowding was not taken at Arches at the time that the need to do so became increasingly apparent.

1) In 1995 Arches' Superintendent Noel Poe resigned just before the hardest work of VERP began. The importance of his responsibilities appears not to have been effectively passed on to his successors.

Noel Poe's decision to leave Arches to work at Theodore Roosevelt in 1995 appears to have ensured (although not to his knowledge at the time) VERP's failure. The most difficult part of VERP would be implementing visitation restrictions to preserve a quality experience as visitation increased. By leaving to work at another park before the final and most crucial step of VERP was undertaken, Poe ensured that a high level political conflict, which fundamentally pit the paradigms of ethical, sustainable land use against limitless commercial growth and profit maximization, would be left for his successors to take on. That is an extremely difficult conflict to expect anyone without serious buy-in to lead successfully.

2) During the 1990s SEUG received inadequate budgets for its constituent parks to maintain key positions of responsibility and implement core programs.

Extreme budget cuts in the 1990s led SEUG administrators, under Walt Dabney, to leave the Arches Superintendent position unfilled from 1995 to 2000. In 2000 it was filled on a temporary basis by Rock Smith who was on loan from Utah State Parks under an experience sharing program for which money was specifically available. Rock Smith and his successor, Laura Joss, do not appear to have been personally won to VERP's importance of as a major component of their responsibilities. VERP's importance does not appear to have been effectively communicated to them prior to or upon the start of their position from their superiors at SEUG or higher levels. Neither of them chose to implement the management actions VERP had articulated and recommended by 1995 when use began to exceed agreed upon and publicly supported carrying capacity indicators.

3) Inadequate budgets have historically distorted SEUG and its organizational predecessors' potential to maximize efficiency while preserving independent authority.

In 1986, Harvey Wickware was hired to re-organize the unwieldy and confusing Canyonlands Complex Administrative Structure. Under that structure, a Canyonlands Complex Superintendent had executive authority for Arches, Canyonlands, and Natural Bridges. Subordinate to him were "Unit Managers" who functioned as park unit superintendents but without full authority or independence of action. This confusing and problematic arrangement was an inherited legacy of the Bates Wilson era.

In 1949, Wilson was hired as the Custodian of Arches *and* Natural Bridges because after Zeke Johnson retired from Natural Bridges, the Southwestern National Monuments organization of NPS units lacked the budget to afford a full time professional replacement to oversee both areas. No one else in the Blanding / San Juan County era was willing to undertake a level of work, essentially for free, that Zeke Johnson had only agreed to because it allowed him to function as a self-interested commercial tourism booster in flagrant violation of contemporary understandings of ethics and conflicts of interest.

Bates Wilson, while living at the Rock House in Arches, led local movements to explore and create Canyonlands National Park during the 1950s and early 1960s and was appointed to simultaneously serve as its Superintendent from 1964 to 1972. This appointment was based on Wilson's personal knowledge of that area, and his local prestige. A major limitation of MISSION 66 is that it required Congress to pass annual budgets to fund its programs. Congressional will to fully fund MISSION 66 never matched its planners hopes. In August, 1962, a major alteration to the MISSION 66 plan for Arches was the cutting of anticipated funds to pave the road to Wolfe Ranch. The cut reflected how over-extended the NPS system was already at this time. As Senator Bennett shared with the *Times-Independent*:

The decision to cut back at Arches appears to be part of an overall program of cutting back expenditures for Utah National Parks in order to make more money available for parks in other parts of the country. He said that the administration has cut more than \$1 million from Mission 66 expenditures for Utah, including serious cuts at Dinosaur National Monument and Bryce Canyon National Park, as well as the cuts at Arches. ²³⁰

Bates Wilson may have been given simultaneous authority over three NPS Units for multiple reasons. It is difficult not to suspect that cutbacks to NPS spending in Utah partially motivated the decision not to appoint a replacement superintendent for Arches and Natural Bridges at the time Wilson assumed superintendency of Canyonlands.

