



Chapter Six

An End to Consensus

1976 - 1999

Since the days of Mission 66, the National Park Service has been subject to increasing criticism for its management of parks as tourist meccas rather than as natural sanctuaries. This disapproval had long been expressed but had been overridden by the onslaught of western development. Disapproval over park management attracted Grand Canyon advocates during the dams controversies. These advocates gained a political voice and aimed it where it could accomplish the most—at Congress, the executive branch, and the courts, as well as the National Park Service—in an attempt to shift public policy and administrative priorities away from accommodating unlimited numbers of visitors. The tenacity of NPS-concessioner relationships and the ascendance of regional tourism as a major economic force, however, has proved the strength of the economic rationale for creating and sustaining the parks. Concern for the integrity of park ecosystems may cause significant policy shifts in the twenty-first century, but in the presence of unrestrained population growth, development, pollution, and over-visitation, it has so far served only to complicate park administration.

NPS historian Richard Sellars argues that the National Park Service through the years has practiced “facade” management, with its principal goals aimed at scenic appearances regardless of biological consequences.¹ Sellars’s history of events is persuasive but suggests that the park service adopted such management practice as a conscious policy, that it had the authority to run the parks much differently, and that it has done almost nothing since the 1930s to effectually protect the environment. It is difficult to argue with the conclusion that the parks are not as healthy as they appear, and that money and attention have always followed a developmental path, but the responsibility for this is better attributed to our culture as a whole. In the second half of the twentieth century, popular awareness of the natural world progressed beyond notions of parks as refuges for conspicuous game animals and as international playgrounds, toward a realization of the necessity to sustain ecosystems—for humans’ sake, if not the rest of nature’s. Yet attention is still focused on demands of the traveling public. Perhaps the most appropriate censure that can be

directed at administrators from today’s perspective is that they have given most of us exactly what we wanted and have not taken an aggressive leadership role to protect us from ourselves. At the same time, that reproach should be tempered by an acknowledgment of what administrators have accomplished in the way of protection.²

The onset of World War II, constricted operational budgets, loss of New Deal money and personnel, and the swell of postwar visitation, along with nearly everyone’s preoccupation with visitor accommodations, reduced the promising ecological research begun in the parks in the 1920s to an operational undercurrent until the building frenzy of Mission 66 provided a catalyst for subsequent controversy. Lack of research and research-based management were among complaints, but most critics in the 1960s held fast to concerns for rustic landscapes amid the sprawl of new construction, while remaining anthropocentric in defense of open lands for human use and enjoyment. These critics were joined by ecologists from among the park service’s own ranks, conservation groups, and institutional sci-

entists who in turn were supported by scathing reports by the National Academy of Sciences and naturalist A. Starker Leopold completed in 1963.³

Systemwide, perhaps the most significant result of both scenic- and ecology-based criticisms since the 1960s has been a slight but noticeable shift in the historic imbalance of visitor use over resource protection, reminiscent of the limited gains made by earlier conservation initiatives over nineteenth-century exploitation of the public domain.⁴ The rise of the modern environmental movement just thirty-five years ago prodded Congress to respond with the Wilderness, Endangered Species, Federal Air Pollution, Water Pollution Control, and National Environmental Policy Acts. These environmental initiatives imposed real (if piecemeal, underfunded, and often frustrated) mandates for private industry and federal land managers. The National Park Service's overall response to these initiatives has been described as "sluggish," a fair assessment from the preservationist viewpoint. But park managers have complied with sociological, cultural, and environmental studies as funds have been appropriated, even though these studies have not yet resulted in an ecology-based NPS management culture.⁵

Administrators' approach to natural systems at Grand Canyon National Park began with the protection of scenic resources through set political boundaries and the exclusion of traditional extractive economies. Although aesthetic motivations have predominated and are still given higher priority in terms of base funding and personnel, managers throughout their eighty-year tenure have always addressed if not resolved manifest natural imbalances. Opposition to grazing, which clearly degraded native flora and usurped the range of native fauna, began in 1919 when the entire canyon except Bright Angel Point and Grand Canyon Village was considered open range, subject only to permits and a cow's ability to access the abyss.⁶ Cattlemen's opposition to restrictions included broken fences, open gates, overstocking, grazing beyond permit periods, and political appeals, and proved stiff from that year well into the 1950s. But park superintendents remained committed to grazing's demise within park boundaries, achieved at last in the mid-1980s. They proved their determination by terminating rights at the death of permit holders, reducing allotments in response to overgrazing and drought, assigning rangers to annual roundups, and allotting personnel to build and maintain drift fences.⁷

The elimination of grazing represents one of the most enduring, beneficial programs canyon administrators have ever undertaken toward environmental protection. Well-intentioned efforts to manage wildlife proved far more complicated and demonstrated a great deal of ignorance concerning ecology. At first, in the interests of protecting

animals valued by tourists and hunters, park rangers joined federal game wardens to enforce forest service policy, implemented in 1906, to exterminate four-legged predators.⁸ Primary targets were once-abundant mountain lions, bobcats, and coyotes but also included domestic dogs cats, and any other animal that fed upon deer, antelope, mountain sheep, elk, and other crowd-pleasing creatures. Consistent with evolving systemwide policy, Superintendent Tillotson modified this program in 1928, writing that predators would be killed "as needed so that serious danger to the more important game animals will be kept to a minimum." In 1931 he stopped the practice of killing them as a matter of course.⁹ Meanwhile, recognizing "many years of ruthless hunting" during the pre-park era, administrators immediately enforced the NPS policy prohibiting hunting and firearms within park boundaries. Rangers regularly patrolled park borders during autumn hunts on adjacent lands. They counted the number of deer bagged each season during the 1920s through the 1950s, arrested and prosecuted poachers, and in 1949 opened a "temporary camp and deer checking station" near the intersection of East Rim Drive and the Grandview spur road in order to check hunters passing through the park.¹⁰

Killing predators and prohibiting the hunting of game animals in Grand Canyon Game Preserve had, by 1920, produced too much of a good thing: an irruption of Rocky Mountain mule deer. The surplus incited a decades-long program of balancing their number with available browse while trying to improve range conditions. The U.S. Forest Service mitigated the problem by introducing controlled hunts on the Kaibab Plateau in 1924. In the same year, park rangers began to cooperate with the forest service and the Arizona Game & Fish Commission in their annual deer counts. A few years later, they began to participate in the forest service program to trap and ship fawns from within the Kaibab National Forest to game preserves throughout the West. Sixty of the trapped fawns were ferried by truck and air to the South Rim from 1927 through 1931, a number considered optimal for visitor enjoyment and range conditions. Tillotson wrote in 1932 that the "friendly little creatures" were great tourist favorites, but reconsidered their value when numbers climbed to 550 in 1934. An end to artificial feeding in November 1934 had little effect on overpopulation, and in 1939 Superintendent Bryant began to study the village "deer problem." In the early 1940s rangers again initiated a trap-and-ship program to "relieve congestion," removing thirty to one hundred semi-tame deer per year from the village to Desert View. By the early 1950s Arizona Game & Fish had taken over the program to transport surpluses to southern Arizona.¹¹

