

ENVIRONMENTAL ASSESSMENT CRYSTAL CAVE AREA REDEVELOPMENT AND REHABILITATION PLAN

LEGISLATION, POLICIES, GUIDANCE, AND PREVIOUS PLANNING

While there are numerous laws, policies, guidance, and previous planning documents that affect the management of these parks, those most applicable are listed below.

Laws and Legislation

The *NPS Organic Act of 1916* (Organic Act) (16 USC 1, 2–4) and the *General Authorities Act* (16 USC 1a–8) direct the NPS to conserve the scenery, natural and historic objects, and wildlife, and to provide for the enjoyment of those resources in such a manner as to leave them unimpaired for future generations. The *Redwood Act* (16 USC 1a-1) reaffirmed the mandates of the *Organic Act* and provided additional guidance on the national park system management as follows:

The authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the national park system and shall not be exercised in derogation of the values and purposes for which these various areas have been established. (16 USC 1a-1)

The *National Historic Preservation Act* (NHPA), passed in 1966, as amended, established the U.S. policy of preserving history, while balancing that preservation with concerns for current, efficient use of property. Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (Advisory Council) a reasonable opportunity to comment on such undertakings. The procedures in this part define how federal agencies meet these statutory responsibilities. The section 106 process seeks to accommodate historic preservation concerns with the needs of federal undertakings through consultation among the agency official and other parties with an interest in the effects of the undertaking on historic properties, commencing at the early stages of project planning. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties (§ 800.1 Purposes. (a) Purposes of the section 106 process).

One purpose of the *Native American Graves Protection and Repatriation Act of 1990* (25 USC 3001-3013; PL 101-601) (NAGPRA) is to provide greater protection for Native American burial sites and more careful control over the removal of Native American human remains, funerary objects, sacred objects, and items of cultural patrimony. NAGPRA requires that Indian tribes or Native Hawaiian organizations be consulted whenever archeological investigations encounter, or are expected to encounter, Native American cultural items or when such items are unexpectedly discovered on Federal or tribal lands.

The *Clean Water Act* (33 USC § 1251 et seq.), passed in 1972 as amendments to the *Federal Water Pollution Control Act*, and significantly amended in 1977 and 1987, was designed to restore and maintain the integrity of the nation's water. It furthers the objectives of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters and of eliminating the discharge of pollutants into navigable waters. It establishes effluent limitation for new and existing industrial discharge in U.S. waters; authorizes states to substitute their own water quality management plans developed under section

208 of the act for federal controls; provides an enforcement procedure for water pollution abatement; and requires conformance to permits required under section 404 for actions that may result in discharge of dredged or fill material into a tributary, wetland, or associated water source for a navigable river.

Section 504 of the *Rehabilitation Act of 1973* (29 USC 794 PL 93-112) and the *Architectural Barriers Act of 1968* (42 USC 4151) require that programs be reviewed for accessibility for access and for federal services.

The *Federal Cave Resources Protection Act of 1988*, (16 USC 4301-4310; PL 100-691) Section 2c states, “It is the policy of the United States that federal lands be managed in a manner which protects and maintains, to the extent practical, significant caves.” Further, the “*Federal Cave Resources Protection Act of 1988* lists two purposes: a) To secure, protect, and preserve significant caves on Federal lands for the perpetual use, enjoyment and benefit of all people; b) to foster increased cooperation and exchange of information between governmental authorities and those who utilize caves located on federal lands for scientific, educational, or recreational purposes. To achieve these purposes, the Act instructs federal agencies to take action including (but not limited to): a) Identification of significant caves on federal land; b) regulation or restriction of use of significant caves, as appropriate; c) entering into volunteer management agreements with persons of the scientific and recreational caving community; d) appointment of appropriate advisory committees.

The *National Park Omnibus Management Act of 1998* (16 USC 5901-6011; PL 105-391) states that in part the purpose of the law’s second section (Title II) is: “to enhance management and protection of national park resources by providing clear authority and direction for the conduct of scientific study in the National Park System and to use the information gathered for management purposes; to ensure appropriate documentation of resource conditions in the National Park System.”

NPS Policies and Guidance

National Park Service *Management Policies 2006* (4.8.2.2) states: “The Service will manage caves in accordance with approved management plans to perpetuate the natural systems associated with the caves, such as karst and other drainage patterns, air flows, mineral deposition, and plant and animal communities. Wilderness and cultural resources and values will also be protected.”

Chapter 5 of *NPS Management Policies 2006* focuses on the management and treatment of cultural resources within units of the National Park System. The NPS will holistically approach the treatment of related cultural resources in a park. All cultural resource and natural resource values will be considered in defining specific treatment and management goals. Research will be coordinated and sequenced so that decisions are not made in isolation. Each proposed action will be evaluated to ensure consistency or compatibility in the overall treatment of park resources.

NPS Management Policies 2006 (9.1.5.1) states: “Water systems will be designed to maximally conserve water and the energy used in its treatment and distribution. Water supply and delivery systems will be designed and maintained to provide sufficient water to operate fire sprinkler systems and fire hydrants. . . Where efficient, rainwater should be collected for uses such as maintenance of landscape features and general cleaning.”