A major goal of the regional directors who hired Harvey Wickware in 1986 was for him to help restore independent authority of the different units within the Complex, (while preserving

the cost savings and efficiency advantages of a shared group structure). To the extent that he succeeded SEUG can be recognized as a major achievement.

However, budget cuts during the 1990s were extreme. Political partisans today may not fully remember the Clinton Administration's enthusiasm to shrink government, improve its efficiency, and privatize aspects of its use if necessary. The importance of volunteers and interns as supplements for paid staff rose dramatically at Arches and throughout SEUG during the 1990s. Long term planning priorities became less important that identifying where niche funding sources existed – usually only usable for short term projects. SEUG management increasingly chased one-time corporate donations, earmarked money for specific projects, and Fee Demo money that could only be spent in accordance with specific rules. Budget tightening was so intense that from 1992-1993 and again in 1996, Arches' managers considered closing the Devil's Garden campground.

It is notable that the specific corporate donations SEUG is on record as receiving to help with its Arches budgeting in the 1990s reveal, in hindsight, significant ethical concerns. Two major donors, Exxon and American Airlines, were encouraging exponential fossil fuel based transportation for recreational purposes at the very time that scientists looking at climate change were reaching increasingly clear conclusions about the danger these fuels posed. Accepting a \$100,000 donations from NIKE in 1996 to fund an educational program for children in Grand County raises similar concerns over the motivations and purposes for which such donations are offered. One month after the donation was accepted, *Life Magazine* broke a major story on NIKE's widespread employment of transnational child labor in poorly compensated and inferior working conditions. Subsequently this became a major, international, public relations scandal.²³¹

The Arches superintendent position's elimination from 1996 to 2000 changed power dynamics within SEUG. Immediate responsibility for Arches went to Chief Ranger Jim Webster, who had been a part of the VERP planning team, but whose job did not require him, train him, or compensate him for the work of implementing a major project that directly conflicted with the values and expectations of building a bigger tourism industry that was shared by most Utah politicians and the power structure of Moab, Utah where he lived. Final decision making authority for Arches reverted to Walt Dabney, SEUG Superintendent.

Underappreciated at the time, a significant conflict of interest existed by the late 1990s and early 2000s between top administrators of Canyonlands and the needs of the VERP project at Arches. Walt Dabney is remembered fondly as a highly competent and effective park administrator. He continues to live in the Moab area today where he is widely respected. His biggest priority while at SEUG was to expand Canyonlands' boundaries, "rim to rim." He devoted extensive time while at SEUG to lobbying visiting politicians and local residents about the advantages of doing this.

If Walt Dabney had chosen to implement VERP's recommendations of reducing visitation at Arches, it would have put him into a direct political conflict with most political allies he simultaneously needed to expand Canyonlands. Politicians and businessmen interested in tourism's economic benefits would have accused him of stifling economic growth in Moab, and they would have likely discouraged other residents of San Juan Country from allowing the NPS to have any more control over additional lands that, in their view, would under "preservationist" management lose their potential to generate income.

National Parks, at different stages of development and visitation, have unique management needs. Canyonlands was still so lightly visited during the 1990s that the traditional shared language of tourism boosters, environmental preservationists, and professional NPS managers could be spoken by all three with minimal apparent recognition of conflicting values or intentions. At Arches, this was no longer the case. Either commercial tourism in Moab was going to stabilize into a sustainable industry or visitor experiences and environmental resources at Arches were going to suffer. Either traditional visitors who liked a quieter park were going to be displaced, or investors arriving in Moab to capitalize on increased visitation were going to have to be told to modify their plans or look elsewhere for better returns.

The tragedy of Walt Dabney and Noel Poe's relationship is that they do not appear to have been able to clearly recognize this divergence in each park's needs, and no long term plan for implementing VERP appears to have been worked out by the time Noel Poe left.