Mule deer were the park's most noticeable, and therefore most highly prized, animals, but rangers also moni-

tored less conspicuous native animals like porcupines and beaver, trying trap-and-release methods in the 1930s to relocate the latter away from threatened cottonwoods along Bright Angel Creek. Working with the U.S. Biological Survey and private funding, they also introduced twelve pronghorn antelope to the Tonto Platform near Hermit Camp in 1925.¹² Rangers had high hopes that these tourist attractions would thrive through artificial feeding and restoration of the platform's native flora. In 1931, when only nineteen were counted, rangers began to doubt the habitat's suitability. The entire herd of twenty-four were enticed to Indian Garden by 1933 following the closure of Hermit Camp, but when artificial feeding ended in 1935, they began to scatter along the Tonto Platform as far east as Pipe Creek. In 1944 only one remained, at Indian Garden,¹³ and rangers turned instead to the propagation of wild turkeys

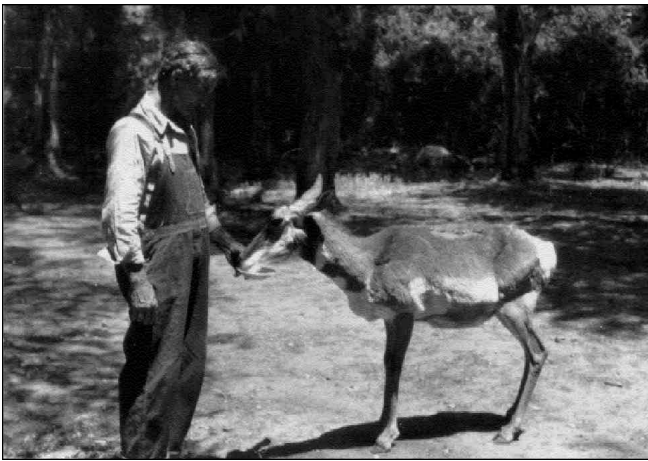


Figure 41. At Indian Garden, trail caretaker Newt Schaeffer feeds one of the few surviving antelope introduced to the Tonto Platform in the 1920s. Artificial feeding of "game" and other crowd-pleasing animals was park service policy prior to World War II. GRC A 17673; photo by Edwin McKee

that had migrated to the Grandview area by the same year. During 1948-50, they released a number of gobblers into the wild flock and thereafter noted an encouraging increase in the village area.¹⁴

Administrators combined these programs to manipulate native animals with erratic efforts to address exotic species, favoring their introduction when they promised to enhance the visitor experience or their removal if they caused evident biological damage, before settling on a consistent policy of exclusion (or control) by the 1960s.¹⁵ Feral burros that had thrived on the Tonto Platform after abandonment by prospectors and early tourist operators were held in greater disdain than cattle because they denuded the range and thereby threatened native fauna like the desert bighorn. They also wore a bewildering array of paths that confused hikers, accelerated trail erosion, and enticed Fred Harvey

Company mules to leave the Bright Angel and South Kaibab Trails. Rangers shot more than 1,500 burros during patrols along the Tonto Trail between 1924 and 1933, when Tillotson, believing they were under control, modified policy to one of "partial extermination." By 1949 another 1,600 had been shot, and hunts persisted into the 1970s when public sympathy led to a successful if expensive program of trapping, removal, and adoption.¹⁶

Eliminating one exotic species did not prevent administrators from undertaking an aggressive program to introduce nonnative trout to the canyon's perennial creeks, solely to promote sport fishing. Between 1919 and 1964, rangers obtained more than a million eggs and fry of loach leaven, rainbow, black spotted, and eastern brook trout from hatcheries at Page Springs, Arizona, and Springdale and Richfield, Utah, laboriously packing them in aerated cans down to Roaring Springs, Bright Angel, Wall, Ribbon Falls, Clear, Havasu, Shinumo, and Tapeats Creeks, and Thunder River. In 1931 Tillotson wrote that all "favorable trout streams of the Park are now well-stocked." Policy thereafter remained one of annually checking and re-stocking tributaries following major floods that flushed trout to their deaths in the murky Colorado River. Rangers also periodically checked food supplies and on at least one occasion planted freshwater shrimp as a food supplement. In winter 1931-32 they built a field hatchery at Roaring Spring that was used to stock Bright Angel Creek and nearby drainages, and began to receive training in "fish culture." In 1935 Tillotson bragged that the canyon contained some of the best fly-fishing streams in Arizona, but that they would require "continued re-stocking if we are to meet the fishermen's demands." Stocking within the park ended in 1964 but began above Lees Ferry soon after. The cold, clear water released from Glen Canyon Dam is now an avenue rather than a barrier for exotic trout that make their way downstream to spawn within canyon tributaries.¹⁷

Early attention to forest health exceeded even the considerable enthusiasm displayed for wildlife management. There were three clear goals: protecting the forest from disease, insects, and fire; cutting as few trees as possible for developmental purposes; and maintaining scenic areas beside roads, trails, and developed areas.¹⁸ To achieve these aims, the National Park Service sought the assistance of the American Forestry Association, U.S. Forest Service, and Bureaus of Entomology and Plant Industry to augment efforts of its own forestry division. The latter two federal agencies studied forest pathology and directed rangers to attack infestations with cut, peel, and burn programs in the 1920s and 1930s. These methods gave way to more effective though indiscriminately deadly, chemical treatments in the 1940s, which were combined with biological measures by the 1970s.¹⁹

Grand Canyon administrators began their long association with the Bureau of Entomology during the 1924-26 campaign against the Black Hills beetle within North Rim stands of ponderosa pine. Thereafter, entomologists made frequent inspections of north- and south-side forests, and park rangers, with CCC assistance in the 1930s, undertook periodic maintenance programs to control endemic insects and disease. Aside from the Black Hills beetle, superintendents reported campaigns against tent caterpillars among North Rim aspens in 1933, the southwestern pine bark beetle within ponderosas in 1936, black canker among North Rim aspens in 1942, ponderosa twig blight in 1945, and epidemic scale and mistletoe infestations along the South Rim in 1948 and 1949, respectively. Before the 1940s, controls consisted of cutting, peeling, and burning the bark of as few as seventy to as many as thousands of infected trees, with peeled logs saved for fuel, barrier logs, and small construction projects. Failure with experimental "spraying" against scale led to a study of the disease's "life history" in 1948 along with plans for additional chemical treatments. USDA pathologists researched black canker during 1941-44. Park rangers consulted with NPS regional and assistant chief foresters before undertaking a lengthy program of mistletoe control during 1949-52 that consisted of pruning, felling, peeling, poisoning, and chipping infested trees along East Rim Drive and within the village. DDT made its appearance in 1953 when rangers sprayed a fifty-foot strip of aspens for tent caterpillars along Point Imperial Road, reporting the treatment to be nearly 100 percent effective.²⁰