NPS Management Policies 2006 (9.1.5.2) states: “New wastewater systems, or extensions or expansions of existing systems, will be constructed only if a determination has first been made that reasonable conservation measures will not be sufficient to cover park needs. In the selection of an appropriate method of wastewater treatment, factors such as all-season reliability, regulatory and public health issues, cost-effectiveness, and minimum adverse impact on the

environment will all be considered. Alternatives to traditional methods may be used, especially in environmentally sensitive regions or in areas where water is in short supply. Where alternative technologies are used, such as composting toilets, there should be interpretation for visitors regarding the value of recycling organic solid waste. Wastewater will be adequately treated so that on its return to water courses or when recycled it meets or exceeds applicable state and federal water quality standards. Water and wastewater systems and their operators are subject to state and federal health standards.”

NPS *Management Policies 2006*, Section 8.2.5.1, establishes the policy for visitor safety. The NPS will strive to identify and prevent injuries from recognizable threats to the safety and health of persons and to the protection of property by applying nationally accepted codes, standards, engineering principles, and the guidance contained in *Director’s Orders* (DO)-50B, DO-50C, DO-58, DO-83, and their associated reference manuals. The saving of human life will take precedence over all other management actions as the NPS strives to protect human life and provide for injury-free visits. The NPS will do this within the constraints of the *1916 Organic Act*. The primary – and very substantial – constraint imposed by the *Organic Act* is that discretionary management activities may be undertaken only to the extent that they will not impair park resources and values.

Section 1.9.1.4 of NPS *Management Policies 2006* establishes the foundation for employee safety and health. The safety and health of employees, contractors, volunteers, and the public are core NPS values. In making decisions on matters concerning employee safety and health, NPS managers must exercise good judgment and discretion and, above all, keep in mind that the safeguarding of human life must not be compromised. The NPS must ensure that all employees are trained and informed on how to do their jobs safely, and that they have the necessary clothing, materials, and equipment to perform their duties with minimal personal risk.

Director’s Order 83: Public Health (DO-83) outlines what the NPS will do to ensure compliance with prescribed public health policies, practices, and procedures with respect to all public health activities within areas of NPS jurisdiction (NPS 2004).

Director’s Order 12: Conservation Planning, Environmental Impact Analysis and Decision-Making (DO-12), and accompanying Handbook, set forth the policy and procedures by which the NPS carries out its responsibilities under the *National Environmental Policy Act* (NEPA). DO-12 is the governing policy and procedures for how the NPS complies with NEPA. The DO-12 and Handbook lay the groundwork for the way the NPS approaches environmental analysis, public involvement, and resource-based decision-making.

The Pacific West Region directives PW-047 on Energy Management and Water Conservation, The Green Energy Parks Program; and, PW-048 Sustainable Design and Construction Practices need to be applied to park projects. These directives provide guidance and regional policy on energy management, sustainability, and construction practices.

PREVIOUS PLANNING AND OTHER GUIDANCE

There are a number of key park planning documents that affect this project and are described below.

The *Sequoia and Kings Canyon National Parks General Management Plan* (GMP) (2007) establishes a vision for what the parks’ should be, including desired future conditions for natural and cultural resources, as well as for visitor experiences, and includes a comprehensive river management plan for rivers within the parks’ that have been designated by Congress as components of the national wild and scenic rivers system. Per cave management in the parks, the GMP states that significant caves will be

secured, protected, and reserved for the perpetual use, enjoyment and benefit of all people. Caves will be managed to perpetuate karst processes, airflow, mineral decomposition, plant and animal communities, and wilderness and cultural values. The GMP states that Crystal Cave will provide the primary public opportunity to experience the parks' significant cave resources. It also states that a limited number and type of tours will be provided at Crystal Cave. An additional relevant key element of the GMP is to make facilities, including utilities, more resource-efficient and to implement water conservation measures.

The *Sequoia and Kings Canyon National Parks Comprehensive Plan for Resource Education* (NPS 2006) sets the overall vision for interpretive services and education for the parks. Within the plan, the vision for Crystal Cave was reiterated – to provide the primary opportunity for the public to experience the parks' significant cave resources. Also, the plan established the vision and purpose for interpretive programs, to involve visitors in experiencing the parks' resources and to provide interpretive information and informed perspective regarding park resources and mission for the purpose of building and sustaining public support. The SNHA is established through the plan as the key partner to provide outreach and educational services, and to provide visitors with the opportunity to purchase information about the parks and the natural world.

The 1997 *Cave Management Plan* (NPS 1997) set goals for cave management in the parks. The plan identifies administrative and regulatory actions involving the establishment of guidelines, regulations, a permit system, a monitoring system, and a classification system for park caves, all of which are designed to ensure protection of cave resources and visitor safety.

The *Secretary of the Interior's Standards for the Treatment of Historic Properties* (26 CFR Part 68 in the July 12, 1995 Federal Register (Vol. 60, No. 133)) (Standards) (NPS 1992) are used to guide management decisions in preserving historic properties. The Standards are used to plan for the protection and treatment of historic structures and cultural landscapes to maintain their integrity.

The *Sequoia and Kings Canyon National Parks Architectural Character Guidelines* (NPS 1989) define the appropriate architectural style for new development and replacements for old facilities within the parks, in an attempt to reinforce the integral identity of the parks. The document defined architecture appropriate for new development work in SEKI based on the following traditional premises:

1. National Parks should have an architecture that contributes to the understanding that they are special places that require special attitudes and behavior on the part of park visitors.
2. National Parks should be developed so that architectural theses are consistent throughout the developed areas of the park.
3. New development work in older National Parks should be designed in a way that establishes a continuity with the most successful design elements of past park projects.
4. Ultimately, park architecture has a significant impact on how visitors perceive and use the park.