

Infrastructure

During Yellowstone's early years, construction of roads, buildings, and other facilities proceeded as opportunity and money allowed and was designed mostly to accommodate the growing list of visitor needs and the increasing park staff. As a result, by the 1930s the major visitor attractions were connected by two or three different roads. In addition to grand structures such as the Old Faithful Inn and the Lake Hotel, a motley assemblage of maintenance camps, woodcutters' cabins, sawmills, horse pastures, dairy operations, slaughterhouses, lunch stands, construction debris, and dump sites had sprung up along these roads.

Gradually, the practice of constructing park facilities wherever it appeared convenient became outmoded. When the park developed its master plan in 1973, the prevailing philosophy was to consolidate the infrastructure necessary to support visitors and park employees into a few developed areas. To preserve as much of the park as possible in its natural state, all land within the park boundaries was classified as either a "Natural Zone," which is to be left largely undisturbed, or a "Park Development

Zone," in which all roads, trails, visitor facilities, administrative headquarters, and employee housing are located. After peaking several decades ago, the total developed area declined, as roads, facilities, and service areas have been eliminated or consolidated; only about two percent of the park (less than 50,000 acres) is now so occupied. For example, what was once a stagecoach road over the top of Mount Washburn and later used by cars and bus tours has become one of the park's most popular hiking trails.



Consequently, the extent of development itself does not appear to represent a threat to the preservation of the park's cultural and natural resources. The adaptive use of historic park buildings, for example, helps provide the means to preserve them. Even wild-life species vulnerable to competition for space appear to have adapted and to be capable of surviving in marginally disturbed areas. The challenge for park managers has been to maintain the infrastructure in the face of growing visitation, decreasing budgets, and more stringent regulations. Compliance with the Uniform Federal Accessibility Standards (UFAS) and with fuel storage, hazardous materials, and other regulations requires significant money and staff time. The lack of a consistent cyclic maintenance program is increasingly evident, especially in the condition of park roads. While major failures are addressed, little or no preventive maintenance is regularly done.



In many ways, the park functions like a county, with a responsibility to provide the services and infrastructure that most citizens expect to obtain through public or private utilities. Park roads, buildings, trails, boardwalks, and water and sewage systems must all be properly maintained in order to ensure that visitors can enjoy the park in a safe and sanitary environment. Employees are housed and provided offices and workshops inside an array of administrative facilities. Equipment—everything from hand-held radios to the fleet of vehicles used for park business—is purchased, maintained, and repaired. In some cases, the park's geographic isolation, rigorous environs, and seasonal variations increase the costs and logistical challenges of keeping it running smoothly.

Park facilities today must meet the test of being well designed, energy-efficient, and cost-effective, yet not detract from the park's natural and cultural features that the public comes to experience. Yellowstone will make better use of new techniques and designs to build and maintain "sustainable" facilities for the future.



Planning Ahead

The design and construction of an infrastructure to serve visitors and support park operations requires that the park have its own professional planning and compliance staff. The regulations that result from laws such as the National Environmental Policy Act (NEPA) and the Endangered Species Act demand that park managers and interested citizens carefully consider the impacts

of possible alternatives not only for buildings and other development, but for natural and cultural resource issues. Currently, four planners and one assistant work to develop plans and assess the possible effects of projects on the natural, cultural, and human environments. When critical projects fall behind schedule, they jeopardize a variety of contractual agreements, and other priorities receive little attention. To help cope with the backlog, the park has temporarily reassigned staff from other divisions, but these personnel lack the training and experience to efficiently complete plans and the required environmental compliance.

Planners and other park staff are also challenged by the changing objectives of park management and constituent groups. By the time planning is completed for a project, public opinion and the bureaucratic response to it may have shifted, causing the best-laid plans to sit dormant; litigation and legislation have sometimes meant that the park must change priorities on short notice.

The park is currently operating from a Master Plan completed in 1973 that provided overall direction for resource management and development. Since that time, 22 major supplemental site, resource, or issue-specific plans have been approved. Planning projects underway in 1998–1999 included a new Winter Use Plan (see page 6–45); environmental assessments for road reconstruction, employee housing, and cellular phone service; a Commercial Services Plan (see page 6–26), a long-range bison management plan (see page 3–19); and groundwork for a new sewage treatment plant at Old Faithful. Standards for the design of park facilities and their immediately surrounding landscapes are being prepared to guide concessioners, contractors, and park employees in providing signs, walkways, roadways, exhibits, and buildings that are compatible with the park's historic character and resource protection goals.



Program Needs

- **ADDITIONAL STAFF AND TRAINING.** To support strategic park planning and development, the park needs additional professional staff to facilitate interdisciplinary teamwork and complete necessary documentation of plans and environmental compliance in a timely manner.

PARK PLANNING

STEWARDSHIP GOALS



Staff are well-trained; knowledgeable of planning, NEPA, and permit requirements; and sufficient to handle up to 30 separate projects in a timely manner to facilitate completion on schedule and within budget.



Updated management plans, prepared with public input aimed at achieving broad consensus, guide strategic long-term and issue-specific planning.



Planning and environmental compliance are considered integral to good decision making; staff are regarded as a positive resource available for service to all park constituencies.

CURRENT STATE OF RESOURCES/PROGRAMS



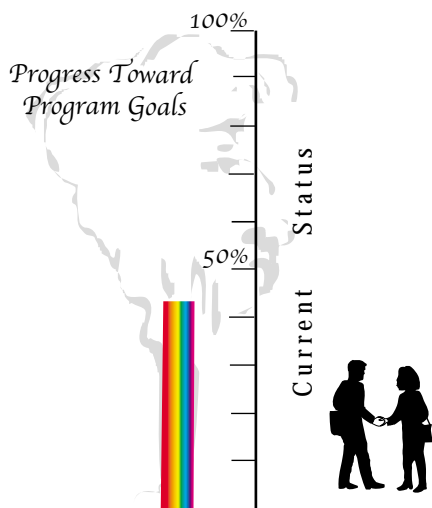
Staff struggle to keep up with major planning priorities, and generally can handle only a dozen or so projects at a time.



A 25-year-old Master Plan guides park planning, while issue-specific plans undergo internal and public scrutiny in an often contentious atmosphere.



Planning and compliance are often viewed as burdensome impediments to decision-making and implementation of management actions.



1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	\$213,000
Non-Recurring Funds	
One-time Projects	65,000
Staff	5.0 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.