While efforts to control forest insects and disease were focused almost exclusively along roads and within developed areas, an unrelenting war on fire encompassed the entire park and adjacent national forests. Park administrators agreed with USFS supervisors to report and suppress fires regardless of jurisdiction. Beginning in 1919 and during each summer thereafter, park rangers—later replaced by CCC recruits then "fire control aids"—staffed park lookout towers inherited from the forest service and reported smoke by single-strand wire to the superintendent, who dispatched rangers to the vicinity.²¹ Throughout the 1920s-1950s, efforts became more intense, sophisticated, and costly. Methods and tools included fire training for nearly all park residents, formal fire control plans by 1929, a vegetative type map and "fire atlas" completed in 1935, better telephone alert procedures, experiments with field radios in 1937, the use of patrol planes by 1949, a central forest fire dispatching system in 1951, and ground-to-air communications by 1952. Superintendent Bryant was satisfied that annual fires burned an average of less than one acre per thousand in the early 1950s, unaware that total suppression had radically altered forest ecology and created conditions for catastrophic high-intensity fires. This policy changed in 1978 when

the park began to implement prescribed burns, but today it is recognized that it will take decades to reverse the ecological damage of fire suppression policies.²²

In addition to direct environmental efforts outlined above, the park's few rangers tried to advance the general knowledge of flora and fauna and to improve habitat. Beginning in 1919, they consistently accompanied or assisted scientific investigations undertaken by outside agencies, a practice that continues today through the park's Science Center. Chief Naturalists Glen Sturdevant, Edwin McKee, and Louis Schellbach, botanist Rose Collom, and members of Grand Canyon Natural History Association compiled checklists of geologic features, flora, birds, reptiles, amphib-

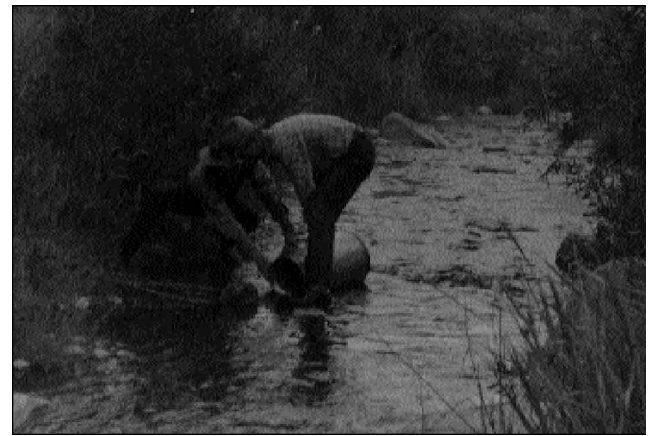


Figure 42. Rangers planting trout fry in Clear Creek in 1940 to attract anglers from Phantom Ranch. GRCA 1302.

ians, and mammals, thereby establishing rudimentary base lists and uncovering rare and endangered species worthy of attention. Rangers assisted by CCC crews also embarked on modest soil, erosion, and revegetation projects and, in the 1930s, tried to begin sustainable studies by fencing half a dozen sample plots to monitor the effects of cattle and wildlife on native flora.²³

With the ecological knowledge gained in the last half-century, it is easier to judge that these early programs to "assist" nature did as much harm as good, yet administrators of the park's first fifty years clearly sought and occasionally achieved something better than simple facade management.²⁴ Unfortunately, these efforts did not lead to sustainable research in the 1960s. Administrators were overwhelmed by popular demands for tourist facilities that resulted in the developmental mania of Mission 66, when the park service in effect yielded whatever preservation leadership role it had held to more militant environmental groups. These groups, not the park service, influenced passage of the National Environmental Policy Act (NEPA) in 1969, requiring land managers to include environmental assessments or impact statements within their planning

process. In the opinion of many, Grand Canyon administrators have since remained ecologically passive along with the rest of the park service, improving their rhetoric but limiting their action to legislative compliance while continuing to focus on visitor accommodation. Grand Canyon's 1976 Master Plan tends to support this criticism. Its prose and goals range beyond hackneyed citations of the NPS enabling act to calls for research-based management, yet it candidly admits that the park service alone will decide "how unnatural a particular tract will be allowed to become." The plan itself was mostly ignored for the twenty years it remained in force. The 1995 General Management Plan, which includes environmental objectives of the 1976 document that were never met, is again written in environmentally sensitive terms, yet emphasizes expensive structural solutions to allow still more people to enter the park.²⁵

MODERN MANAGEMENT ISSUES

Western immigration and development have always clashed with traditional park service goals to protect scenic assets and peoples' ability to enjoy them. Recent aspirations to preserve park ecology, whether or not espoused by park administrators, have merely complicated management practice. Special interests may argue which way policy should lean, but whatever path managers choose they will be hampered, and perhaps thwarted, by modern pressures that our capitalist culture and overpopulation have created. Nearly all park concerns today stem from regional development and pollution or from visitors whose numbers have doubled in the last quarter century to five million per year. Some problems are largely confined within park boundaries and easier to manage (if not resolve) to everyone's satisfaction. Others originate near and far outside the park, involve competing land and air management agencies and other cultures, are difficult to manage, and are seemingly impossible to resolve. Economics, politics, democratic use, and technology remain common elements to these issues, with complexity usually proportional to the amount of money to be made or lost by the private sector.

Although few issues today are simplistic, backcountry use (other than along the Colorado River) is one of the more straightforward. Prior to the end of World War II, few individuals hiked the canyon, almost no one venturing outside the central corridor. Numbers began to swell when young men, conditioned to long walks with heavy packs, began to descend for day hikes and overnight stays. In 1971 rangers estimated that only 25,000 people day hiked or camped below the rims, and it was policy to encourage more of the same outside the corridor. In the following year, administrators for the first time advertised for commercial trail guide services, soliciting one company to operate from each rim. Usage had increased so dramatically by

1974 that the park established a backcountry office, reservation system, and its first Backcountry Management Plan in that year. Inner-canyon user nights reached 75,000 in 1976, leading to a new plan in 1983 that parceled the backcountry into more than sixty zones, with limits set on the number of overnight parties allowed in each. The plan was again revised in 1988 with input from the public and state and federal land management agencies, and continues under review today according to the overall goals of the park's general management plan.²⁶

Since the 1970s backpackers have fanned out to remote backcountry trails and engaged in cross-country treks. Approximately 82,000 user nights were logged in 1985. By 1991 the number had risen to 87,384, with an estimated 800,000 more day hiking the inner canyon. Most of these hikers remained within the corridor, but many had discovered easily accessible threshold paths like the Hermit and Grandview Trails. By 1997 the number of user-nights had increased to 102,000, then dropped to 94,000 in 1998 when the park began to charge fees for overnight use and adjusted reservation procedures.²⁷ In the latter year 8,520 backpacking parties spent 50,825 user nights within the Corrido Subdistrict, while 3,165 groups logged 43,081 nights in the Wilderness Subdistrict. Backcountry personnel, with input from the Science Center and others, continue to study the sociological and biological effects of inner-canyon use to help set limits. Damage to the environment and overcrowding have been mitigated through education and regulations particularly with regard to open fires, camping too near water sources and cultural sites, trampling sensitive cryptogamic soils, littering, and waste disposal.²⁸