Perhaps, the final word on VERP belongs to Poe himself. As he remembered in his oral history:

Arches was designated as the pilot park to do visitor use management. It was a real interesting time in Arches' history, to have the honor of being a pilot park for such a major program . . . we got most of the staff involved . . . looking back on it . . . the one division that . . . I thought later that we should have had more involvement in was the Maintenance division. And the other mistake I think I made was that we should have had more of the Canyonlands staff engaged in that pilot study because once I transferred and moved on to Theodore Roosevelt after the VERP was signed off and everything . . . outside of the staff at Arches which did a great job of trying to move VERP forward and into total implementation . . . we didn't have anyone up for Canyonlands' office that knew enough about it . . . Superintendent Walt Dabney . . . wasn't involved that much nor were the Chief of Maintenance down at Canyonlands and other people in the group office. ²³²

4) The Visitor Experience and Resource Protection framework was superseded by a transportation planning framework, ineffectively.

Rather than implementing decisive methods to stabilize and/or reduce visitation, SEUG and Arches management after the year 2000 increasingly chose indirect methods of more actively managing increased visitation, rather than attempting to fundamentally limit it. Increased visitation appears to have been redefined, culturally within SEUG, from a carrying capacity problem to a transportation management problem. One extremely clear artifact of the ineffectiveness of this approach is Arches' 2006 Traffic Congestion Management Plan and Environmental Assessment. In 2003, veteran VERP planners at Arches appear to have correctly predicted the final result of this project with extreme cynicism: "This will become just another plan/study collecting dust on the shelf – ideas never to be implemented and time and money wasted." 233

A private consulting company was paid to create this plan through a rigorous engineering and public scoping process. In 2003, in depth public scoping began. In July 2004, Arches' and SEUG's managers at the regional level decided they could not to support this program's most significant potential feature – a shuttle bus system. Another significant component – widening the existing road to incorporate bike lanes – was estimated to cost an average of \$250,000 per mile and was similarly rejected. Most of this plan's other recommendations were not found to be helpful, or affordable, and were never implemented. By September 2006 it was estimated that, to date, \$528,000 had been spent on what became the "Arches National Park Transportation Implementation Plan & Environmental Assessment."

During the 2000s and 2010s, management messages to disperse visitor use were continually outpaced by overall visitation increases. In 2018, messages to visitors recommended coming to Arches before 8:00am to avoid crowds. On at least one occasion in 2021, Arches' closed its gates as parking lots filled by 7:00am. Meanwhile increased use has been pushed to quieter areas within and outside of Arches until those areas too have acknowledged carrying capacity dilemmas. An example of this was the 2017-2018 decision by a backcountry management team to end dispersed backcountry use at Arches, and to encourage staff to tell visitors seeking backcountry experiences to consider going to Canyonlands National Park instead. In 2021, Canyonlands National Park initiated a public scoping process as it asked for additional funds for management and more thorough regulation of increased backpacker use. The long term value of relocating problems from one park to another before they are effectively dealt with in ways supported by science and the public is, at best, highly questionable.

Transportation planning remains a popular theoretical framework for visitors and even some land managers who are encountering exponential visitation as a problem. "Have you considered getting shuttle buses?" is a question Arches' current front line staff fields multiple

times a day. Despite the significant financial costs and blind spots of that perceived solution, it remains extremely popular for the reason that it does not challenge the underlying desires and assumptions of most visitors, most commercial tourism boosters, or the fossil-fuel based transportation infrastructure that both visitors and boosters expect to continue expanding.

For some time still, within the popular imagination, the proper application of concrete, asphalt, money, gasoline, vehicles, and staff may still be able to turn lead into gold. Despite alternative transportation systems' well documented limitations, which Arches and SEUG planners have for years attempted to patiently explain, they persist as commonly imagined solutions not because of what they can do, but because of what they allow humans to not have to do. If modernity, properly applied, can allow exponential curves to continue; changes in behavior are not necessary.

The current size of Arches' parking lots is an architectural legacy of not dealing with exponential visitation directly. It appears that, with VERP standards many times over since exceeded, parking lot size has become the *de facto* management standard of carrying capacity at Arches. Unlike the standards VERP articulated, current parking lot sizes are not based on standards of crowding supported by public preferences; nor any biological or scientifically supported arguments for what a certain number of cars and human visitors can do to a fragile desert landscape.