There are problems, of course. On any given day in spring through autumn several thousand day hikers and backpackers warily plod along central corridor paths spotted with the wastes of frequent mule parties.²⁹ Those who hike the Hermit, Tonto, and Grandview Trails encounter fewer people and no mules but are required to stay in primitive camps where they are certain to meet other hikers. Others who invest the time to access more remote trails or engage in trail-less treks encounter still fewer people, but "crowding" is relative, and it is unlikely they will find a solitary experience unless hiking in winter or in the park's western and eastern extremes. Even then, they may walk within audible range of overflight corridors. Despite restrictions, the fragile arid environment is also somewhat worse for wear, since an unknown number of hikers do not bother with permits, ignore regulations, and remain ignorant of low-impact concepts. In this regard, the park employs too few backcountry rangers who could check abuses and educate backpackers.³⁰

The backcountry reservation system works rather well for a number of reasons, not least of which is relatively low

demand for the grueling backpacking experience that keeps waiting lists short and discourages commercial involvement.³¹ The same cannot be said for running the Colorado River through Grand Canyon, the livelier and more complex use-related backcountry issue. Running the river used to be an unpredictable, dangerous, uncomfortable, but rewarding adventure. It attracted fewer than one hundred participants prior to 1950, and fewer than one hundred per year through the 1950s, under the guidance of pioneer outfitters who launched only one or several trips apiece in any given year. Administrators' concerns under these conditions were strictly for safety; otherwise, they welcomed and shared vicariously each group's adventure. Usage rose dramatically with the completion of Glen Canyon Dam, which created consistent flows of cold clear water, a predictable rafting season, and large-scale commercial opportunities. In 1965 only 547 people ran the river, spending a total of 5,000 user nights along the canyon's 400 or so campable beaches; in 1972, 16,428 river runners spent more than 100,000 user nights along the same beaches during the May through October season. Conspicuous ecological damage and crowding in that year prompted the park service to set limits for the first time, allocating 89,000 (92 percent) user days to twenty-one commercial outfitters and 7,600 user days to private applicants.³²

Partitioning the river in this manner ignited the first of several controversies. By 1976 the number of private applicants exceeded private and commercial allocations combined, causing the Wilderness Public Rights Fund to file suit against the Department of the Interior, the National Park Service, and Grand Canyon National Park for violating the NPS enabling act, which states that "no natural curiosities, wonders, or objects...shall be leased, rented, or granted to anyone on such terms as to interfere with free access." Commercial operators replied that they served individuals who could not make the trip on their own, thereby helping to achieve park policy to accommodate "a broad spectrum of individuals." Administrators—perhaps influenced by sociological research in 1976 that suggested that a launch and trip scheduling system could raise capacity to 27,000 users and 300,000 user days—responded in the late 1980s by increasing the number of private allocations to achieve a eighty to twenty ratio. That ratio remains in effect today, but the conflict has hardly subsided since the private waiting list is now twelve to eighteen years long while some commercial allocations go unfilled each year.³³

Another nettlesome issue entails commercial operators' use of outboard motors to power an assortment of high-capacity rafts, cutting trip durations in half and thereby increasing profits and the number who may run the river. Although studies in the mid-1970s indicated that motor noise posed health and safety hazards to guides and passen-

gers through temporary hearing loss, opposition then and now comes mainly from oar-trip passengers and operators who resent the noise intrusion. Others, including some park personnel, would like to earn wilderness designation for the river corridor and cite the fundamental inconsistency of motors with provisions of the Wilderness Act. The park's interim river management plan in 1972 did not address this issue, but sociological studies in 1973-76 coincident with the Colorado River Research Program resulted in the park's first well-researched river plan, which passed the environmental impact process in 1979 with provisions to eliminate motors. Senator Orrin Hatch of Utah, representing commercial interests, succeeded in attaching a rider to the 1980 appropriations bill that would cut off NPS funding if the plan went into effect, causing the park service to back down. A new Colorado River Management Plan, scheduled for completion in 2001, may not specifically target motors but will "seek to reduce, to the extent possible, sources of noise that detract from the Canyon's natural quiet."³⁴

A future compromise over the use of motors may combine limited use of four-stroke outboards, muffling technology, or electric engines, but noise abatement does not fully address the question of whether the river environment is, or should be, a wilderness. It cannot be denied that the dam, with its moderated releases of cold, silt-free water, has transformed riverine life as well as recreational users' experience in so many ways that the river corridor is now a man-made structure. Many consider this a positive change. The altered waterway encourages the growth of food and shelter for non-native trout that in turn feed wintering bald eagles and elated anglers. The absence of severe floods that once scoured riverside vegetation an average thirty feet higher than today allows perennial thickets of native willow and exotic tamarisk to flourish, which in turn provide habitat for insects and therefore birds, including endangered species like the peregrine falcon and southwestern willow flycatcher. Beaver, deer, and other mammals also benefit, as do river runners, many of whom if given a vote would select the river's present condition over the former flow of liquid mud. Those who think along these lines of natural enhancement would agree with biologist Rene Dubos that the river is proof that changes wrought by humans often awaken nature's latent potential.³⁵

Most would have to admit that the Colorado River through Grand Canyon is no longer a wilderness by any interpretation, but there are at least some who would like it to regain that condition by removing the dam and returning the river to its natural flow. Until recent years such a hope was harbored by few other than "deep ecologists" and fans of Edward Abbey's *Monkeywrench Gang* who agreed with Aldo Leopold that the first law of environmental tinkering is to save all the parts. Lately, however, the cause ha-

been taken up by the Sierra Club and Glen Canyon Institute, the latter created in 1997 with the desire to decommission the dam and allow natural processes to restore Glen and Grand Canyons' ecosystems. The institute is just getting started and may in time garner the support of citizens, conservation groups, and politicians who won the fight against Marble and Bridge Canyon Dams. It is more likely that the dam will attain its ultimate destiny as a waterfall, however, before the opposition posed by urban oases' power and water demands, gateway communities' economic dependence, and concessioners' interests can be overcome.³⁶

The National Park Service has not joined the movement to remove Glen Canyon Dam, but supports ecological research and manages the river in ways consistent with wilderness principles, to the extent possible given pressure to accommodate river users. Research underway since the 1980s has focused on the frequency, duration, and fluctuation of dam flows and their effects on the river corridor. The 1992 Grand Canyon Protection Act, 1995 Glen Canyon Dam Environmental Impact Statement, and consequent Record of Decision by Secretary of the Interior Bruce Babbitt led to the creation of the Grand Canyon Adaptive Management Program in 1996. This program's Monitoring and Research Center now studies aquatic food bases, native and exotic fish populations, riparian vegetation, threatened and endangered species, bird habitat, and water quality and temperatures. The center is perhaps best known for its 1996 Beach/Habitat-Building Flow (artificial flood), the results of which are still being analyzed and debated. The Glen Canyon Institute considers these efforts (costing tens of millions of dollars) to be "Band-Aid" approaches to a seriously wounded environment. Research, however, may supply information that will help mitigate cultural and environmental damage.³⁷

Most visitors to Grand Canyon limit their stay to a few hours of panoramic viewing from the rim, gazing at rock shapes, slopes, sunrise, sunset, shadows, and shifting forms. Such visions have been obscured since mid-century by the emissions of internal-combustion vehicles plying regional and inner-park roads, but more so by the effects of immigration, development, and backcountry use throughout the Southwest. Specific sources include the creeping cloud of "mustard gas," as Edward Abbey labeled it, shrouding southern California; southern Arizona's and northern Mexico's mineral smelters and urban centers; coal-fired, electric generating stations; and fires within regional forests. Ever more regional residents contribute to the haze by adding to vehicle emissions, tearing up the desert's natural pavement with new construction and off-road adventures, and burning fossil fuels in stoves and fireplaces. In the nineteenth century, visibility from a lofty South Rim perch

reached into central Utah, Nevada, and northwestern New Mexico; now there are days when pollution cloaks even prominent features along the North Rim.³⁸