VERP planners spent a great deal of time discussing parking lots. One of VERP's major findings, repeatedly emphasized, is that not expanding parking lots is a good way to prevent increased trail crowding. VERP's team also acknowledged that it might even be necessary under certain circumstances to reduce the size of some parking lots. It awaits review to determine whether this might be a prudent step today at Arches.

Conclusions

Familiar to park staff and visitors, but more difficult to quantify, measure, and present in compelling form, are visitation's impacts to national parks' intangible resources. What does it mean to hike to, arrive at, and ponder a rare geologic formation's secrets alone, or only with one's family or friends? How does that experience differ from doing the same thing alongside several dozen or several hundred strangers? How can we articulate the value to society that hiking along a quiet trail provides? How can we distinguish the importance of that experience from the qualitatively different experience of hiking along a crowded trail? What is lost when our parks loose silence? Or when helicopter, airplane, and idling bus and truck engines substitute mechanical intrusions for an ambience once provided by birds, wind, the sand compacting under one's feet?

Do parks still exist to serve a civic role, providing opportunities for visitors to form quality connections to the natural world, historical processes, and each other? Or are they simply economic engines to subsidize regional transportation and tourism industries?

Whose interests does the National Park Service represent? To whom are its decision makers ultimately accountable?

Was it necessary for the NPS to manage VERP as an internal process with minimal direct public involvement? Or could visitor and citizen participation been better incorporated into its structure to ensure accountability?

These are questions presently facing management at SEUG, in many other western parks, and at analogous places throughout the world. The answers to them are not, under present conditions, simple. In most instances, even starting to look for them may ignite political clashes with commercial tourism industries where altruism, quality experiences, and long term sustainability may not be among the principle values most passionately held. In the present context, leaders prone to evasive responses, indirect approaches, and with demonstrated tendencies to avoid confrontations and postpone difficult conversations are unlikely to emerge as successful managers of sustainable, or ethical, visitation management programs. Individual leaders acting in the legal, long term, and public interest are likely to face extreme difficulty attempting to resolve over visitation problems in mature tourism economies.

While the NPS has long worked to subsidize regional tourism economies, this agency has been charged with acting in the long term interests of the citizens of an entire country – not the business communities of gateway communities. If the NPS is not able to ensure the long term integrity of landscapes under its jurisdiction, and if visitor experiences in these areas are allowed to degenerate to the point of accelerating visitor dissatisfaction and displacement, the agency's

value may become increasingly difficult to justify. Ultimately, a context of exponential visitation becomes a context of exponential dissatisfaction.

The potential does exist to build upon the shared values that are leading so many Americans, in such large numbers, to search for quality recreational experiences in the first place. Visitors to national parks can be a source of genuine support, collaboration, and oversight. No substitute exists for the cultivation of quality long-term relationships with repeat visitors. Visitors and residents who return, who get to know an area, who care about it, and who raise their children amongst it are the most powerful allies and advocates public land managers can have.

It is the purpose of administrative historians to provide park managers and the inquiring public with accurate, honest, transparent, and readily accessible accounts of recent institutional performance. For diverse audiences grappling with the challenges of unsustainable visitation today, VERP can and ought to be remembered as a valuable federal investment of tremendous educative value.