Canyon administrators have been involved in the nation's tepid struggle to limit air pollution since 1957, when several national parks were selected to participate in the Public Health Service's National Air Sampling Network. In that year, a device was installed at the fire tower near Hopi Point to measure benzol-soluble and total particulate matter.³⁹ President Lyndon Johnson's executive order of May 1966 charged federal agencies to comply with the Clean Air Act. Amendments to the act in 1977 designated the park a Federal Class 1 area, and in 1990 required formation of the Grand Canyon Visibility Transport Commission. Prodded by legislation, the NPS established its Air Quality Division in 1994 to monitor the atmosphere, review proposed major emitting sources like power plants, compile data on sensitive resources, and disseminate results to effected parks. Research conducted during 1987-91 led the Environmental Protection Agency to demand smokestack scrubbers at the Navajo Generating Station by 1999 to reduce sulfur emissions by 90 percent. An EPA-sponsored study of the coal-fired Mohave generating station is currently underway. The park's 1995 management plan and Air Quality Management Program set an aggressive agenda of monitoring visibility, acid deposition, and effects on cultural resources and biota, and directed administrators to reduce in-park emissions. Nearly all these measures depend on uncertain funding and cooperation from outside agencies, however, and significant improvements are not likely to come about any time soon.⁴⁰

Air pollution at Grand Canyon is a problem everyone recognizes. Few directly profit from its presence, therefore a national effort backed by legislation exists to reduce it. The same cannot be said for the visual and audible pollution of aircraft overflights that began in the late 1920s with one local commercial operator, a few hundred flights, and several thousand passengers—numbers that were not exceeded until the 1950s. In 1971 studies within the central corridor already revealed continuous noise at any point along its trails, yet by 1980 aircraft operations at Grand Canyon Airport jumped another 300 percent, making it the third busiest airport in Arizona. In 1985 forty air-tour companies operating out of five states comprised a multi-million dollar industry, transporting 250,000 customers per year and accounting for nearly all 100,000 operations at Grand Canyon Airport. Despite a long history of accidents—thirteen with a total of thirty-two fatalities within or near the park during 1981-85 alone—no rules existed other than the long-enforced prohibition against private and commercial landings and takeoffs within park boundaries. Voluntary guidelines to curb some of the more blatant safety hazards and limit flights to sound-reducing elevations failed as

pilots continued to fly anywhere, often cruising within fifty feet of the river and using thermal updrafts to climb out of the canyon (risky acts for loaded aircraft on a hot summer day).⁴¹

NPS and university studies of noise levels and surveys of backcountry users during 1971-86, combined with public meetings in 1985, elevated overflights to first place among the park's natural resource issues and prompted an Environmental Assessment that was completed in 1986. Congress passed the National Parks Overflight Act in 1987, requiring the Department of the Interior to forward recommendations to the Federal Aviation Administration that would "substantially" restore the canyon's natural quiet and provide for public health and safety. The act also prohibited flights below the canyon rim and called for the designation of flight-free zones. Recommendations later in the year suggested establishment of three air zones: Below Rim Level, prohibiting all but administrative flights and those intended to serve the village of Supai and the Hualapai Tribe's rafting business; four flight-free zones (designated the Desert View, Bright Angel, Shinumo, and Toroweap-



Figure 43.A Sikorsky S-61 carrying a truck down to Phantom Ranch to facilitate construction of the trans-canyon pipeline May 1968. GRCA 5208.

to-Thunder-River Zones) prohibiting operations below 14,500 feet over 44 percent of the park; and Above Rim Level, left for later definition. The primary purpose of zoning was to reduce

noise for backcountry users and establish overflight corridors, measuring two to nine miles in width for improved safety, although some consideration was given to cultural resources and wildlife.⁴²

The secretary of the interior's recommendations also called for a study group composed of representatives of the FAA, NPS, air-tour operators, aircraft owners, land owners, public land managers, environmental groups, American Indian tribes, and others, to monitor overflights and debate regulation changes. Since 1987 park representatives, envi-

ronmental groups, and the tribes have opposed the proliferation of flights, citing the need to fight "tooth and nail" with the FAA, which controls U.S. airspace and is charged with promoting, not limiting, commercial air travel. Flight zones, ceilings, and a few other restrictions have worked to a modest extent, but the legislative mandate to substantially restore natural quiet has not been achieved. Air-tour operators and their allies, among others concerned for tourism revenues, have argued the industry's importance to the regional economy and effectively resisted efforts to restrict the number of flights. Today, more than 80,000 flights per year—10,000 per month during summer—carry 750,000 passengers on thirty to sixty minute tours, making Grand Canyon the most overflown national park in the world. These numbers are expected to double by the year 2010.⁴³

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Issues that affect the backcountry experience and natural environment have in no way diminished attention that must be paid to administrative problems along the rim. Today the National Park Service employs most of its 325 employees and spends most of its \$14 million base funding (as well as special appropriations) trying to govern Grand Canyon Village: a 3.2-square-mile, transient resort town of 5,000 to 30,000 people.⁴⁴ Uncertain special funding and only a few personnel address the preservation of fragile ecosystems, but nearly all resources address the immediate demands of traffic control and parking, law enforcement and crowd control, interpretation, safety, housing, utilities, facility maintenance, and visitor accommodation.

Access to and circulation within the park has changed little since completion of approach, entrance, and scenic roads and trails in the 1930s. Administrators of the past sixty years have recurrently considered four-lane highways, park bypasses, and primary roads into rim backcountry, but have not effected real decentralization. Today's visitors travel essentially the same paths as their grandparents did. Most visit Grand Canyon Village or facilities surrounding the North Rim's Grand Canyon Lodge; an equal number drive one or more of the park's three scenic drives. Few venture off pavement to visit remote sites that offer no services. A number of pedestrian and bicycle paths have been built near and within developed areas since the 1970s to provide alternative ways for employees to get to work and visitors to view the canyon, but nearly all trails remain the same and are used as they were in the 1930s.⁴⁵ The inevitable result of unchanging rim and inner-canyon access, in the face of visitation that has increased 2,300 percent since 1935, is congestion and its attendant challenges.

Although administrators have not reduced or significantly redistributed private vehicles along the rim, they did launch one of the first mass transit systems to operate with

in the National Park System and facilitated the resumption of rail passenger service from Williams. The park's shuttle system began in April 1973 as a voluntary, summer operation along West Rim and Village Loop Drives, with a feeder line to the Mather Business Zone. The initial fleet of twelve "mini-bus" units with seventeen attaching trailers proved immediately popular. With alterations to routes and schedules, fleet additions, and partial conversion to cleaner propane and electric power, the system today serves more than two million riders per year. Usage is mandatory to the South Kaibab trailhead and Yaki Point (a recent route addition), and along Hermit Road in summer months, but is voluntary throughout the village. Overnight guests take better advantage of the system than day users, however, and since the visitation trend since World War II has been toward day use, an increasing number of motorists still compete for only 1,500 parking spaces and crowd the village and business zone. Grand Canyon Railway service, resumed in 1989 to recreate the pioneer experience as well as to ease traffic congestion, has produced good (though limited) results. In 1995, 130,000 entered the park in this manner, more than in any year during the historic period, although consumer demand so far requires only one train per day.⁴⁶

The National Park Service retains its strategy of shepherding campers to the park's three developed campgrounds at Grand Canyon Village, Desert View, and Bright Angel Point (totaling less than 500 sites), and to Trailer Village within the Mather Business Zone. These deliberate limits to in-park camping date to World War II when littering, vandalism, and related problems caused administrators to abandon their policy of designating widespread, undeveloped campsites. The policy makes it unlikely that an available site will be found in the summer season without a reservation. This causes frustration among those who ignore signs at entrance stations that announce site availability, but reflects the current intent to redistribute overnight accommodations. Since the 1970s excess demand for developed campgrounds has been easily satisfied in the surrounding national forests and private RV parks at Tusayan, Valle, Red Lake, and Jacob Lake.⁴⁷

Also since the 1970s, when research activities were accorded their own organization (the Resource Management division, now known as the Science Center), the park's interpretive focus has returned to visitor education. Campfire talks, guided hikes, and contacts at Yavapai Observation Station, Tusayan Museum, North and South Rim visitor centers, and Desert View persist. The park has increased the number and updated the texts of close to two-hundred wayside exhibits beside roads, trails, and historic structures.⁴⁸ The percentage of visitors reached through traditional forms has plummeted, however. Grand Canyon Association, which reopened Kolb Studio in 1993

as an interpretive site, organized Grand Canyon Field Institute in 1992, and has long provided most of the park's educational publications, makes up for some of the shortfall in direct contacts. Today's administrators would also like to make up for the loss by returning to outreach programs of the park service's earlier years, offering Grand Canyon National Park as a case study for interpretation of the natural sciences and U.S. history. Steps in this direction have been taken via Web pages on the Internet, the Grand Canyon Field Institute's Travelin' Trunk program for elementary schools, and urban information centers.⁴⁹

Developing campgrounds and educational opportunities has always presented challenges, but in the past quarter century these efforts have been eclipsed by the urgency of providing protective services that have grown more complicated, time-consuming, and expensive. Protection has always been a task of the ranger force, composed of men and, increasingly since the early 1970s, women who fulfilled responsibilities varying at a moment's notice from fee collection to forestry. Although primary duties have not changed much since the late 1940s, personal safety, com-

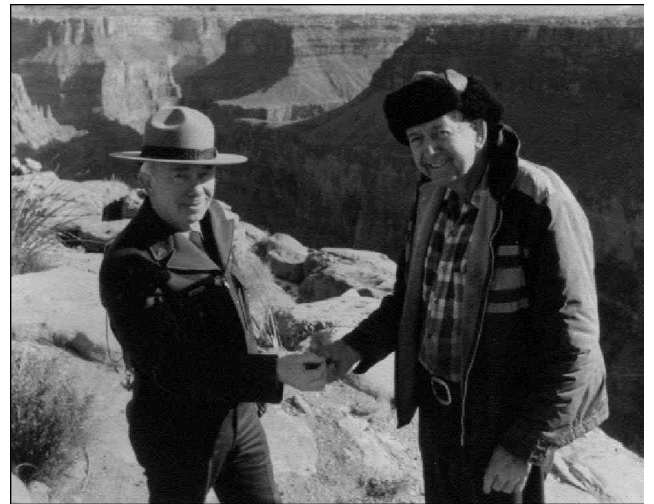


Figure 44. Superintendent Merle Stitt (left) and Tuweep Ranger John Riffy, January 1980. GRCA 5718.

combined with increased visitation and environmental concerns, has resulted in the growth of the park's most complex management unit: the Division of Visitor and Resource Protection. This division today consists of more than one hundred personnel and five branches: Ranger Operations, Law Enforcement, Fire and Aviation, Emergency Services, and Fee Management.⁵⁰

Ranger Operations remains the park's largest operating unit, with seventy-five employees, and retains most of the traditional responsibilities. Titles of other branches reflect former tasks that have in recent years taken on lives, budgets, and personnel of their own. Law enforcement, once a

peripheral duty addressed by all, is no longer simply a matter of enforcing rules and handling misdemeanors. Law enforcement personnel today are well-trained and armed, patrol major and minor roads twenty-four hours per day in police cruisers, and investigate serious crimes typical of resort communities. Rangers are no longer appointed deputy sheriffs but are still responsible for investigating crimes, making arrests (more than 6,500 in 1995 alone), and detaining offenders until delivery to the U.S. Magistrate in Flagstaff. Activities assigned to the Fire and Aviation Branch have also entered a new era. In 1997 NPS aircraft operations cost nearly \$500,000, an amount exceeding total park budgets prior to the late 1950s. In the same year, branch personnel began a massive project to clear brush from around the park's 2,000 or so structures, conducted fifteen prescribed burns totaling 2,100 acres, and suppressed thirty-nine wildfires. Emergency services have become more frenzied as administrators try to reduce serious injuries and deaths. In 1995 alone, NPS personnel conducted 380 search and rescue operations and handled 1,305 medical emergencies involving twenty-three deaths. In 1996 emergency medical technicians evacuated 224 sick and injured backcountry users by helicopter, and in 1997 treated 397 heat-debilitated visitors while answering an additional 1,371 emergency calls.⁵¹



Figure 45. Grand Canyon National Park interpretive staff, 1978. GRCA 11024; photo by Bob Buerfield

Housing remains a costly, chronic problem since regional development has not created a private housing market within easy commuting distance.

AmFac continues to shelter most of its young, single employees in cost- and space-efficient dormitories at Grand Canyon Village and Bright Angel Point. Increased visitation during summer “shoulder-season” months, however, has caused AmFac to turn from seasonal college students to permanent or more time-flexible employees such as retired couples whose housing demands differ greatly.⁵²

The National Park Service has not faced as dramatic a transition because it has employed a greater number of married men and women with families ever since World War II, but still has trouble supplying, upgrading, and maintaining adequate housing. The number of NPS employees has grown at a faster pace since the mid-1980s than at any other period in park history, and although an additional fifty-nine in-park housing units were completed in 1996 and 1998, shortages and substandard conditions persist.⁵³

Since assuming greater responsibilities for utilities at the South Rim (in 1954) and at the North Rim (in 1972), the NPS has directed more employees and funds to extending, maintaining, and replacing the infrastructure required of more visitors and residents. The park has taken advantage of public utilities like telephone, electricity, and propane fuel as they have been installed in the canyon vicinity, but the park must continue to supply other essential services required of growing communities including sewage disposal, wastewater treatment, and, most critically, the production, storage, and distribution of potable water. At the North Rim, the park has met the water requirements for more than 400,000 visitors and 290 concessioner and NPS employees through upgrades to the 1928 water system. Although peak demand during the five-month visitational season has reached 100,000 gallons per day, two two-million-gallon storage tanks are able to ensure a thirty-eight-day supply in the event of system failures.⁵⁴