Discussion Questions

- 1) Should the history of VERP be forgotten or interpreted? What does the NPS gain from ignoring VERP? What does the NPS gain from discussing its promise and failure frankly and transparently?
- 2) What are the consequences of the NPS' apparent noncompliance with the 1978 National Parks and Recreation Act (P.L. 95-625)? Does a mechanism for public accountability exist? Does a legal vulnerability exist?
- 3) Why did Superintendents at Arches and SEUG fail to implement decisive visitation restrictions when data collected under VERP told them it was necessary? What pushback could they have anticipated? How might they have successfully navigated those challenges?
- 4) Who bears the personal responsibility for the failure of carrying capacity management at Arches National Park? Are there any consequences for this?
- 5) What is the current measure of visitor carrying capacity for Arches National Park? Is the standard of that measurement based on science and/or visitor preferences? Is it publicly defensible?
- 6) Upon what evidence of necessity was the 2017 decision to close dispersed backcountry camping at Arches based? Were any of the standards developed by VERP, or earlier Backcountry Management Plans, used to make that decision? Is that data available for public review? Is that decision publicly defensible?
- 7) Is relocating user groups and specific activities from one park to another park an appropriate management response to increased use?
- 8) What are the long term consequences of an NPS unit discouraging long term relationship building with niche visitor populations?
- 9) How likely is a visitor who values personal exploration, natural soundscapes, intimacy, night skies, or solitude to regard Arches National Park as a welcoming place worthy of continued federal support?
- 10) After making firm public commitments to uphold quality visitor experiences based on defensible standards of carrying capacity that have been exceeded many times over; how likely is the public to trust future NPS visitation management efforts? How might that trust be rebuilt?

⁴ Frank Biasi, "How to Find Adventure (without the crowds) in Utah," *National Geographic*, April 22, 2022 <

https://www.nationalgeographic.com/travel/article/how-to-avoid-crowds-in-moab-utah >.

Harry Baker, "Post-Pandemic Overcrowding of National Parks Causing Bigger Problems Than Just Long Lines," Live Science, June 18, 2021 < https://www.livescience.com/overcrowding-us-national-parks.html >.

⁶ "Annual Park Recreation Visits," IRMA Portal, <

https://irma.nps.gov/STATS/SSRSReports/Park%20Specific%20Reports/Annual%20Park%20Recreation%20Visitat ion%20(1904%20-%20Last%20Calendar%20Year)?Park=ARCH>.

⁷ "Tourism Responsible for 8% of Global Greenhouse Gas Emissions," Carbon Brief, May 7, 2018 < https://www.carbonbrief.org/tourism-responsible-for-8-of-global-greenhouse-gas-emissions-study-finds/ >.

⁸ "Aerial Imagery Reveals Massive Die-Off of Arizona's Junipers," KNAU, Arizona Public Radio, March 30, 2022, < https://www.knau.org/knau-and-arizona-news/2022-03-30/aerial-imagery-reveals-massive-die-off-of-arizonas-

⁹ Rachel Fixsen, "Native Plants Helping Recovery: Volunteers Spread Seeds in Areas Affected by Pack Creek Fire," Moab Sun News, November 30, 2021; Zak Podmore, "Ken Sleight, Monkey Wrench Gang Activist, Loses Priceless Archive to Fire," Adventure Journal, June 22, 2021, < https://www.adventure-journal.com/2021/06/ken-sleightmonkey-wrench-gang-activist-loses-priceless-archive-to-fire/>; Doug McMurdo, "Second Storm in 2 Days Overwhelms Pack, Mill Creeks," TI, August 12, 2022.

¹⁰ "President Biden's Fiscal Year 2022 Budget Makes Significant Investments in the National Park Service," Press Release, May 28, 2021, National Park Service, Office of Communications, visited March 27, 2022, < https://www.nps.gov/orgs/1207/2022-budget.htm >; Nick Wyatt, "Utah Airports to Receive Millions From Biden Infrastructure Plan," KSL News Radio, December 16, 2021, visited March 27, 2022, < https://kslnewsradio.com/1961210/utah-airports-to-receive-millions-from-biden-infrastructure-plan/>.

11 Bates E. Wilson, "Arches – Natural Bridges National Monuments, Moab, Utah," August 15,1964, ARCH 101, Box 4, Folder 003-006.

¹² Masters or PhD level students researching exponential tourism's discursive history are reminded to supplement their reading of the Moab Sun News and Times Independent with a detailed analysis of the born-digital records of the "Bitching, Boasting, and Living in Moab" Facebook page. Bitching, Boasting, and Living in Moab, Facebook.com < https://www.facebook.com/groups/544908578938709/ >.

Henry G. Schmidt to Hugh M. Miller, February 17, 1941, ARCH 1860, Folder 2 (PDF); Henry G. Schmidt to

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