Water production and distribution at the South Rim remain an irksome problem. The transcanyon pipeline was built to meet projected demands of 1985, when park managers expected that the system's capacity of 190 million gallons per year would be entirely consumed. That amount, in fact, was exceeded in 1980. More costly, crisis-driven upgrades to the pipeline, pumps, and distribution system, begun in the mid-1980s, have increased production but have barely met demand, despite extended hours of pump operations, storage capacity of thirteen million gallons, greater attention to leaks, and occasional conservation measures.⁵⁵

South Rim water problems are compounded by the needs of the park's burgeoning border town. Tusayan traces its origin to the homestead of U.S. Forest Service ranger George Reed, who sold his property to a Grand Canyon Railway worker, Bob Thurston, as construction of the South Approach Road got underway in 1928.⁵⁶ Thurston soon began development of a commercial gateway community that crept southward beside the new approach highway from an automobile camp (predecessor of today's Moqui Lodge). Only a few facilities existed by the late 1960s, among them Moqui Lodge, Red Feather Lodge, Ten-X Campground, Pop's Gas Station, the Tusayan Bar, and Canyon Food Mart. Still, the tiny community's 150 resi-

dents were already in need of more water, to supplement meager supplies obtained from Bellemont, Williams, and a handful of shallow wells. They requested water from the new transcanyon pipeline, but NPS options were limited by Public Law 91-383, passed in 1970, which prohibited water sales outside park boundaries when "reasonable" alternatives existed. Nevertheless, park administrators began to allow residents to haul water in 1971, when regional drought severed their normal supplies.⁵⁷

Tusayan water demands increased as community growth accelerated in the 1970s and 1980s, years when the park was also troubled by shortages. Administrators also expressed misgivings about hauling water on park roads and over Tusayan's unincorporated status, lack of development planning, and apparent lack of concern for conservation as town usage rose from 12.2 million gallons in 1973 to 16.7 million in 1977. The community enlisted the aid of county and state officials to convince the National Park Service that plans to reduce services at Grand Canyon Village underscored the importance of facilities outside park boundaries.⁵⁸ More commercial and political pressure resulted in Public Law 95-586, passed in 1978, that eased restrictions on sharing water, and a Memorandum of Agreement in 1980 whereby the park would allow hauling as long as its own tanks remained full. Under this agreement, the park sold 5.9 million gallons in 1980, or 3 percent of the South Rim's supply and 18 percent of Tusayan's annual use of 32.6 million gallons. The amount increased steadily to 13 million gallons in 1985, which was 7 percent of South Rim supply and 31 percent of the town's total consumption of 41.5 million gallons. Tourist facilities since that year have doubled, and the uncertainty and limitations of hauling surplus park water have led to wells that tap the Redwall Formation at depths of 3,000 or more feet. These wells have eased the trepidation of Tusayan's 550 businessmen and residents, but may pose one of the park's more serious ecological threats since the same aquifers feed many inner-canyon springs, the lifeblood of Grand Canyon backcountry, and no one is certain of their capacity.⁵⁹

ALTERED RELATIONSHIPS AND POLICIES

Congestion along the rims and the multitude of problems that accompany it, combined with the development of tourist facilities adjacent to park boundaries, caused the National Park Service to abandon its direct marketing campaigns after the 1950s. Although the NPS still supplies reams and reels of informational material and remains sensitive to accommodation and access (all important if unintentional sales elements), its zeal to ensure low-cost services has fallen away. NPS staff still review rate requests of in-park commercial users and negotiate prices to conform with gateway communities, but the enthusiasm of pre-1970s

directors and superintendents to use pricing as an inducement to visitation is gone.⁶⁰ This is primarily the result of congressional intent since the mid-1960s, and especially since the 1980s, to have a larger share of operational costs offset by higher concession, entrance, and user fees, similar to impact fees western municipalities now impose for new development.⁶¹ At Grand Canyon, this has led to entrance fees escalating from only two dollars in 1974 to twenty dollars in 1997, the latter amount levied with the Recreation Fee Demonstration Program that allows parks to keep 80 percent of such revenues. It has also resulted in "vexatious" user fees that Horace Albright had hoped to avoid, pegged to prices one expects to pay for services at amusement park and other private recreational facilities.⁶²

Allowing the price of admission and recreational services to "float" with the regional marketplace has increased revenues for ambitious park plans and has leveled the playing field for the private sector, which, since the 1920s, had complained that the park presented unfair competition by building to meet demand and charging almost nothing. Coincident with the park's shift toward higher prices and fewer facilities, services have mushroomed within the old gateway towns of Flagstaff and Williams and beside regional approach roads. Businesses within these towns, with help from county and state governments, supply what ever direct marketing effort is still required of Stephen Mather's "visitatorial magnet." Visitors who are more willing than ever to drive long distances to spend a few hours at a greater number of parks have also spurred the growth of new gateway towns like St. George, Page, Prescott, and Kingman, contributing to a glut in regional tourist accommodations. Tusayan alone supplies as many services today as Grand Canyon Village.⁶³

Growth of the regional tourism industry along with ecological concerns, rim congestion, and NPS policy shifts have, not surprisingly, altered relationships between administrators and concessioners. The days are long gone when Stephen Mather and Elizabeth McKee determined operations at Bright Angel Point with a cordial exchange of letters and Daggett Harvey wandered into Miner Tillotson's office while visiting the park with his family to outline the park's developmental future. More recent memories of Fred Harvey Company managers working closely with NPS administrators to agree on mutual needs and craft multi-year contracts have also vanished, along with the Santa Fe and Union Pacific Railroads, Fred Harvey and Utah Parks Companies, and the personal touch and idiosyncracies of Emery Kolb, the Verkamp Family, and the Babbitts. Today, a new generation of park and concession managers who are unaware of former partnerships react instead to the pressure of environmental concerns. Both are well aware that most services are no longer needed, given historic NPS guide-

lines to provide them only when nearby communities could not. But despite changing perspectives of the societal role of national parks, the diminished necessity for in-park services, and an entirely new cast of characters, concessions have multiplied and annual revenues now exceed \$100 million.

Concession contracts since the late 1960s have been guided by the general concession law of 1965, not far different from prior policy, that accords preference of renewal to incumbent operators and protects their possessory interest. Since that time, the park has established capital improvement accounts wherein operators set aside funds in lieu of all or a portion of franchise fees to ensure facility improvements that do not accrue possessory interest. This policy failed forty years earlier due to concessioner opposition and questionable legality, but was implemented at Grand Canyon in 1994 with amendments to existing contracts and subsequent new agreements. No contracts have been ex-

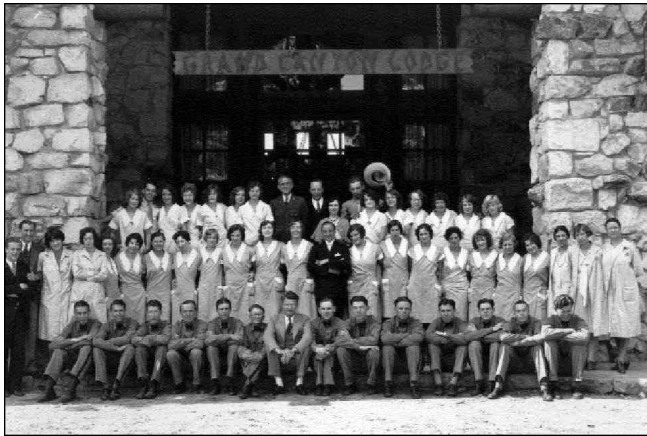


Figure 46. Utah Parks Company employees pose before the original Grand Canyon Lodge entrance, North Rim, 1930. Mine Tillotson and Utah Parks' manager W.R. Rogers and his wife are in the rear center. GRCA 509; photo by Georg C. Giant.

ended since passage of a new general concession law in late 1998. The National Park Service is holding up contract renewals and new bids until policy guidelines are in place, but the legislation once again eliminates capital accounts, guarantees possessory interest (renamed Leasehold Surrender Interest), and ends preferential renewal for large concessioners in the spirit of competitive bidding. The new law also allows the park to keep 80 percent of franchise fees collected from its concessioners and reduces contract durations to a maximum of twenty years.⁶⁴

Today, the pioneer venture of John Verkamp is perhaps the least changed of Grand Canyon's concessioners, although the family has retired from direct involvement in favor of hired managers and employees. Their most recent ten-year contract, which expired in December 1997 and was

extended for three years, varies little from prior agreements other than to increase franchise fees to 7 percent of gross and to require that another 4 percent be set aside for capital improvements. Babbitt Brothers's twenty-year contract ended in December 1987, but was renewed annually until a new agreement was executed in 1998. The current contract requires \$1.5 million in new developments and contributions to a capital improvement account, but is unique because it extinguishes the company's \$6.5 million possessory interest by 2017 in lieu of franchise fees. Babbitt Brothers's sold its canyon stores in 1999, ending nearly a century of community involvement at the South Rim.⁶⁵

Most of the park's present concessioners are rafting companies, which numbered twenty-one in 1973 but have since diminished to sixteen through voluntary closures and buyouts. The park relationship with commercial rafters began with short-term special use permits in the early 1970s, which were cancelled in 1984 with completion of the Colorado River Management Plan in favor of ten-year contracts. Today's companies operate under uniform seven-year contracts, effective 1 January 1996, that require payment of franchise fees on a sliding scale of gross receipts and set rates for essential services within park boundaries according to the Consumer Price Index. Rafting companies also pay into capital improvement accounts, which, since they have no facilities within the park, are used to mitigate river-runners' environmental impacts.⁶⁶

At the North Rim in 1996-97, AmFac purchased TW Recreational Services, making it the largest concessioner in the National Park System and sole purveyor of lodging, food, beverage, and park-based transportation services at Grand Canyon National Park. AmFac assumed TW's twenty-year contract, executed in January 1984, one that is free of franchise fees but requires annual contributions of 5 to 6.9 percent of gross to a capital improvement account. The government still owns utilities and tourist infrastructure acquired from the Utah Parks Company, but the concessioner has since added employee dormitories, dining facilities, and minor structures that are to be amortized over a thirty-two-year period. Little has changed in the way of visitor services surrounding Grand Canyon Lodge, and the tourist season remains mid-May to mid-October, but revenues have risen to about \$7 million annually with increased visitation and higher prices.⁶⁷

Grand Canyon National Park Lodges, the official name AmFac chose to replace "Fred Harvey" in the early 1970s, remains the park's largest concessioner, with most of its \$70 million annual sales deriving, as they always have, from lodging, food and beverage, and retail sales. The company built the last of its major facilities in 1982-83, when twelve four- and sixteen-room motel units and the present service building were added to Maswik Lodge. These additions,

and subsequent renovation to existing buildings, account for the South Rim's 907 visitor rooms with 3,500 pillows, and approximately 1,200 seats within Grand Canyon Village and Desert View dining facilities. Such numbers are his-

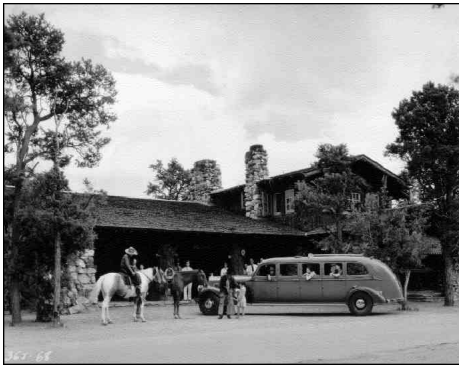


Figure 47. The Motor Lodge central services building, east side ca. 1935. Completed in 1927, with as many as 150 adjacent cabins by the 1950s, the motor lodge met the demands of economy-conscious visitors arriving in private automobiles. It was replaced in the same location by Maswik Lodge in 1983. GRCA 9954.

toric highs, yet demand still exceeds supply in the summer season, while room and cabin occupancy falls to 45 to 50 percent during winter months. The concessioner added to employee housing by renovating Maswik cabins for that purpose in the mid-1970s, building about thirty single-family homes, duplexes, triplexes, and apartments in 1982, and supplying many more units and trailers since, which, in combination with historic resi-

dences and dormitories, accommodate 950 permanent and 300 seasonal employees.⁶⁸

The Fred Harvey Company contract, amended since 1969 to raise franchise fees to 2.7 percent of gross and to end the exclusive transportation right, expired on 31 December 1998. Consummating a new agreement has been difficult. NPS policies have grown rigid, the result of a more democratic bidding process as well as diverging interests of the agency and the concessioner. Park administrators intend to relieve village congestion, in line with the trend toward fewer in-park accommodations systemwide, and have suggested cuts in visitor services that are slight but nonetheless unpalatable to concession managers. For their own part, concession decision-makers are far removed from a personal relationship with the park and adhere more than ever to the bottom line since AmFac became a wholly owned subsidiary of the Northbrook Corporation, itself a subsidiary of JMB Realty, the largest real estate holding company in the United States. The process is further complicated by new legislation, enacted a few months prior to the contract's expiration, that requires both

sides to start over once policies have been revised. This is the first NPS contract to be negotiated under the new law, and litigation is likely if the new prospectus eliminates preferential renewal, a right the concessioner believes is guaranteed on this occasion by the 1969 contract.⁶⁹

Meanwhile, both parties are conducting appraisals of concessioner assets in the event another corporation wins the next contract and must, by law, purchase AmFac's leasehold interest. Exact valuations are difficult because neither is entirely sure who owns what among several thousand structures. The price will be higher than at first glance since historic properties built by the Santa Fe Railroad will be evaluated at replacement cost rather than depreciated value. The concessioner's preliminary estimate is about \$150 million, a figure the NPS considers high. However, the amount is less important as an AmFac windfall than as an obstacle to potential bidders, new contract terms, and park plans.⁷⁰ Administrators would like to be rid of many structures, consistent with their vision for a less-cluttered park, but will be asking another bottom-line-oriented recreational corporation to pay for assets that may be torn down, depending on the vagaries of NPS planning. Any such company, if one can be found, will expect compensation through higher rates, a longer-duration contract than current law allows, or reduced franchise fees.



Figure 48. Aerial view of Grand Canyon Village facing southwest, 1989. GRCA 16478; photo by Greg Probst.

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